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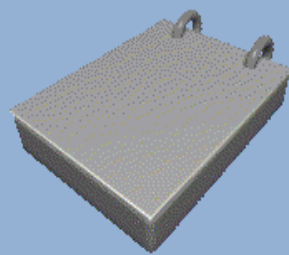
Bridging the Gap: ICT and OER for Equitable and Quality Rural Education in China



Dr. Yuchi ZHAO

UNESCO International Research and Training Centre for Rural Education

Ministerial Forum “Global Dialogue on ICT and Education Innovation”
Moscow, Russia 18-19 April 2018



To include

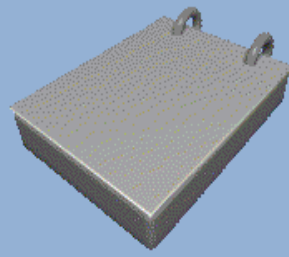
- **Contextualizing the Introduction: An Overall Picture of China's Rural Development**
- **Education and Training for Rural Transformation: at a glance**
- **Bridging the gap: the role of ICT and OER in rural education development**
- **About INRULED: A Brief Introduction**



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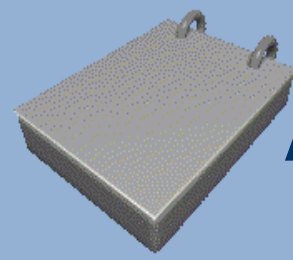
Contextualizing the Introduction: An Overall Picture of China's Rural Development



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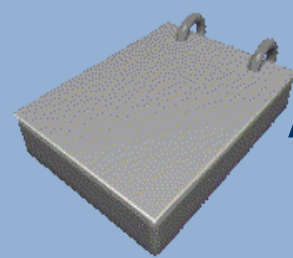


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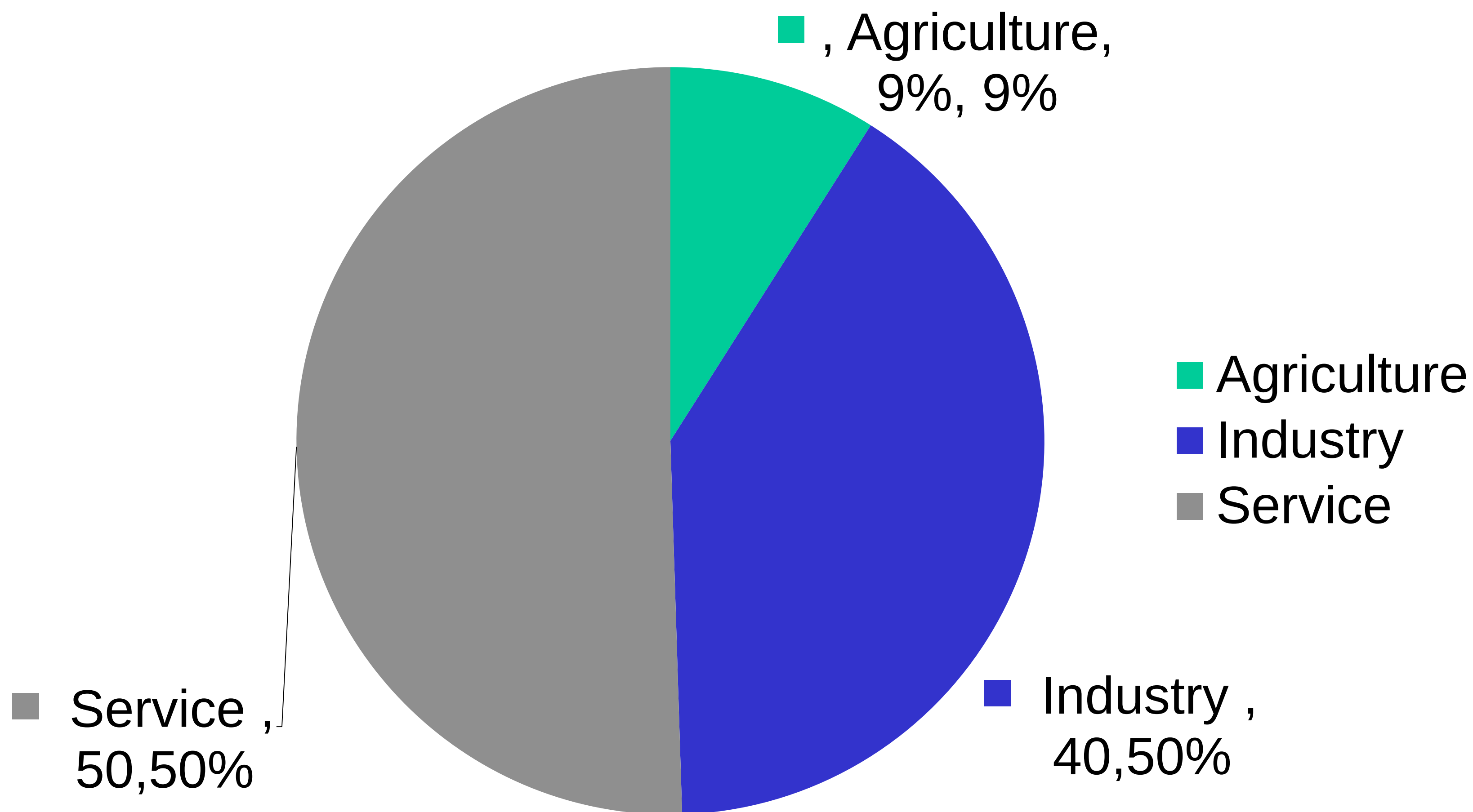
An Overall Picture of Rural Development in China

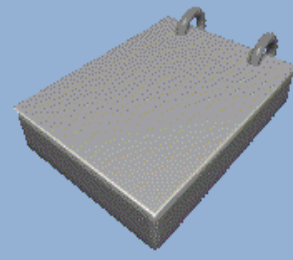
Territory Area	9.6 million sq. km
Population	1.37 billion (2015), annual net increase of 6.7 million, 4.96% growth
Rural population	603.6 million, 46% of total population (2015), net annual decline 1.3% via urbanization
Rural Migrated Population	ca. 169 million, 28% of rural population (reported in 2015)
GDP	10.8 trillion USD (2015)
Per capita GDP	7,880 USD
GDP growth	6.9%



