



1. Project Data

Project ID

P152860

Project Name

YN Early Childhood Education Innovation

Country

China

Practice Area(Lead)

Education

L/C/TF Number(s)

IBRD-86710

Closing Date (Original)

31-Dec-2021

Total Project Cost (USD)

49,783,697.66

Bank Approval Date

09-Dec-2016

Closing Date (Actual)

31-Dec-2021

IBRD/IDA (USD)
Grants (USD)

Original Commitment

50,000,000.00

0.00

Revised Commitment

49,783,697.66

0.00

Actual

49,783,697.66

0.00

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2. Project Objectives and Components

a. Objectives

According to the Loan Agreement (p. 6) and the Project Appraisal Document (PAD, p. 6), the project's objective was "to improve the access and quality of early childhood education (ECE) provision in the project counties in Yunnan Province."

At a 2020 restructuring, the target for one outcome indicator (percent of beneficiaries who are female) was reduced, but the project exceeded both the original and revised targets. The wording of another outcome



indicator (percentage of preschool teachers and staff with professional certification) was changed and its target increased. A split rating is not required in either case.

b. Were the project objectives/key associated outcome targets revised during implementation?

Yes

Did the Board approve the revised objectives/key associated outcome targets?

Yes

Date of Board Approval

27-Mar-2020

c. Will a split evaluation be undertaken?

No

d. Components

The project was approved with four components:

1. Increasing access to ECE programs (appraisal: US\$42.41 million; actual: US\$36.88 million). This component was to construct and equip 15 kindergartens across seven project counties with a total of 138 classrooms, to provide project counties with model kindergartens; construct and equip two university-affiliated research kindergartens in Kunming University and Zhaotong University, with a total of 24 classrooms, to facilitate direct interaction between student teachers and children for practice teaching and research; pilot rural community-based ECE and parenting education centers in Weishan, Qiaojia, and Zhanyi counties, to increase the scope of project goals and benefits to the hardest-to-reach children in remote villages; and construct and equip an early childhood special education center in Kunming University, with six full-time special education classes and ongoing diagnosis and rehabilitation centers for zero- to six-year-olds with special needs. Project counties were chosen on the basis of poverty status, demand for ECE, government investment in ECE, and local government capacity and ownership.

2. Improving ECE quality (appraisal: US\$28.06 million; actual: US\$23.93 million). This component was to provide structured in-service training for all ECE teachers, managers, and staff, following a prepared set of 15 training packages; strengthen teacher education programs in the three participating universities (Kunming, Zhaotong, and Yunnan Normal Universities), at both the associate degree and bachelor's degree levels, through learning by practice, curriculum development, faculty training, study-exchange trips, and conferences; establish ECE research/training centers; develop an on-line resource bank and platform for ECE teaching and learning; and provide a standard package of teaching and learning materials in existing rural one-year pre-primary classes.

3. Creating an ECE enabling environment (appraisal: US\$0.33 million; actual US\$0.33 million). This component was to create a favorable policy and social environment, conducive to quality provision of ECE services, through development and piloting of ECE institutional quality standards; an information and advocacy campaign for ECE and scientific childrearing practices; and policy development on ECE.

4. Project management and monitoring and evaluation (M&E) (appraisal: US\$0.61 million; actual US\$0.61 million). This component was to support the project's management structure; implementation of its



Project Implementation Plan; training of project management personnel on procurement, M&E, financial management, and safeguards; and implementation of project M&E.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Total project cost at appraisal was US\$74.62 million, with US\$50 million financed by a loan from the International Bank for Reconstruction and Development (IBRD) and US\$24.62 million in counterpart financing from the Yunnan provincial government ((US\$0.24 million), the project counties (US\$14.14 million), and project universities (US\$10.24 million). During implementation, savings of US\$9.7 million was generated by lower-than-estimated prices for civil works contracts under the first and second components. Actual IBRD financing was US\$49.78 million, and total actual project cost was US\$61.75 million. According to the project team, actual spending by the provincial government, counties, and universities was in line with what was planned, taking the realized cost savings into account.

