

IFAD Projects: Results and Impact on Poverty Reduction in Rural China



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1 Introduction



Introduction

-  -- China is the biggest developing country with the most number of poverty-stricken people in the world.
-  -- China's absolute poverty had been decreased from 250 million in 1978 to 26.88 million in 2010 with the poverty incidence from 30.7% to 2.8%.
-  -- IFAD has made a remarkable contribution to China's rural poverty reduction. During 1981 – 2006 (25 years), IFAD provided 488.51 million USD of long term favorable loans to 19 project areas in China, covering more than 130 counties (cities) of 24 provinces (cities).

-  -- In September 2006, on the occasion of starting a new round of cooperation between China and IFAD, a consultancy group was dispatched jointly by Chinese Ministry of Finance (MOF) and IFAD to undertake a comprehensive evaluation of IFAD project results and impact in rural China for the past 25 years.
-  -- Together with Prof. Li Zhou, Associate Prof. Sun Ruomei, both from the Chinese Academy of Social Sciences, I visited many IFAD project areas in Jilin, Anhui, Shaanxi and Qinghai provinces.



- In this research,
-  -- We analyzed the economic, social and ecological benefits of IFAD projects in China during the past two-and-a-half decades, by conducting an investigation of field visits to the above 4 provinces and made a comprehensive assessment of 12 IFAD projects in 13 provinces in China.

-  -- We conducted a systematic examination of IFAD project impact on China's rural poverty reduction in five respects:
 - food security; -- women and the vulnerable groups;
 - government policies on poverty reduction;
 - state policies on rural finance;
 - institutional and capacity building of the Chinese government and the community.
-  -- We came to important conclusions based on the findings of this research and proposed policy recommendations accordingly.



2 Data and Methodologies

Data & Methodologies

Data:

The data used in this research are taken from the official reports provided by IFAD as well as project management offices (PMOs) in relevant provinces or regions in China.

Methodologies:

The methodologies adopted:

- *Document review*: 12 IFAD projects in 13 provinces
- *Field investigations*: 4 provinces
- *Project stakeholder enquires*: over 150 people
- *Quantitative Analyses*:

Regression models, paired sample T-test (using the SPSS software), comparison (before vs. after and with vs. without IFAD projects).



3 IFAD Project Benefits

3 IFAD Project Benefits

1 Economic Benefit

2 Social Benefit

3 Ecological Benefit

3.1 Economic Benefit



 IFAD projects have made great economic achievements. From the economic results of 12 IFAD projects, 1,527,733 households with 6,334,761 population have benefited in the project areas, the farmers' per capita net income has been raised from 794.88 *yuan* before project to 1,752.63 *yuan* after project, increasing by 120.49%. In Southwest Anhui Integrated Agricultural Development Project area, for instance, the farmers' per capita net income has been increased from 521 *yuan* in 1995 (baseline) to 1,558 *yuan* in 2003, increasing by 199% (see Table 1).

Table 1. Changes of farmers' net income for selected IFAD projects in China (comparison of before and after project).

	Number of households	Project area population	Net income before project (RMB)	Net income after project (RMB)	Value added (RMB)	Increase (%)
<i>Total</i>	1,527,733	6,334,761	794.88	1,752.63	957.75	120.49
1. Shaanxi 517_CN	244,730	938,920	765	1,375	610	79.7
2. Hubei 517_CN	181,460	723,936	777	1,042	265	34.1
3. Chongqing 424_CN	93,340	363,429	709	1,291	582	82.1
4. Haidong in Qinghai 424_CN	57,345	262,300	315	691	376	119.37
5. Hainan in Qinghai 364_CN	56,000	325,000	589	907	318	53.99
6. Southwest Anhui 451_CN	123,410	514,319	521	1,558	1,037	199
7. Beicheng in Jilin 300_CN	378,252	1,588,857	748	1,184	436	58.2
8. Shanxi 281_CN	111,200	448,000	290	1,800	1,510	520.69
9. Northern Pasture in Neimeng, Hei Longjiang, Hebei 62_CN	37,366	177,000	103	403	300	291.26
10. Hebei 107_CN	35,200	175,000	205	373	168	81.95
11. Guangdong 195_CN	32,930	130,000	999	2,335	1,336	133.73
12. Yantai in Shandong 254_CN	176,500	688,000	338	1,062	724	214.20

Sources: Based on data provided by the project completion reports and monitoring and evaluation reports of the relevant provinces.