An Overall Picture of Rural Development in China

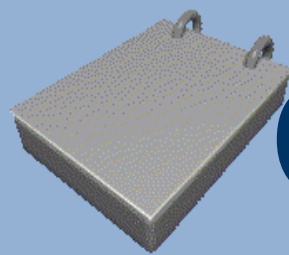
GDP Structure in 2015



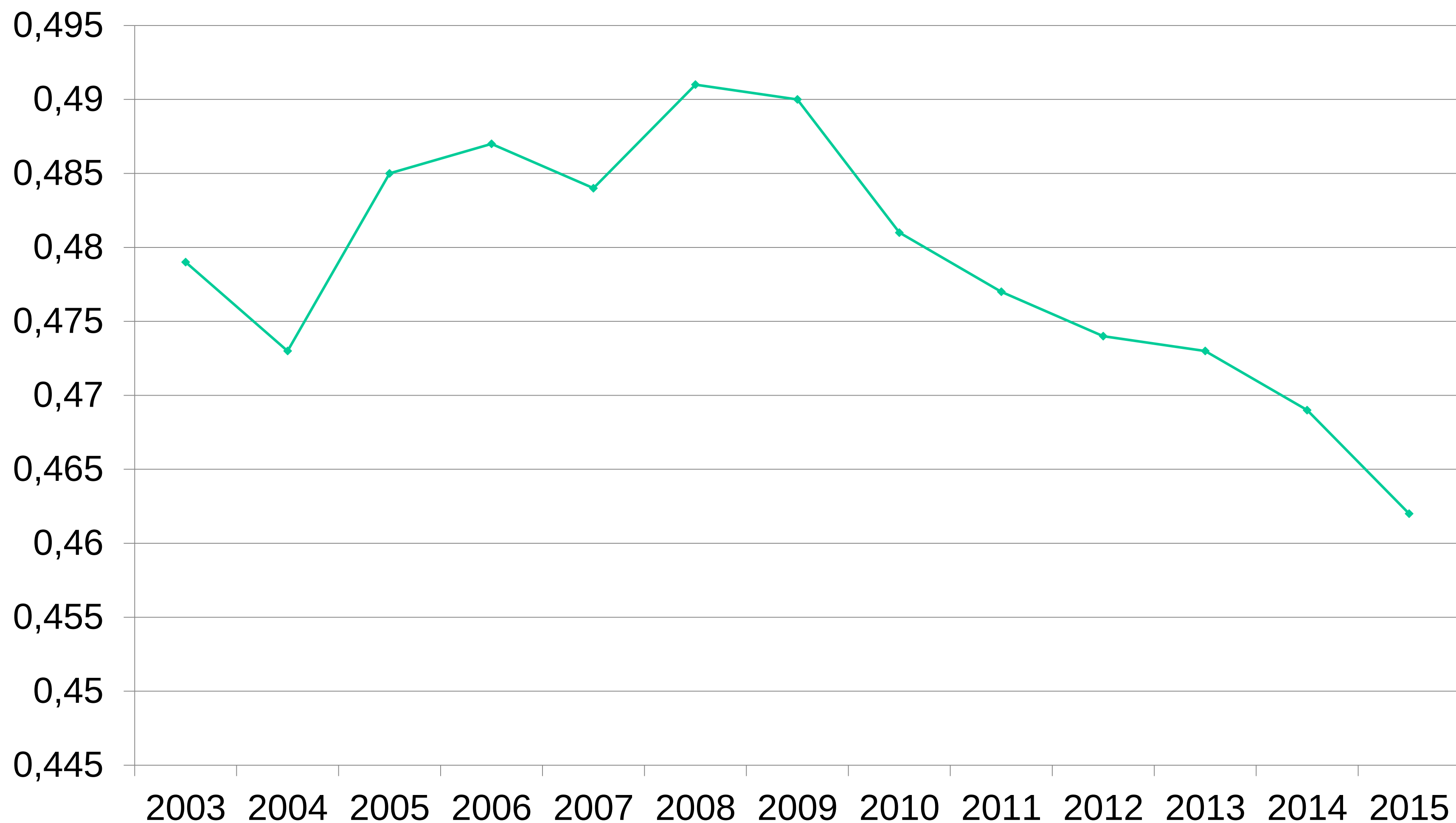


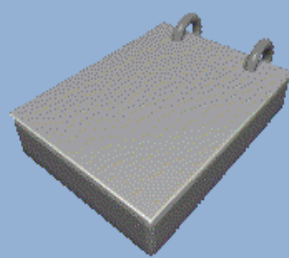
An Overall Picture of Rural Development in China

- Rural Poverty: 70 million (2015) under poverty line (1 Dollar PPP)
- Per capita income of farmers: 11,422 Yuan(1,842 dollar), annual increase 7.5%
- Development Quality:
 - Disparity: Gini Co-efficient 0.46 (2014)
 - Unbalanced Regional Development (Shanghai-Gansu Disparity)