The project was approved on December 9, 2016 and became effective on June 1, 2017. It underwent a mid-term review in April 2019. A March 27, 2020 restructuring introduced minor revisions to its costs and results framework. The project closed as scheduled on December 31, 2021.

3. Relevance of Objectives

Rationale

The objectives were highly relevant to country context. Yunnan is the third-poorest province in China, measured by net income per capita. Over 65 percent of its population of 47 million people resides in rural areas, 22 percent live below the national poverty line, and one-third are ethnic minorities. In 2015, Yunnan's gross enrollment rate (GER) for three- to six-year-old children was 63.8 percent, over 11 percentage points below the national average (75 percent). The average student-to-teacher ratio was 21:1, compared with the national average of 18:1. Within Yunnan, there was significant urban-rural disparity. Rural prefectures had an ECE GER of 33 percent, while the capital city of Kunming had a GER of 95 percent. Rural schools were found to have large class sizes, lack of teaching and learning materials, and developmentally inappropriate teaching practices. Due to historically low public investment, most of Yunnan's kindergartens were private, functioning without an effective quality assurance system. Only about a third of all kindergarten teachers at the time of project appraisal had teaching certificates, and those teachers were deployed primarily in urban areas. While 50 percent of total kindergarten enrollment was rural, only 22 percent of certified teachers were serving in rural areas.

The objectives were also highly relevant to government policy. Although China does not have a specific ECE law, it created a ten-year Medium- and Long-Term Education Development Plan Outline in 2010 that set 2020 targets of kindergarten enrollment for 95 percent of five-year-olds, 80 percent of four-year-olds, and 70 percent of three-year-olds. Provinces and local governments were called on to increase financing for ECE and develop a series of three-year Action Plans to achieve these national goals. At the time of project appraisal, Yunnan was implementing its second Three-Year ECE Action Plan, covering 2015-2017, which contained ambitious goals and substantial increases in political and financial commitment. The Bank and government's "China 2030" strategy, adopted in 2010, contained a pillar on "expanding opportunities



for all" that included a focus on early childhood education, especially for underserved rural and migrant populations.

The objectives aligned with elements of the Bank's Country Partnership Strategy (CPS, FY13-16) at appraisal, which included a focus on subnational engagement and enhancement of opportunities in rural areas and small towns. However, early childhood education and development were not included in the FY13-16 lending program. Strategic alignment was significantly higher with the current Country Partnership Framework (CPF, FY20-25), which has an objective on strengthening the quality of early learning and skills development programs, a continued focus on interventions at the subnational level, and a CPF indicator on number of kindergartens in Yunnan province that comply with new quality standards.

Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

Improve access to early childhood education provision in the project counties

Rationale

The theory of change for this objective held that construction and renovation of kindergarten classrooms would create more available spaces for three- to six-year-old children, with a special focus on the formation of community-based rural ECE centers that would narrow the rural-urban access gap, contributing to increased access to ECE and an improvement in the GER. Parenting education, along with teacher training and adequate staffing, would further complement and strengthen the intended pathway toward achieving the objective.

The theory of change was intertwined with that of Objective 2 on improving ECE quality, as good-quality ECE triggers and reinforces parent demand for ECE in terms of access and utilization.

Outputs

Fifteen kindergartens containing 210 classrooms were constructed or renovated and equipped under the project, exceeding the target of 170 classrooms.

The Yunnan provincial government rolled out a recruitment drive in the second half of 2020 to place about 33,000 college graduates in ECE teaching positions on the public payroll, bringing 18,000 more teachers on



board than original planned (ICR, p. 26). Project-supported training activities (see Objective 2) oriented these teachers in their new roles.

Rural ECE centers were piloted in five schools in Qiaojia and Weishan counties, providing ECE in 30 remote villages and benefiting 1,983 children. Non-governmental organizations were contracted to help incubate the centers and provide support for teacher training and coaching, site management, and M&E. At project closing, both pilot programs were in their final stages, evaluating and documenting results and finalizing scale-up to 38 schools.