 To find out the statistical robustness of the farmers' net income increases before and after the afore-mentioned 12 IFAD projects as against the total investment, we adopted a single variable linear regression model to test the relationship between the incremental income of farmers and the total project investment. The result indicates that:

IFAD total project input did have a significant effect on the increase in farmers' net income in the project areas (Table 4: $\beta = 0.624$, $t = 2.53$, $p = 0.030$ < 0.05).

Table 4. Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta 1			Tolerance	VIF
1 (Constant)	-1E+007	1E+008		-.087	0.933		
Total project input (yuan)	1.491	.589	.624	2.530	0.030	1.000	1.000

Dependent Variable: increment of farmers' net income in the project areas (yuan)


-  **With vs. without project comparison:**
 - of farmers' net income between project areas and non-project areas of 5 projects in Jilin, Hebei, Guangdong, Shandong and Northern Pasture, we found that:
 - (1) The increasing rate of per capita farmers' net income in project areas (123.86%) is as high as 2.59 times of that in non-project areas (47.83%).
 - (2) Per capita farmers' net income in project areas increased by 76.03% (=123.86 – 47.83) due to IFAD projects regardless of non-project factors on economic growth and social progress in non-project areas (see Table 2).

Table 2. Comparison of farmers' net income of selected IFAD projects in China (comparison of project and non-project areas).

	Changes in farmers' net income per capita in <u>project areas</u>				Changes in farmers' net income per capita in <u>non-project areas</u>			
	Before project (RMB)	After project (RMB)	Added (RMB)	Increase (%)	Before project (RMB)	After project (RMB)	Added (RMB)	Increase (%)
Total	299.13	669.63	370.5	123.86	2,760	4,080	1,320	47.83
1. Beicheng in Jilin 300_CN	748	1,184	436	58.2	1,080	1,350	270	25.00
2. Northern Pasture in Neimeng, Hei Longjiang, Hebei 62_CN	103	403	300	291.26	104	325	221	212.50
3. Hebei 107_CN	205	373	168	81.95	281	367	86	30.60
4. Guangdong 195_CN	999	2,335	1,336	133.73	970	1,399	429	44.23
5. Yantai in Shandong 254_CN	338	1,062	724	214.20	325	639	314	96.62

Source: Based on data provided by IFAD in China and IFAD project completion reports of provinces concerned.

 **To verify the soundness of the above-mentioned comparison, we did a paired sample T-test.**

Table 5 shows a difference of $155.868 - 81.790 = 74.084$ between T₁s mean and T₂s. This indicates that the average per capita net income in project areas is 74.084% higher than that in non-project areas. Table 7 is the hypothesis test of the two groups: H₀: the means of T₁ and T₂ are the same; H₁: the means of T₁ and T₂ are different. The test shows that the significance of T = Sig. (2-tailed) = 0.007 < 0.05; therefore, H₀ should be rejected. Thus, a significant difference exists between the net incomes in project areas and those of non-project areas.

Verification is provided in Table 6. Because the correlation = 0.95 > 0 and Sig. = 0.013 < 0.05, the two groups of data have a close relationship with each other and the coefficient is significant.

Table 5. Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	T ₁	155.868	5	96.471	43.143
	T ₂	81.790	5	78.360	35.043

Table 6. Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	T ₁ & T ₂	5	.950	.013

Table 7. Paired Samples Test

Pair	T ₁ - T ₂	Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1		74.078	32.938	14.730	33.179	114.976	5.029	4	.007

From the above analysis, it can be concluded that the paired sample T-test on net income in both project areas and non-project areas is reasonable, which further supports our previous statement that the difference between farmers' net incomes in project areas and those in non-project areas *is* significant.

3.2 Social Benefit

IFAD projects have achieved good social benefit:

 *(1) The infrastructure has been greatly improved in the project areas.*

- -- **village roads:** Anhui 451CN built 68km new roads, renovated 252 existing roads, making every village accessible.
- -- **safe drinking water:** Haidong 424CN built 87.45 km of water diversion pipes and dug 188 wells to connect running water to the houses benefiting 6,638 people and 11,750 animals.
- -- **better living:** In the Northeast Sichuan/Chongqing project areas, 60% of project villages have installed telephones, 79% of project villages now have access to electricity compared with 42% before the project, and 36% of all households have TV sets.