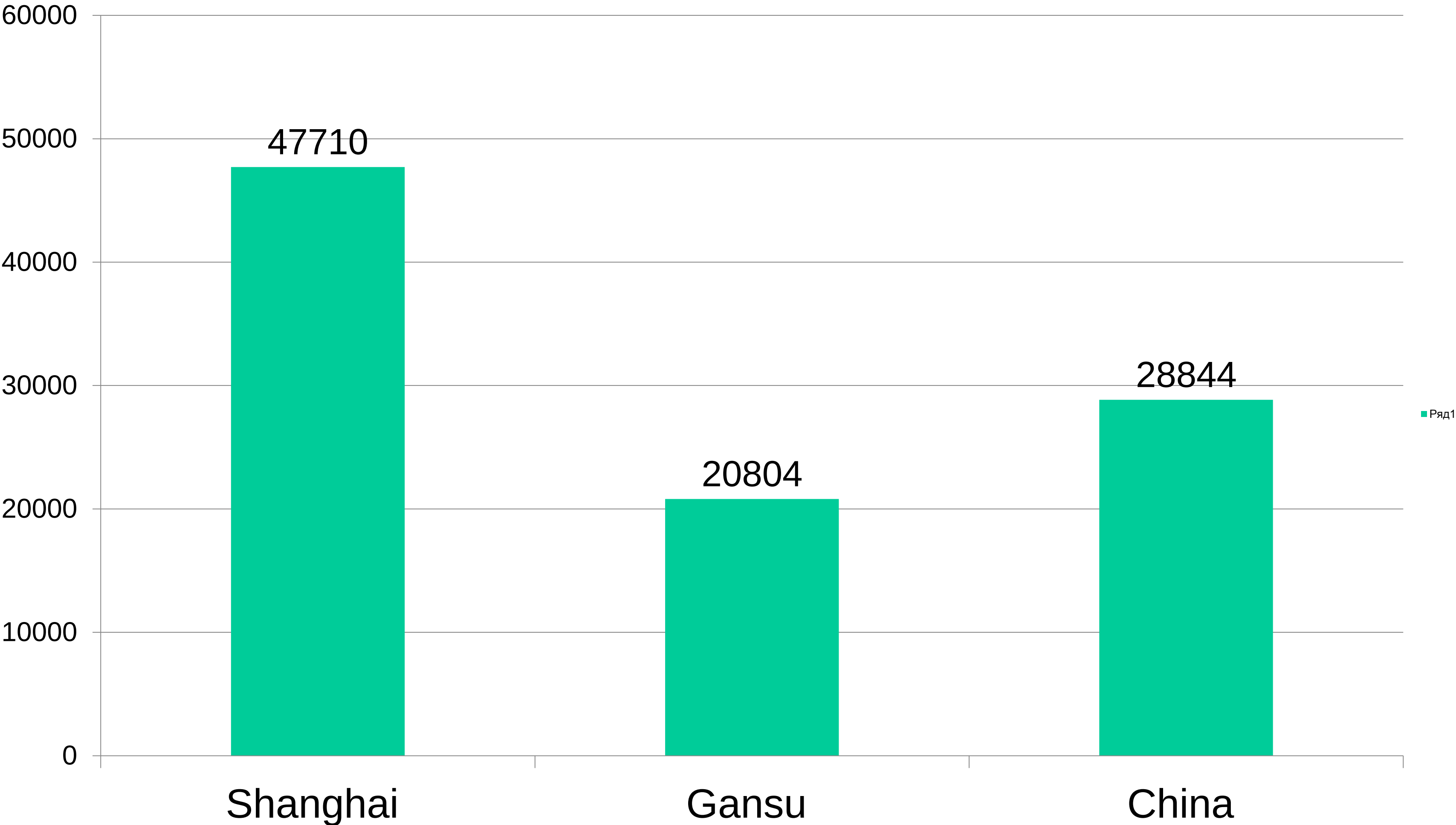


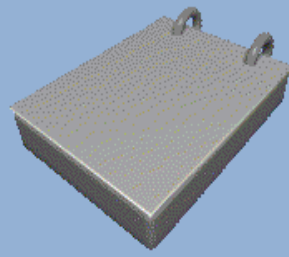
Gini Co-efficient in China





2014 per capita income Shanghai, Gansu and National Average





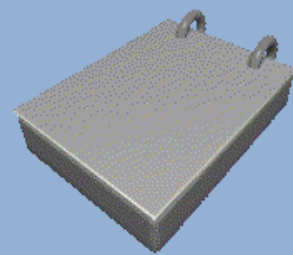
Education and Training for Rural Transformation: Policies and Practices in China



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Rural Education Sytem: At a Glance(1)

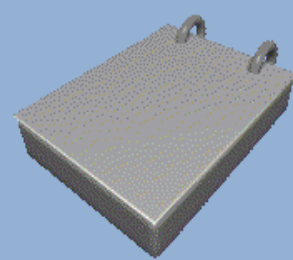
Literacy Education for
Rural People

Compulsory Basic
Education

**Rural Education
and Training in
China**

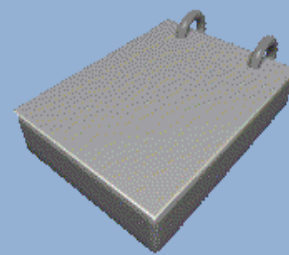
Adult
Education/Training

Rural Vocational
Education

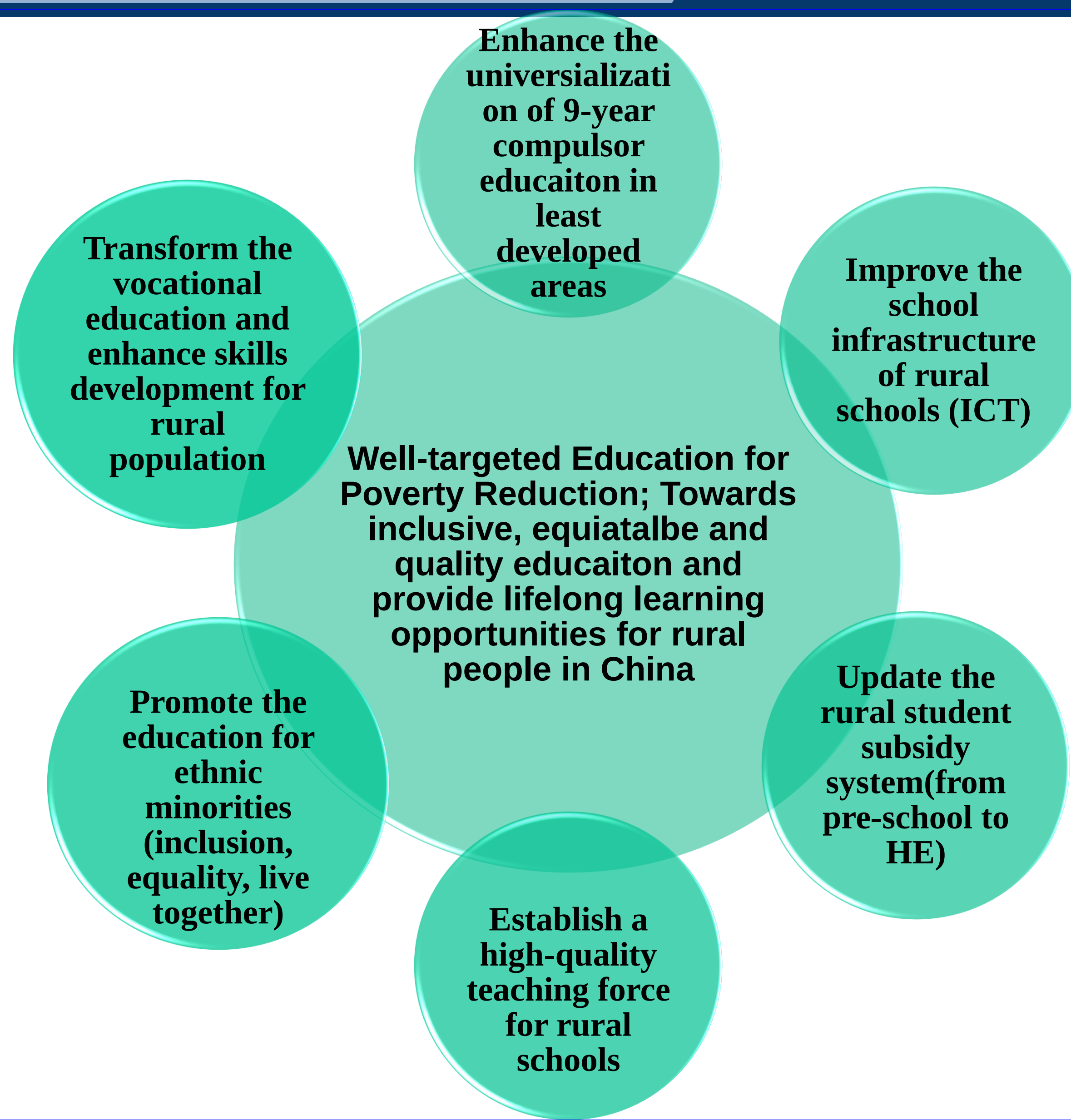


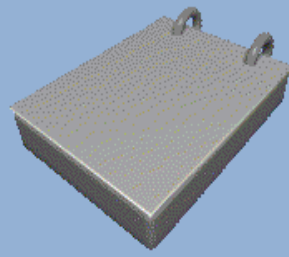
Rural Education System: at a glance (2)