Two university-affiliated research kindergartens were established, as planned. Kunming University opened its special education center in September 2021, enrolling a first cohort of 145 children, of whom 21 were children with special needs. Zhaotong University adopted a public-private partnership approach for its research center, working with an experienced private kindergarten to run daily operations.

Outcomes

The three-year kindergarten GER in project counties increased from 54 percent in 2015 to 88.4 percent in 2021, exceeding the target of 69 percent.

The three-year kindergarten GER in rural areas in project counties increased from 45 percent in 2015 to 84 percent in 2021, exceeding the target of 69 percent.

The three-year kindergarten GER among ethnic minorities in project counties increased from 64 percent in 2015 to 90 percent in 2021, exceeding the target of 69 percent.

There were 19,259 direct project beneficiaries, exceeding the target of 17,291 beneficiaries. Of those, 50.7 percent were female, exceeding the original target of 50 percent and the revised target of 47 percent (the target was revised downward to adjust to the percentage of girls in the total population).

Rating
High

OBJECTIVE 2

Objective

Improve the quality of early childhood education (ECE) provision in the project counties

Rationale

The theory of change for this objective held that creation of university-based research kindergarten and special education centers would improve the analytic and knowledge base for teacher training; provision of additional and relevant pre-service and in-service training for more teachers would increase the percentage of teachers with professional certification; development of an on-line resource bank and platform for ECE teaching and learning would increase teachers' and administrators' access to quality ECE materials and guidance; increasing the number of qualified teachers would improve the student-teacher ratio; and



establishing a provincial ECE quality assurance and sustainable financing framework would support the ongoing development and provision of quality services. Taken together, these intermediate outcomes would support improved quality of ECE provision along a well-conceived results chain: students graduating from university programs were provided with strong knowledge of ECE; demand for teachers was created by aiming for a higher GER and student-teacher ratio target; and heightened institutional standards encouraged ECE to seek a higher-quality workforce to obtain higher ratings.

Outputs

The percentage of rural and private teachers that participated in training under the project reached 99 percent, exceeding the target of 90 percent. According to a monitoring report on training quality, demand assessments helped make training design relevant; training facilitators included an effective combination of experts and practitioners; chat groups and social media were well leveraged to foster a learning community and provide timely feedback; programming was flexible; and coordination and logistics were smooth (ICR, p. 16). A tailored approach was adopted for participants who work with ethnic minority children.

The Yunnan Department of Education approved Comprehensive Kindergarten Quality Standards in August 2017, drawing on standards established by the United Nations Children's Fund, European Union, and Organization for Economic Cooperation and Development.

The three participating universities increased the number of ECE majors and graduates, recruited faculty members with advanced degrees, and implemented a variety of ECE research tasks (including development of a new child development measurement instrument). 43 university faculty with master's or doctoral degrees were newly recruited, more than doubling the target of 20 faculty. The university graduate employment rate in the ECE sector increased from 68 percent in 2015 to 90.8 percent in 2021, essentially meeting the target of 91 percent. 91 kindergartens were using the new child development measurement instruments at project closure, exceeding the target of 88 kindergartens. No baseline was provided.

Outcomes

The percentage of preschool teachers and staff with professional certificates in project counties increased from zero in 2016 to 74.07 percent in 2021, exceeding the target of 62 percent. At the time of project preparation, Yunnan Province had not adopted a classroom observation tool that could be used to assess the extent to which teachers were putting their training and certification into practice in the classroom, but the overall kindergarten quality standard indicator (below) covered performance not only of teachers but a wider range of ECE staff, including caretakers, health professionals, and principals (ICR, p. 16).

331 kindergartens were in compliance with the new kindergarten quality standards at project closure, more than doubling the target of 158 kindergartens.

The student-teacher ratio in project counties declined from 20 in 2015 to 12.6 in 2021, exceeding the target of 14. The student-teacher ratio in rural areas in project counties declined from 24 in 2015 to 13.9 in 2021, exceeding the target of 14.5.



