



1. Project Data:		Date Posted : 02/13/2004	
PROJ ID: P003638		Appraisal	Actual
Project Name: Seeds Sector Commer.	Project Costs (US\$M)	185.5	152.4
Country: China	Loan/Credit (US\$M)	100.0	76.0
Sector(s): Board: RDV - Crops (94%), Central government administration (3%), Law and justice (3%)	Cofinancing (US\$M)		
L/C Number: C2886; L4044			
	Board Approval (FY)		96
Partners involved :	Closing Date	06/30/2002	06/30/2003
Prepared by :	Reviewed by :	Group Manager :	Group:
Robert C. Varley	Kris Hallberg	Alain A. Barbu	OEDST

2. Project Objectives and Components

a. Objectives
The project objective was to assist Government develop a viable commercial seed sector, which would produce high quality seeds in sufficient quantity and variety to satisfy farmers' needs, and operate through efficient, self -sustained commercial enterprises.

b. Components
The appraised and actual project costs of \$ 185.5 million and \$152.4 million respectively, comprised:

- i. **Policy and Regulatory Framework** (3.9% / 3.4%) - to enhance competitiveness and encourage international cooperation e.g. strengthening administration, setting standards and protecting intellectual property .
- ii. **Commercialization of Selected Seed Companies** (95.8% / 96.3%) - modernization of technically adept and competitive seed companies, through a) investments in storage, processing, licensing, management, marketing, seed stock and machinery; and b) capacity building and institutional development .
- iii. **Institutional Strengthening** (0.3% / 0.3%) - of public sector agencies providing service and technical support to the seed sector.

c. Comments on Project Cost, Financing and Dates
The project covered 14 provinces and 31 companies, but at mid-term review in 1999 Jiangxi dropped out and Anhui and Hainan provinces joined, increasing the participation to 15 provinces and 36 companies. There were three cancellations between 2000 and 2003, totalling \$17.7 million and an undisbursed balance of \$4.5 million. Lower than expected costs were attributed to using domestic funding sources, supplementary bilateral support and overestimation of contingencies at appraisal . The project was extended by one year .

3. Achievement of Relevant Objectives:

- The broad objective of assisting government commercialize the seed sector was achieved, but the Implementation Completion Report (ICR) evidence do not demonstrate convincingly the extent the specific outcomes. This could have been accomplished by contrasting enterprise /provincial indicators of performance with the Staff Appraisal Report (SAR) which had included individual measures of enterprise viability, seed production, efficiency, profitability, availability of high quality seeds as well as overall market -level efficiency (e.g. economies of scale as demonstrated by increased inter -provincial/national trade.) Seed quality increased and production targets were "substantially achieved", seed prices are now set by the market, and seeds are marketed under brand names. Surveys showed that in some locations yields and production using improved seeds were 5-15% higher.
- Profitability and autonomy for particular provincial enterprises was accomplished, but the aggregate profitability cannot be deduced from limited reporting of data, scanty coverage of the assumptions underlying the ERR /FRR calculations, and selective use of indicators. Although reform into self-accounting autonomous legal entities was a loan condition, some enterprises have only been reformed nominally - "about half of the participating companies claimed to have formal company business plans with forecast profit and loss accounts ." Overall national seed sector performance has been good, but the results are dominated by China's own \$ 390 million program included in the Ninth Five Year Plan (NFYP.)

The ICR analysis is by inputs and outputs of the 3 components, which demonstrated the intermediate outcomes for market reform and increased efficiency were largely achieved :

- **Policy and Regulatory Framework** - production and seed certification/quality control functions were separated from production and trade, with a new seed law providing the basis for the policy, regulatory and administrative changes. Protection of intellectual property was introduced and local protection removed
- **Commercialization of Selected Seed Companies** - liberalization of the business environment was realized but government control and/or ownership of limited liability companies is still widespread . None of the project companies receive government investment and operating subsidies any more, and 30 of 34 have been reconstituted as autonomously managed limited liability joint-stock companies. Financial autonomy is high for most of these and "in general, all the 34 companies taking part in the project are in a financially stronger position than pre-project." WTO entry led to fierce competition and depressed seed price, affecting profitability . Investment in manufacturing equipment, production bases, seed stock and capacity building was close to that planned.
- **Institutional Strengthening** - Government seed stations reduced testing times, increased research capacity in some cases, widened their international contacts and now obtain fee-based income for certification and testing services.

The economic rate of return (ERR) was calculated for each province and the project as a whole, assuming 25% of incremental value from improved varieties could be attributed to the seeds themselves . By province the ERRs ranged from 24% to 49%, and was 34% for the project as a whole, slightly below the SAR estimate of 42%. Only 4 of 30 project enterprises had financial rates of return (FRR) below 12% and the 27% project FRR was high, albeit below the appraisal estimate.

4. Significant Outcomes/Impacts:

- i. There was a national impact through the Government's domestic program for non -project provinces/companies. The NFYP Seed Program borrowed heavily from the project design .
- ii. Advanced technology, equipment and training substantially improved the range of varieties for some producers . Shanxi North Seed Company breeds 30 new corn , 12 watermelon 4 melon varieties, and Shanxi Provincial Seed Company 25 new vegetable varieties.
- iii. Changes in evaluation methods abolished replicated tests and shortened evaluation times .
- iv. In 2003 the Agriculture and Rural Development Department proposed the project for inclusion in the World Bank Agricultural Investment Source Book, as an Innovative Activity Profile .

5. Significant Shortcomings (including non-compliance with safeguard policies):

- i. Despite the lessons learned from two previous Bank-funded seeds projects the project design was ambitious for the scale of implementation, while project management authority at the provincial level was too limited .
- ii. China did not join the International Seed Testing Association as anticipated and this could be an impediment to developing seed export markets.
- iii. International competitive bidding (ICB) slowed project implementation and the centralized project management required parallel procurement across as many as 64 contracts. The Bank provided inadequate support for procurement procedures,policies and contract management during the early years of the project .. Administration was further complicated by the particular financial management practices in each province .
- iv. Participants in the NFYP programs obtained better loan terms than project participants .
- v. Few of the comprehensive monitoring indicators defined at appraisal appear have been maintained and /or analyzed - e.g. production of new varieties by enterprise, level of state subsidies to provincial seed producers, farm incomes and achievement of project-specific production/sales targets.
- vi. The design did not provide sufficient support to strengthen research and development of new varieties .

6. Ratings :	ICR	OED Review	Reason for Disagreement /Comments
Outcome :	Satisfactory	Moderately Satisfactory	Not all the objectives were fully achieved and there were significant shortcomings .
Institutional Dev .:	Substantial	Substantial	
Sustainability :	Highly Likely	Likely	Five enterprises remain state enterprises, or subsidiaries. Financial health may also be adversely affected by competition, WTO rules and differing provincial priorities.
Bank Performance :	Satisfactory	Satisfactory	
Borrower Perf .:	Satisfactory	Satisfactory	The central government maintained strong commitment and support for regulatory reform .
Quality of ICR :		Satisfactory	

NOTE: ICR rating values flagged with '*' don't comply with OP/BP 13.55, but are listed for completeness.

7. Lessons of Broad Applicability:

Even overambitious and managerial complex projects, implemented in decentralized provinces, on a large scale can expect to achieve a large degree of success in China, due to the strong Government commitment and administrative capacity.

8. Assessment Recommended? Yes No

9. Comments on Quality of ICR:

Satisfactory , assuming that the limited analysis was due to a failure to keep the SAR monitoring indicators . up to date.