Approaches	Description	Responsible Agency
Literacy Education for Rural People	1.Mainly implemented in 1950s-1960s, 1980s-1990s. 2. Basic literacy and Numeracy (Reading, writing, calculating)	Ministry of Education Local Government Village Leaders
Compulsory Basic Education	1.9 years Compulsory Basic Education System 2.Primary School (6 years) 3. Junior Secondary School (3 years)	Ministry of Education Local Education Authorities
Rural and Agricultural Vocational Education	1.County Vocational Education Center (1990s) ; Agricultural vocational schools 2.Professional Agricultural College	Ministry of Agriculture Ministry of Education Local government
Adult Education and Skill Training	1.Distance Education 2.Farmer's Training Programs 3.Village Leader's Training Programs 4.Rural Cadres Training	Ministry of Agriculture Central Radio-TV School (Open University now)



Well-targeted Poverty Reduction-Education





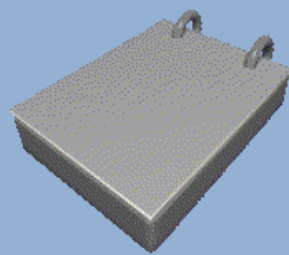
Bridging the gap: the role of ICT and OER in Rural Education Development



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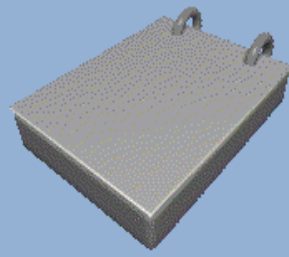


Education 2030: the role of ICT



To achieve the goal of inclusive and equitable quality education and lifelong learning by 2030, **ICT**-including mobile learning-must be harnessed to strengthen education systems, knowledge dissemination, information access, quality and effective learning, and more efficient service provision (UNESCO, 2015).

We recommend that ICT be used to deliver education and training, improve quality, and further reach vulnerable and underserved groups including rural



Key Challenges in ‘Small-size Schools’

Quality Issues

Offering Compulsory Curriculum

Outdated Teaching

Lower-Quality of learning

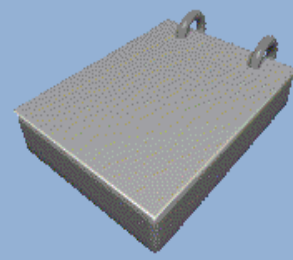
Teacher Issues

Difficult to recruit qualified teacher

Difficult to retain qualified teacher

In-service Teachers ‘unqualified’

Small-size school is the weakest part of basic education in China. So far, there are over 93,035 such schools, with 4,025,280 students in rural China in 2015.



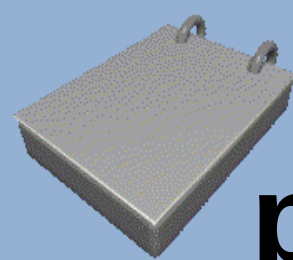
The keys to solve the problem of rural education

Paying attention to equity and humanism: promoting balanced development of compulsory education.

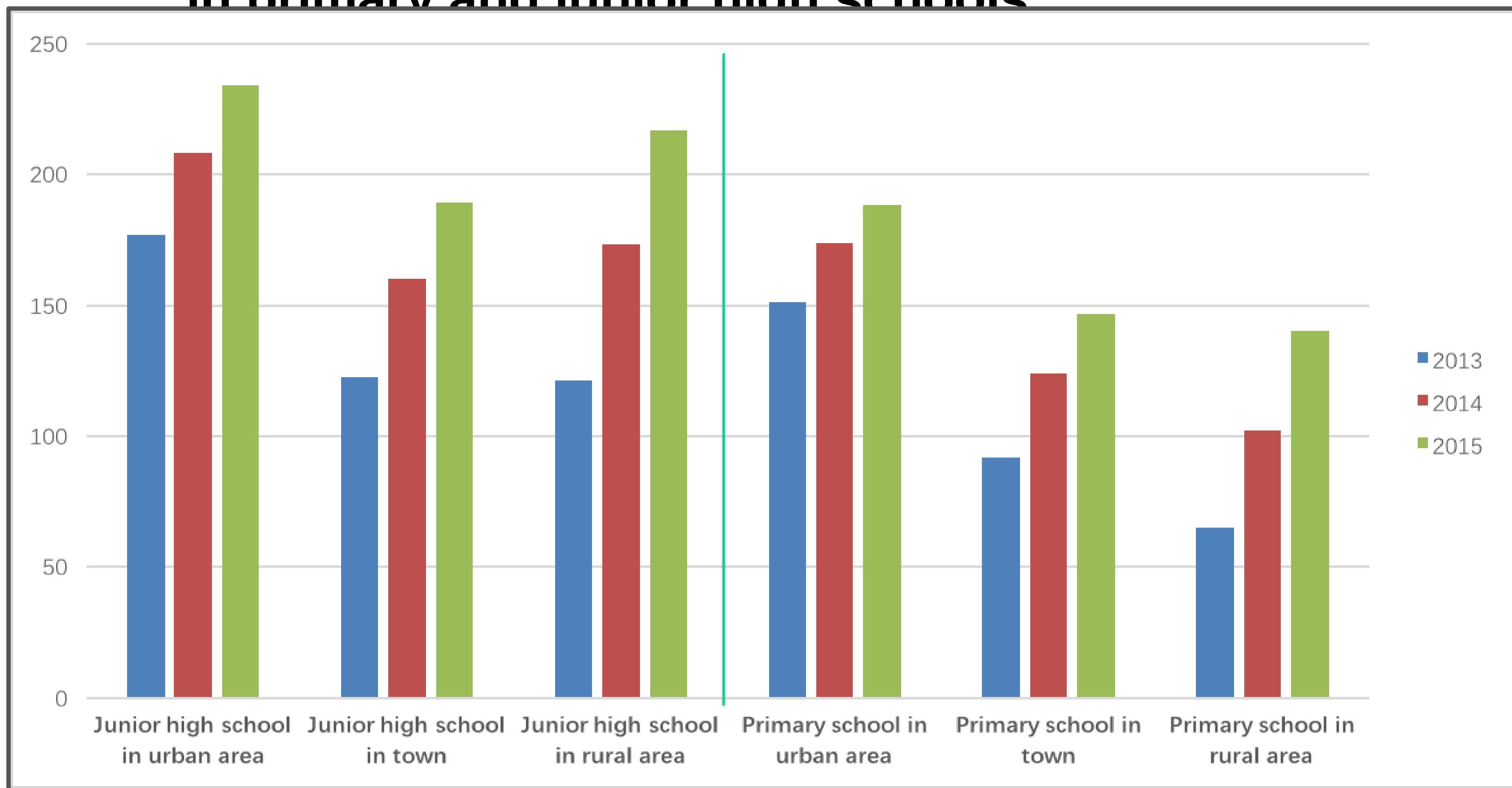
From quantity to quality: improve the level of rural education modernization and comprehensively improve the level of rural compulsory education

Promoting education poverty alleviation by means of informatization: using the “**Distance class, Expert -Teacher Class, Best School Cyber Class**” to spread quality resources and assist the schools in rural areas to open compulsory courses.