Parental satisfaction with kindergarten quality was 99.46 percent in 2021, exceeding the target of 90 percent. No baseline was provided.

Rating
High

OVERALL EFFICACY

Rationale

The project implemented all planned activities and met or exceeded outcome targets for improved access and quality of ECE in Yunnan province.

Overall Efficacy Rating

High

5. Efficiency

Economic and financial analysis carried out at appraisal estimated an internal rate of return (IRR) of 6.69 - 10.14 percent (in low, middle, and high scenarios, with the discount rate ranging from 2 percent to 8 percent, and a midline IRR of 8.65 percent), based on direct benefits of higher educational attainment for those who attend ECE programs, higher subsequent employment rates and wages, and lower risky behaviors. This was a conservative estimate, as it did not take into consideration additional indirect benefits for parents and communities.

At closure, the ICR's economic analysis estimated an IRR of 11.59 percent (sensitivity analysis varying found a range from 7.39 - 12.74 percent), with a net present value of US\$416.07 million and a cost-benefit ratio of 4.4. Key assumptions included three full years of attendance for each ECE enrollee; a ten-year time horizon of benefits; a 22 percent annual wage premium for children enrolled in ECE compared with those who are not enrolled; three years of additional employment for 13 mothers for every 100 children who attend ECE; and a discount rate of four percent. These assumptions were reasonable and drew from relevant experience and international literature (ICR, Annex 4, pp. 47-49). The sensitivity analysis varied the ECE attendees' wage premium and caregivers' labor force participation rate. The ICR's result is higher than that estimated at appraisal due to project cost savings, exceeded outcome targets, and updated assumptions based on recent ECE literature. The ICR (p. 19) notes that these returns are likely underestimated, as they consider only improvements in ECE access and do not consider the impact of quality improvements.

Implementation was highly efficient. The project was delivered under budget and on schedule. There were minor delays in the first year of implementation with signing of subsidiary agreements for transfer of funds to project counties and universities (ICR, p. 25). The Provincial Project Management Office (PPMO) remained lean by outsourcing many technical and non-routine tasks, leading to project management costs of less than one



percent of total project costs (US\$310,000). PPMO staffing was consistent and effective throughout. Civil works, goods, and consulting services were cost effective, with aggregate purchase values at 81.7 percent, 98.9 percent, and 99.0 percent of their budgeted values, respectively (ICR, p. 19). Key external support groups, including an expert advisory team and teacher professional development monitoring team, were recruited through competitive processes and hired through part-time contracts (rather than as more expensive full-time staff members). Financial management, procurement, safeguards management, and M&E were smooth. COVID-19 pandemic-related disruptions included a delay of two to three months in some civil works activities and teacher training workshops, and some of the latter moved on-line, but activities were resumed by May 2020.

Efficiency Rating

High

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	8.65	100.00 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	11.59	100.00 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

The project was highly relevant, effective, and efficient. As the first Bank-supported ECE project in China, it would allow Yunnan Province to guide other provinces in replicating its experience.

a. Outcome Rating

Highly Satisfactory

7. Risk to Development Outcome

The project's model of introducing innovations through pilots and later scaling up successful programs built sustainability into its design. It strengthened institutional capacity at the provincial level and among key university partners, which should support a continued process of replicating project outcomes in the future. Two province-wide policies -- new institutional quality standards, and Administrative Measures for Preschool Education (strengthening registration and permit issuance for kindergartens, especially private ones) -- will facilitate continued adherence to quality benchmarks achieved under the project. As of 2022, the provincial government has established spending mechanisms (per-student subsidies) that will support kindergarten attendance for students from poor households. Yunnan Normal University has been established as China's



regional ECE knowledge hub for Southeast Asia and South Asia, having successfully organized global learning conferences with the Bank in 2017 and 2019, indicating that research and programming innovation will continue.