 ***(2) Employment opportunities have been greatly increased in the project areas.***

-- With the development of rural enterprises, Nanpi county, part of the Hebei agricultural development project, offered jobs to 15,300 rural surplus laborers, 11,000 of whom were women.

-- Guangdong freshwater fish-farming project constructed 2,206 hectares of fish ponds, offering many jobs for the poor households in the project areas. There are 3,296 specialized households managing fish ponds, providing employment for 6,552 farmers.

-- The Hubei rural credit project has created 99,300 jobs, benefiting 287,000 farmers.

(3) The agro-technological extension system has been strengthened.


IFAD projects have reinforced the means and functionality of agricultural technical services and completed agrotechnical extension systems in the project areas.

Southwest Anhui 451CN Project built and renovated 35 agrotechnical and vet extension stations in the townships, and provided equipment for five county level centers. Through extensive training by agricultural technicians, every household has grasped one or two practical techniques, promoting the transfer of technological achievements into productive forces.

 ***(4) The human capital of farmers has been enhanced.***

IFAD projects has greatly improved the capacity for development of the farmers in the project areas. As more and more people have become prosperous through income-generating activities based on the rural industries initiated by IFAD projects, their awareness of development and prosperity has been strengthened, their enthusiasm for poverty alleviation and development has been inspired and their confidence to change the backwardness of the poor project areas has been reinforced.

3.3 Ecological Benefit

-  *IFAD projects have increased the forest coverage in the project areas and improved the ecological environment.*

Shanxi 281CN has increased the project area's ability to counter natural calamities through land development. The project has turned 5,533 ha of upland into paddy fields and 13,800 ha of land into high-yielding fields through the improvement of 19,300 ha of low-yielding farmland; improved 12,600 ha of grassland to prevent soil erosion and effectively balance the development of livestock and pasture. The 5 counties have improved 3,133 ha of farmland and 2,267 ha of forested land through land improvement, which has effectively improved the ecological environment.



4 IFAD Project Impact on China's Rural Poverty

4 IFAD Project Impact on China's Rural Poverty

- 1 Household food security
- 2 Women & the vulnerable groups
- 3 China's poverty alleviation policies
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- 4 China's rural financial policy
- 5 Institutional & capacity building

4.1 Household food security



 IFAD projects brought great increases in grain output, resulting in self-reliance in food supplies and even some surpluses. M & E statistics of Shaanxi, Hubei, Chongqing, Qinghai, Anhui, Jilin and Shanxi Projects show that grain availability in the project areas has been increased from 235.94 kg per capita before the project to 388.81 kg after the project: i.e. an increase of 152.87 kg or 64.79%. During the 5-year project implementation, Haidong 424_CN grain production increased sharply, and the per capita grain availability rose from 140 to 270 kg, solving the farmers' fundamental problem of feeding livestock (see Table 8).

Table 8. Changes of Average Grain Production in Project Areas
(A Comparison of Before vs. After Project)

	Food per capita before project (kg)	Food per capita after project (kg)	Amount added (kg)	Increase rate (%)
Total	235.94	388.81	152.87	64.79
1. Shaanxi project 517_CN	230.92	303.5	72.58	31.43
2. Hubei project 517_CN	278	353	75.00	26.98
3. Chongqing 424_CN	369	448	79.00	21.41
4. Haidong project 424_CN	140	270	130.00	92.86
5. Hainan project 364_CN	130	256	126.00	96.92
6. Southwest Anhui project 451_CN	135	281	146.00	108.15
7. Jilin project 300_CN	233	581	348.00	149.36
8. Shanxi project 281_CN	371.6	618	246.40	66.31


Sources: calculated based on data from project completion reports and M & E reports.

 Similarly, the relationship between project input in all provinces and grain output in the project areas has been analyzed with a regression model by SPSS 13.0. Results show that:

Total input under the IFAD project had no significant influence on grain output increase (see Table 9: $\beta_1 = 0.386$, $t = 1.025$, $p = 0.345 > 0.05$).




This may be because the majority of IFAD loans (over 70%) are used to generate revenue from non-farm activities for poor households and less than 30% is used as seasonal credit for agriculture production. In other words, IFAD project investment has had far more impact on farmers' income than on grain production.