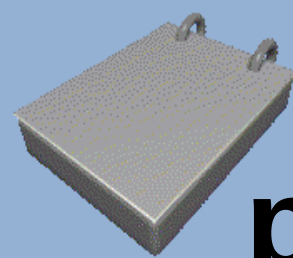




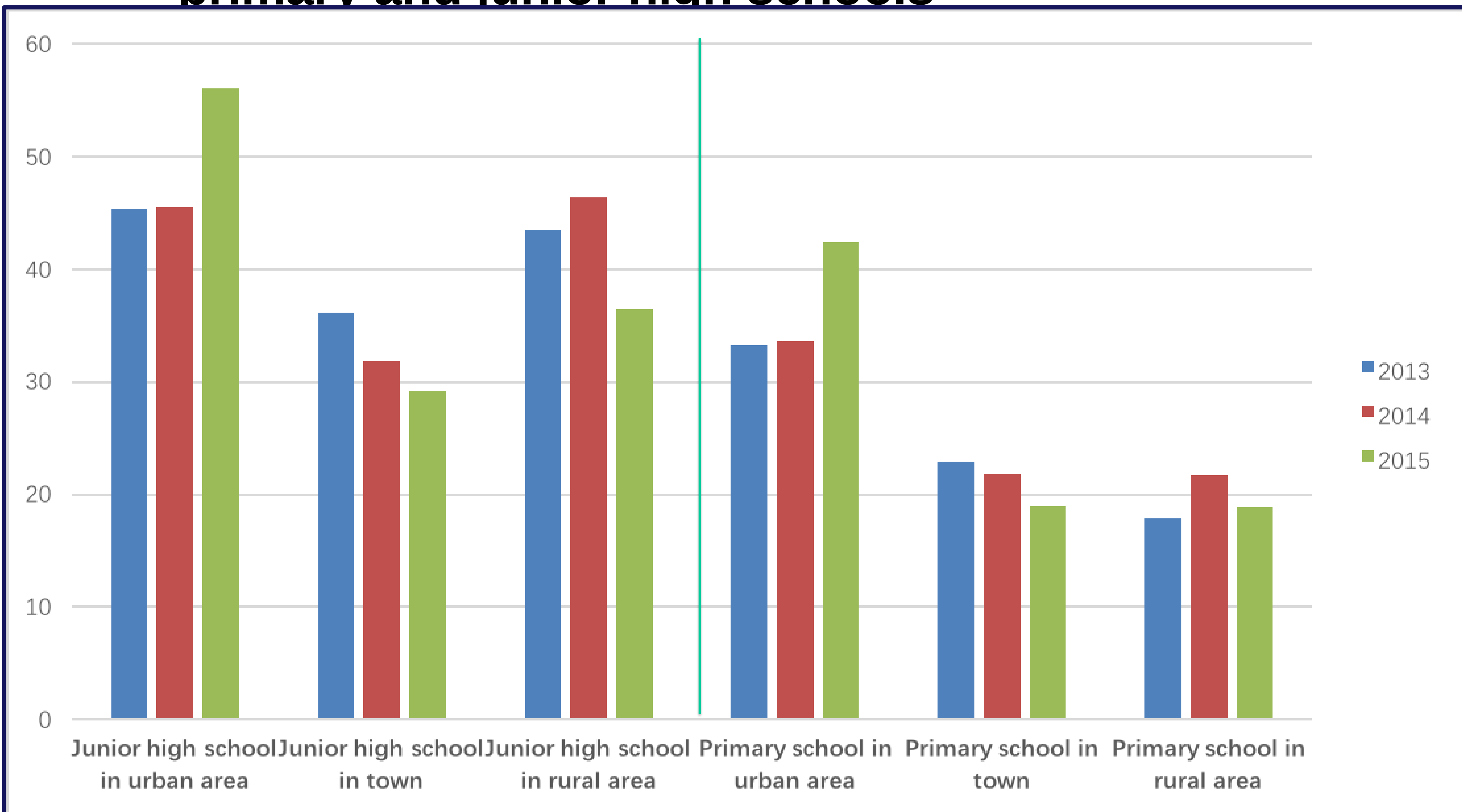
Number of multimedia classrooms per ten thousand people in primary and junior high schools



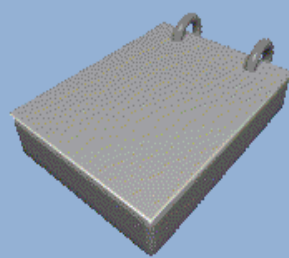
The overall number of network multimedia classrooms has increased significantly. The gap of school informatization in urban and rural schools is relatively large, while the gap in town and rural schools is mainly eliminated. The development speed of informatization in town and rural schools is higher than that



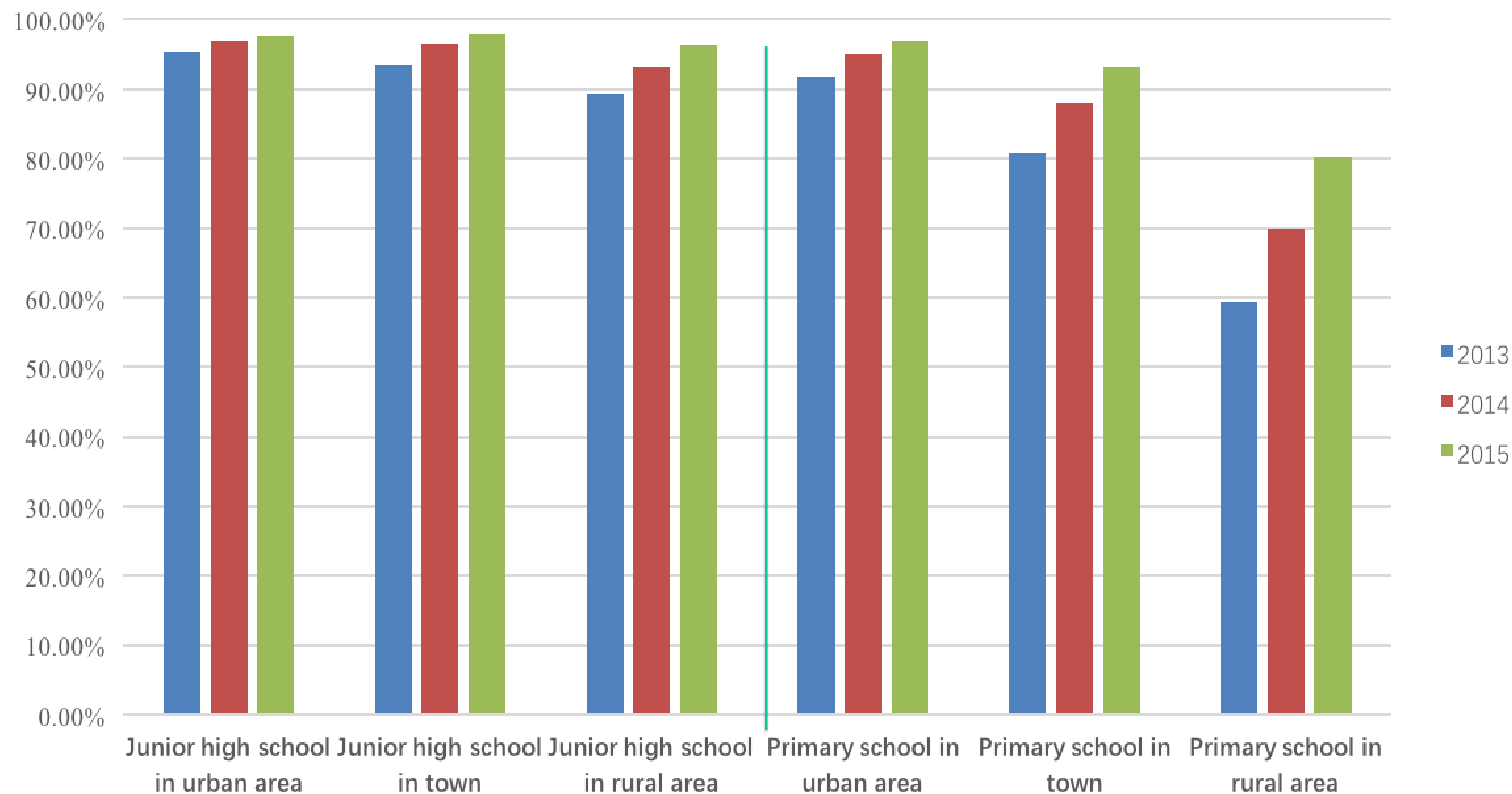
Number of tablet computers per ten thousand people in primary and junior high schools