8. Assessment of Bank Performance

a. Quality-at-Entry

This was the first World Bank project in the ECE sector in China. In 2014, the Bank and the Yunnan Department of Education produced the research study "Challenges and Opportunities: Early Childhood Education in Yunnan," providing a solid foundation for policy dialogue that led to the project. Project preparation and design drew on lessons learned from prior projects in the sector and experience with ECE in China and other countries, including that children who participate in quality ECE programs tend to have higher overall education attainment; teachers are a key determinant of quality interaction and quality education; university-affiliated laboratory preschools are good models that can inform educational practice and research; empowerment of parents can preserve and enhance gains made in access to and quality of ECE services; and early education and care interventions for children with disabilities is critical for them to survive, learn, and thrive; and management and benchmarking of the quality of ECE services requires a minimum quality standards framework (PAD, pp. 14-15).

Risks were well assessed at appraisal. Moderate risks were identified related to project design, given the multiple entities involved in implementation and multiple planned interventions. Sustainability risk was also rated moderate, given potential challenges in keeping rural ECE centers operating in sparsely populated areas. The Bank team was to work closely with implementing units and with provincial and county governments to mitigate these risks. Sustainability mechanisms were built into project design, including leveraging the demonstration effect of the research kindergartens established at universities, supporting policy development and an enabling environment for quality ECE expansion, and using project activities to test new interventions for scale-up (through non-governmental organizations in rural areas, public-private partnerships, and tailoring of pre-service and in-service training to encourage work with ethnic minority children).

Institutional arrangements were well specified and standardized among project counties and kindergartens. M&E design was thorough and of high quality, with a well-specified theory of change, indicators, and designation of institutional responsibility for data collection, reporting, and analysis (see Section 9a).

Quality-at-Entry Rating

Highly Satisfactory

b. Quality of supervision

The Bank team maintained "open, fluid, and continuous dialogue with the PPMO and project implementation units (PIUs) in project counties" (ICR, p. 30), providing required technical assistance to all



project kindergartens, reviewing training plans and curriculum standards, and engaging an array of relevant stakeholders. Implementation Status and Results Reports were timely, clear, and results-focused. During implementation, the team carried out a set of studies on ECE in Yunnan to support ongoing reform efforts (listed in the ICR, p. 31). Project implementation was effective and efficient despite the impacts of the COVID-19 pandemic and a 6.4-magnitude earthquake that struck the province in 2021. With project support, Yunnan Province played a leadership role in China in supporting parents with home-based activities for young children during pandemic-related school closures (ICR, pp. 25-26).

Quality of Supervision Rating

Highly Satisfactory

Overall Bank Performance Rating

Highly Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The project's theory of change was sound and straightforward, with progress toward achievement of the development objectives measured through a series of output, intermediate outcome, and outcome indicators. The PPMO, part of the Provincial Department of Education, was in charge of overall project M&E; it was to recruit an M&E specialist to oversee the task. The indicators were to be tracked on a regular basis by PIUs set up within each of the seven project counties and three universities. To the extent possible, existing data collection and information systems of the PIUs were to be used. The PPMO was to prepare an overall monitoring report every six months, as well as a mid-term review (MTR) in 2019. A series of focus group discussions, interviews with teachers and parents, and case studies was to be conducted as part of the MTR to summarize experiences accumulated and lessons learned during the first half of implementation. To strengthen PPMO and PIU capacity, the Bank team was to provide technical assistance on an as-needed basis.

b. M&E Implementation

Systematic monitoring and reporting of outputs and outcomes were carried out as planned. The PPMO prepared a comprehensive report for the mid-term review, which took place as scheduled in 2019. A child development tool was developed with project funding, applied annually from 2018 through 2020 to children attending project kindergartens; findings were used to generate a substantial report on the development of project-supported children in 2020 (summarized in Annex 6 of the ICR). A formal impact evaluation was not conducted.

c. M&E Utilization

According to the ICR (p. 28), PIU and PPMO reporting and analysis were used to adjust project activities and priorities throughout implementation, addressing emerging issues before they developed into



problems. Analysis and results were shared with individual kindergartens, and feedback and consultation sessions were organized to enhance service delivery.