4.2 Women and vulnerable groups

 IFAD projects have paid special attention to poverty reduction and development of women and the vulnerable groups in the project areas. Through years of project implementation, IFAD projects have taken effect on:

- *(1). Changed the living and business conditions of women beneficiaries.*
- *(2). Improved women's development ability.*

4.3 China's poverty alleviation policies

-  *(1) Introduced a mechanism for targeting, classification and escalation of poor populations.*
-  *(2) Given priority to monitoring and evaluation (M&E) of project efficiency and beneficiaries.*
-  *(3) Improved the flexibility of project readjustment.*

4.4 China's rural financial policy

- ◆ (1) *Cultivation of rural financial institutions by providing low-interest loans.*
- ◆ (2) *Setting up mechanisms for rural financial institutions to participate in poverty reduction.*

4.5 Institutional & capacity building

IFAD projects have exerted great influences on government organizations, project management offices (PMOs) and rural community-based organizations and greatly promoted the institutional and capacity building of these agencies.

- (1) Strengthening the awareness of cooperation between government organizations.*
- (2) Increasing the management ability and efficiency of PMOs.*
- (3) Cultivating management personnel for international projects.*
- (4) Changing the philosophy of project officers.*
- (5) Promoting the growth of rural community-based organizations and strengthening farmers' awareness of self-governance.*



5 Conclusions & Policy Implications

5.1 Conclusions

 *(1) The results of IFAD projects in China are positive.*

The analyses show that IFAD projects have achieved obvious economic, social and ecological benefits, improving farmers' production and living conditions in projects areas with increased grain yield and income. Significant contributions have been made to solving the basic problems of poverty and hunger of the poverty stricken people, strengthening rural infrastructure and agro-technical services, and improving the ecological and community environment.


 ***(2) The impact of IFAD projects on poverty reduction in rural China is far-reaching.***

Direct impacts include the ideas of designing poverty alleviation projects to include scientific and beneficiary participation in decision making, targeting and paying sufficient attention to women and vulnerable groups. The mechanism of classifying and graduating poor households, capacity building, and providing tools for project management such as the M & E systems are also critical components. Indirect impact is often more influential, especially IFAD's impact on China's rural financial policies, poverty alleviation policies and the awareness of cooperation and coordination among government agencies.

 ***(3) The role of international projects for poverty reduction in China is significant.***

The participation in China's poverty reduction from the international community, including IFAD, has played an important and irreplaceable role in China's poverty alleviation process over the last two-and-a-half decades. (1) International projects play an obvious catalytic role in drawing attention and counterpart funding from the government and from all fields in society. (2) Advanced ideas of poverty alleviation and tools and methods of modern project management have been brought in, which will exert a far-reaching positive influence in the long term. (3) Valuable experience has been accumulated from trials on the models of poverty alleviation and micro-credit delivery to poor farmers, which will play a leading and demonstrative role in China's poverty alleviation development in the years to come.

5.2 Policy Implications

 *(1) Pay attention to the role of international poverty reduction projects and continue to cooperate with IFAD.*

Practices have proved that IFAD projects have brought about not only excellent results in the project areas, but also new ideology, new tools and methods for poverty reduction project design and management. The Chinese government should, therefore, seek further cooperation with international agencies such as IFAD and bilateral government or non-governmental organizations (NGOs) to make a greater contribution to poverty reduction in rural China in the new era.

(2) *Exploit the demonstration effects of IFAD projects.*

The far-reaching impact of IFAD projects in China in the fields of project design for food security, concern for women and vulnerable groups, the attention paid to capacity building, and the influences on China's poverty reduction and rural financial policies have become a valuable experience for poverty reduction in rural China. The Chinese government should apply these ideas, tools and methods to other rural areas of China, to increase project management efficiency for Chinese poverty reduction projects.

 ***(3) Facilitate the reform of the rural financial system in China.***

The micro-credit model of IFAD projects has provided valuable references for China's ongoing rural financial reform. The Chinese government should speed up the process of rural financial reform based on these experiences in an effort to stimulate the rural financial market and provide financial institutional lessons to guarantee poverty reduction in rural China.



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The end.

Thank you.

Comments are appreciated!

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