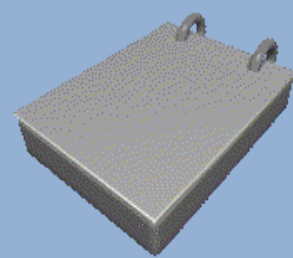
Overall, the number of tablet computers in urban schools is 1.5-2 times that of rural schools. Rural and town primary schools are lagging behind other schools in the ownership of tablet computers. The informatization construction level of junior high school is higher than that of



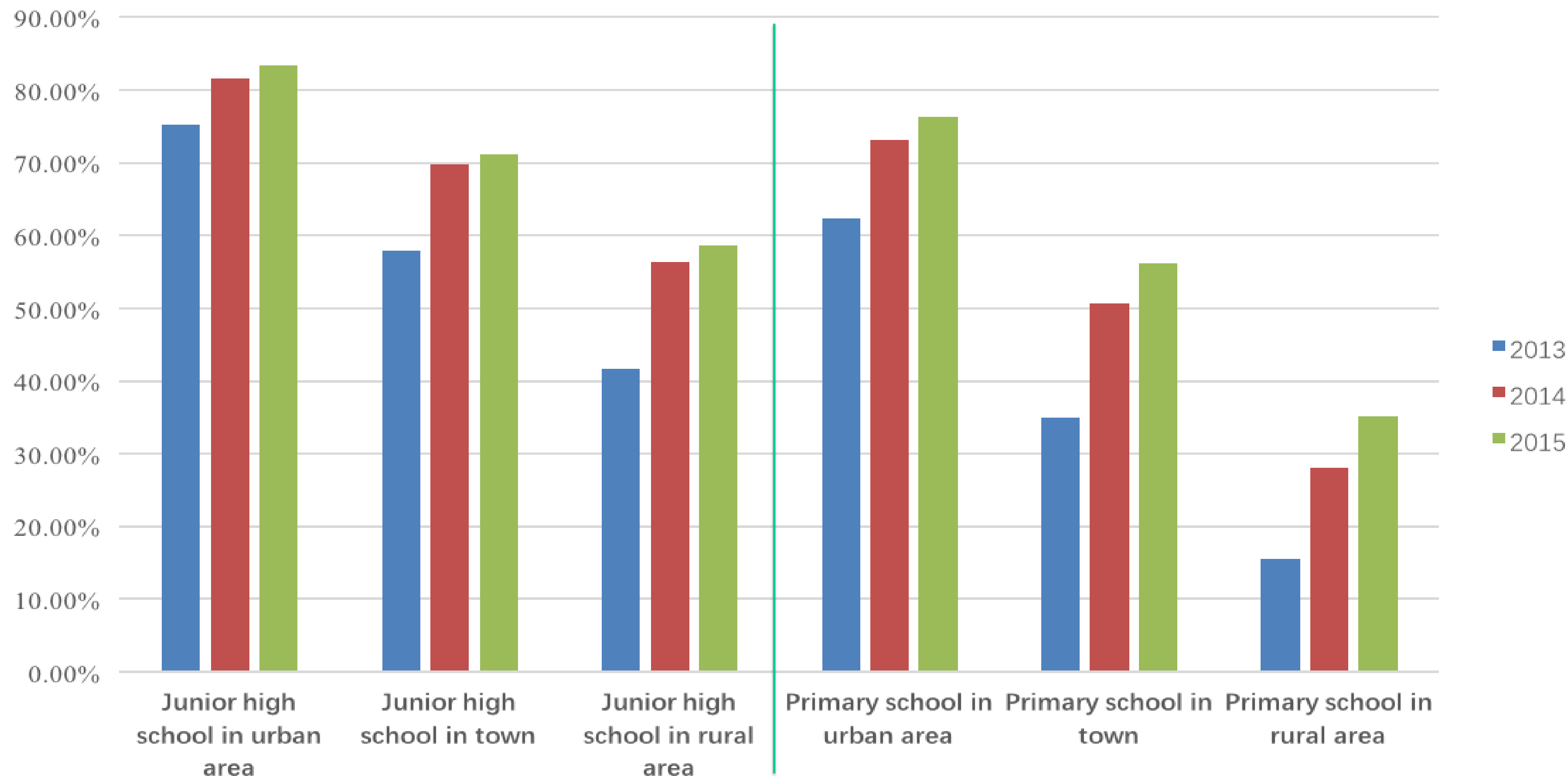
Ratio of schools that have Internet access



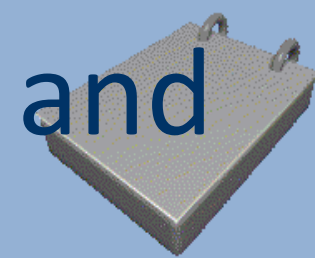
Overall, the ratio of schools accessing the Internet is as high as 87%. Among them, the ratio of urban schools, towns and rural junior high school is more than 96%. The ratio of rural primary schools is relatively low, but it increased 21% from 2013 to 2015.