M&E Quality Rating

Substantial

10. Other Issues

a. Safeguards

The project was Environmental Assessment category "B" and triggered OP/BP 4.01, Environmental Assessment; OP/BP 4.10, Indigenous Peoples; and OP/BP 4.12, Involuntary Resettlement. An Environmental Management Plan was developed, based on environmental assessments of all sub-projects, and disclosed on December 2, 2015. An extensive Social Assessment was conducted and used toward development of an Ethnic Minority Development Plan (disclosed on February 29, 2016), as about 28 percent of people in project countries were ethnic minorities. A due diligence review of land acquisition and compensation was carried out, confirming that national and Bank regulations had been followed. To cater to possible site changes during implementation, a Resettlement Plan Framework was developed and disclosed on March 7, 2016.

The M&E consultant issued a report on social safeguards compliance every six months. According to the ICR (p. 29), "there were no major issues with safeguards compliance," and ethnic minority culture and values were protected and promoted by the project. Specifically, teachers for the rural ECE centers were recruited locally. Those teachers were able to speak local dialects, incorporate traditional cultures in teaching activities, and help children from ethnic minority groups transition from home to kindergarten. Staff turnover rates were low. A picture book was published in both the Yi and Han languages and used in project schools where the Yi language is spoken.

b. Fiduciary Compliance

At appraisal, fiduciary risks were rated as moderate: the PPMO and most of the PIUs were new to Bank operations and therefore were not familiar with Bank policies and requirements; counterpart funding from local governments was uncertain due to low fiscal capacity; disbursement delays could result from inefficient working or document flows between the PPMO, PIUs, and finance departments. These risks were mitigated through preparation of project financial management and procurement manuals, ongoing workshops and hands-on guidance from the Bank team, the inclusion of counterpart funding in government annual fiscal budgets, the employment of a qualified and experienced procurement agent at the PPMO, and a requirement that each PIU be staffed with a procurement specialist.

According to the ICR (p. 30), there were no significant issues related to financial management or procurement, and both were rated Satisfactory throughout implementation.



c. Unintended impacts (Positive or Negative)

None reported.

d. Other

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Highly Satisfactory	Highly Satisfactory	
Bank Performance	Satisfactory	Highly Satisfactory	This ICR Review rated both Quality at Entry and Supervision as Highly Satisfactory because there were shortcomings in neither identification, preparation, or appraisal nor in the proactive identification of opportunities and resolution of threats. The aggregation of these sub-ratings is consistent with a Highly Satisfactory rating for overall Bank Performance.
Quality of M&E	Substantial	Substantial	
Quality of ICR	---	High	

12. Lessons

The ICR (pp. 32-33) includes several well developed lessons, including:

- **Keeping institutional arrangements simple, in a complex project, can help implementation.** In this case, even though there were multiple Project Implementation Units (seven at the county level, and three at the university level), their standardized structure and coordination by an experienced Provincial Project Management Office facilitated smooth operations.
- **The participation and expertise of relevant universities can build capacity to support early childhood education outcomes.** In this case, the inclusion of three key universities in the ECE field helped maintain and increase the supply of ECE teachers, establish model kindergartens that served as exemplars and laboratories for innovation, and develop important analytical and diagnostic tools.
- **Community engagement is central to development of effective and inclusive ECE in rural settings.** In this case, staffing of rural ECE centers placed priority on village-based



candidates with strong ties to the community, increasing teacher retention and supporting engagement with local communities and parents. Non-governmental organizations provided systematic professional development programs to ensure adequate staff competencies.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR was clear, candid, concise, and results-oriented. It presented high-quality evidence with careful sourcing of data. It contained useful annexes on the child development measurement tool developed under the project, and on the project's poverty impact. The analysis effectively interrogated the results chain, with the project's interventions well explained and logically linked to observed outcomes. Its lessons were grounded in the project's specific experience and were linked to the findings and ratings presented in the main report. The ICR was internally consistent and followed established guidelines.

a. Quality of ICR Rating

High