Ratio of schools that set up campus network



Overall, the ratio of schools that established campus network is as high as 63.47%. Among them, the ratio of town and rural schools is 55.29%, however, the ratio of rural primary schools is only 35.14%. The development speed of informatization in town and rural schools are higher than that of urban schools.



Modern Distance Education Project for Rural Primary

Middle Schools (2003-2007)

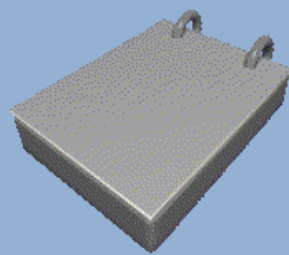
Modern Distance Education Project for Rural Primary and Secondary Schools, initiated by the State Council of the People's Republic of China in 2003, aims to promote quality education resources in urban and rural areas and improve the quality and efficiency of rural education by leveraging ICT. The objective of the project is to equip around 110,000 rural primary schools with CD-ROMs and sets of teaching CDs, 384,000 rural primary schools with satellite teaching equipment and 37,500 rural junior high schools with computer classrooms.

Model 1:
CD/DVD-
equipped
teaching centre

Model 2:
satellite-receiving
stations

Model 3:
computer
classrooms for
rural
secondary
school



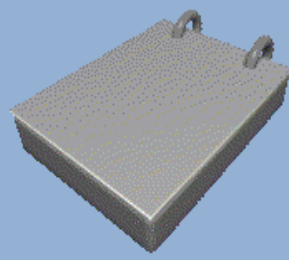


New Development (since 2010)



Distance Delivering
(专递课堂)

Synchronous classroom by
Expert teachers
(名师同步课堂)



OER in China : Multi-stakeholders

Government

e.g.

- National Public Service Platform for Education Resources (Ministry of Education)
- National Digital Culture Network (Ministry of Culture)

University

e.g.

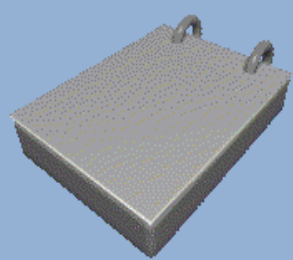
- National Science Data Sharing Project (Chinese Academy of Science)
- National E-Learning Resource Centre (The Open University of China)
- XuetangX (Tsinghua University)

Companies

e.g.

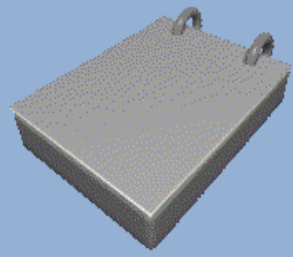
- iCourse (Higher Education Press)
- NetEase Open Course (NetEase)
- Baidu Wenku (Baidu)
- 101 Education PPT (NetDragon)





Multi-stakeholder: Government Policies





2014 policy: “Three access and two platforms”

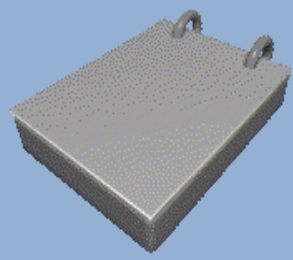
2014 “Implementation plan for expanding quality educational resource coverage with information technologies” highlights **“three accesses and two platforms”**.

Three accesses:

- Every school has access to broadband networks;
- Every class has access to quality resources;
- Every student has access to online learning space.

Two platforms:

- National platform for educational resource;
- National platform for educational management.



National Public Service Platform for Educational Resources

In 2012, The National Public Service Platform for Educational Resources was formally put into online trial to fully promote the co-sharing and co-construction of digital educational resources. This is an important measure for accelerating the process of education informatization and striving to meet the educational needs of the people. It is an innovation of Chinese Government to provide the basic public educational services.

- Launched and managed by the National Centre for Educational Technology (NCET);
- Programme “One teacher, one demonstration lesson” by using ICT and quality educational resources;
- Teacher participation and teacher ownership: encouraging a culture and platform for sharing among teachers;
- Contents: over 10 million videoed demonstration lessons on line.

ICT for Non-formal education: two cases

Within the Education 2030 framework, literacy in a digital world is to ensure that both men and women are empowered with the abilities to use digital devices, and solve problems for effective and creative self-fulfillment in life, learning, work, and social activities at large.

Case Study 1

**

Enhancing Bilingual Literacy with Digital Means

Background



Place: Qiandongnan Prefecture, located in Guizhou Province in Southwest China

Population (2015): 4,735,400; with 32 ethnic minorities (80.2% of the total population)

Challenge: Some ethnic minorities are not fluent in the official language Mandarin → This undermines their abilities to **reach out to communities outside of their own** and to access necessary information to **improve their quality of life**.

Solution: Within the provincial bilingual literacy programme, the **local education bureau** designs a **context-friendly bilingual distance education** project on **literacy and skills development**

- Needs analysis: demographic data analysis; interviews; and narrative collections
- Design of distance bilingual education curriculum
- Holistic digital training sessions for frontline trainers/facilitators
- Central Information Dissemination Station (county-level): to design and distribute knowledge packages to every village based on local needs
- Information Receiving Station (village-level): to transform the bilingual multimedia resources in accordance with local context
- Information Delivery Station (village-level): to provide courses to various age groups in accordance with the level of difficulties and theme relevance of the resources

Implementation



ICT for Non-formal education: two cases

Case Study 2

**

Harnessing ICT to Improve Vocational Skills

Background

- Place: Shiqiao Adult School, located in Dangtu County of Anhui Province in Central China
- Aim: a) to help the learners **master ICT skills**; and b) to disseminate the **knowledge of vocational skills** through online platforms and **increase the income** of rural community members
- Target groups: the employed and unemployed



Implementation

Design of 7 programmes	computer applications, secretary, accounting, tourism services and management, construction, car maintenance, and numerical control technology applications
Teaching mode: online self-study learning with the aid of onsite facilitators	Shiqiao Adult School: to provide teaching facilities, and supply the learners with the computer-aided instruction courseware, e-books and teaching videos
	Onsite facilitators: to support the learners by face-to-face and cell-phone teaching if necessary; and via online Q&A platform
Assessment: to obtain the technical secondary school diploma issued by the Provincial Education Department	To complete of the minimum learning time requirements
	To complete and score at least 60 points on the assignments uploaded online
	To pass the exams of computer application basics and the compulsory courses

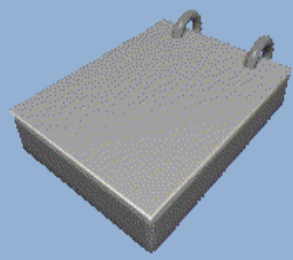
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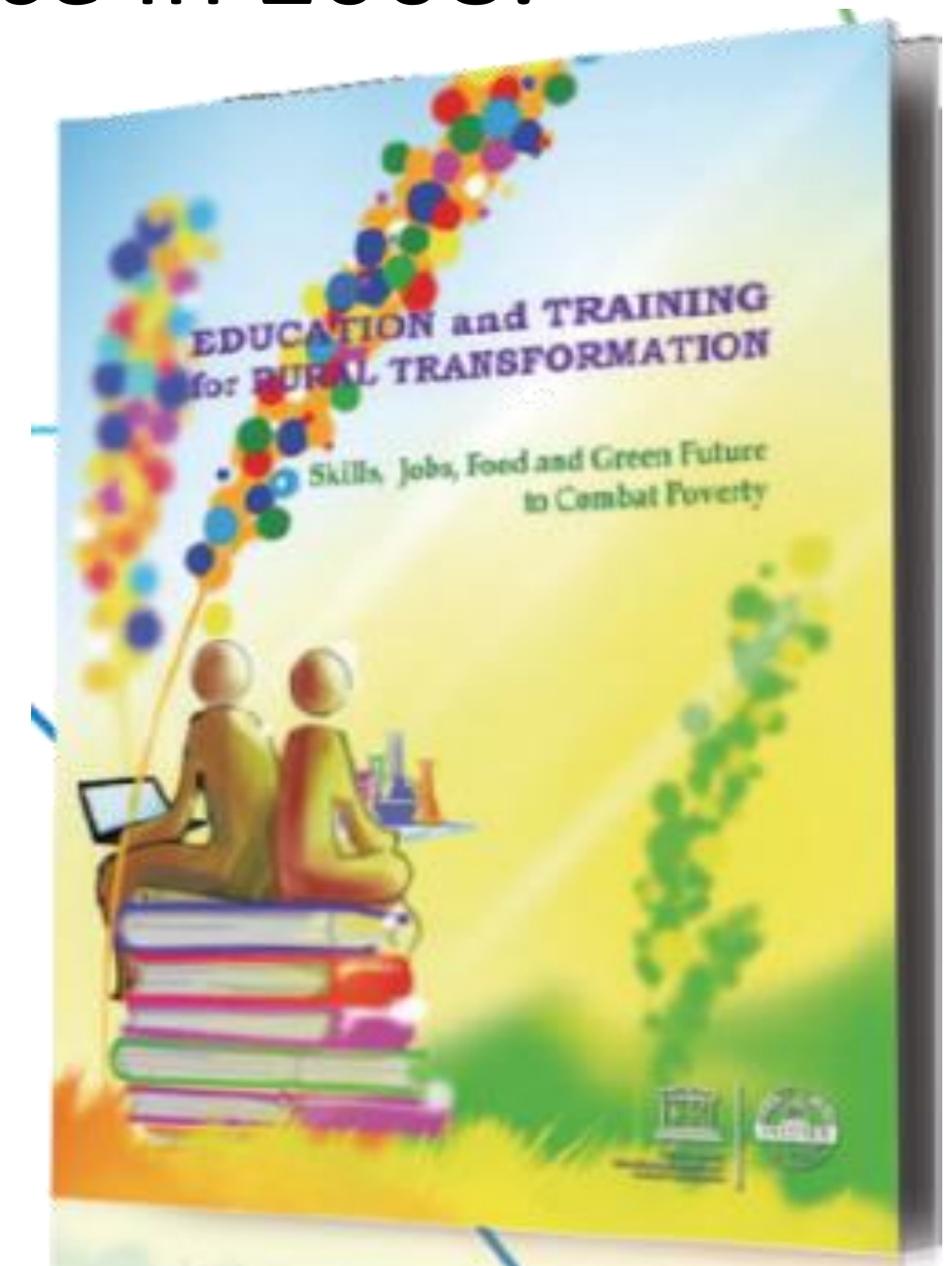


INRULED: a brief introduction

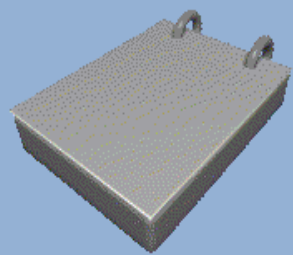
UNESCO International Research and Training Centre for Rural Education (**INRULED**) was jointly founded by the Chinese government and UNESCO in 1994 and moved to Beijing Normal University (BNU) from Baoding, Hebei Province in 2008.

Education for Sustainable Rural Development: Our Core Concern

Our **mission** is to promote socio-economic development in rural areas by bringing about positive changes in the thinking and behavior of rural people, who make up the majority of population in developing countries, contributing to the achievement of SDG 4.



Education and Training for Rural Transformation: Skills, jobs, food and green future to combat poverty, 2012



INRULED: a brief introduction

Objectives

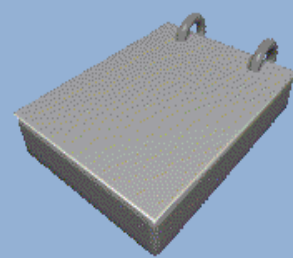
- To promote international research and development of methods and techniques of rural education;
- To promote consultation and cooperation among member states by devising policies and strategies in the areas of human resource development for rural areas;
- To create a wide network for exchange of academic and technical information in the field of rural education among experts in various countries;
- To coordinate cooperative research activities and provide expertise, advice, and facilities for laboratory research and field work to international experts;
- To organize international training workshops and seminars on special subjects and provide fellowships for international research;
- To produce and disseminate publications and materials for the various projects undertaken by the Centre.



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INRULED: a brief introduction

- **Goal: knowledge production relating to education and rural development, contributing towards policy development and education planning in member states.**

Thematic Areas (2017-2021)

Skills Development for Rural

Transformation:

- Skills development for rural people;
- Rural community learning centres;
- Learning villages.

(To support SDG 4.6, 4.4)

Quality Teachers for Rural Schools:

- Support Systems for Rural Teachers' CPD;
- Rural schools' improvement;
- Equity and quality in rural education.

(To support SDG 4.C, 4.1)

Gender equality and women leadership:

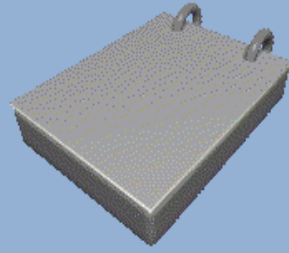
- Empowering women and girls in non-formal education;
- Promoting gender equality and women leadership in schools.

(To support SDG 4.5)

ICT in Education for Rural Development:

- The role of ICT in non-formal education and rural development;
- The role of ICT in facilitating rural schools.

(To support SDG 4.b)

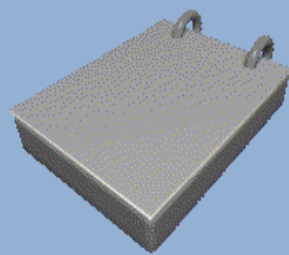


Two concerns (questions)

Question 1: Is the advancement of ICT and OER increasing or decreasing digital divide (gap in digital use)? If increasing the gap, how can we reverse the situation?

Question 2: How can we find replicable and affordable solutions for the rural education development, and education in the least developed countries?

Question 3: How can we develop localized and contextualized contents for OER?



Thank you.



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