B A S I S

Broadening Access and Strengthening Input Market Systems

Institutional Innovations to Improve the Viability of Equity Sharing:

Review of Literature and Conceptual Framework for BASIS CRSP Research

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September 2003

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This output was made possible in part through support provided by the US Agency for International Development (USAID), under the terms of Grant No. LAG-A-00-96-90016-00, and by funding support from the BASIS Collaborative Research Support Program and its management entity, the Department of Agricultural and Applied Economics, University of Wisconsin-Madison, USA. All views, interpretations, recommendations, and conclusions expressed in this paper are those of the author(s) and not necessarily those of the supporting or cooperating organizations.

Contents

SUBSET OF LAND REFORM

Central Asia and Southern Africa are undergoing political and economic transition, the former from state and collective farm ownership to private groups and individuals, and the latter to redress the apartheid and colonial heritage of a racially biased and unequal landownership. Countries in these regions share a common problem: poor people in rural areas are unable to make productive use of their land resources. The problem is most acute where it has not been feasible to privatize land, water, infrastructure or movable assets to individual owners. Many beneficiaries of land reform in these regions find themselves co-owning resources, often in large and diverse groups. Collective or group ownership and management of land and water resources and fixed capital improvements is emerging as a prevalent model in both transitions.

One goal of this research project is to monitor the overall rate of farm privatization and redistribution (including individual and group ownership) in the Kyrgyz Republic and South Africa. Individual ownership of land and fixed capital is an important policy thrust in both transitions, but this research activity focuses on group ownership for two reasons. First, individual ownership is not a feasible land reform option in situations of lumpy resources and significant economies of scale in accessing land, markets or technology. Second, many group models have failed. The main objectives of the research are therefore to better understand those failures, to identify solutions suggested by the New Institutional Economics and the recent proliferation of "new generation" cooperatives in the US, and to test these solutions or "best practices" in order to provide policy makers with convincing recommendations.

IMPORTANCE OF GROUP MODELS IN COUNTRY SETTINGS

Land reform in South Africa has fallen far short of the goals set by the first democratically elected government in 1994 (Deininger *et al* 1999:12). In the province of KwaZulu-Natal where farmland transactions have been monitored since 1997, less than 0.5% of the commercial farmland owned by whites has transferred to historically disadvantaged owners each year, despite the presence of an active land market and the availability of government grants to purchase land on a willing buyer-willing seller basis. The slow pace of land reform has been attributed to two fundamental obstacles. First, it is difficult to partition large commercial farms into smaller, more affordable units owing to legal constraints and the high cost of surveying, transferring and registering sub-divisions (Graham 2000:19; Simms 1997). Second, prospective farmers lack capital and are unable to finance land with mortgage loans from commercial banks due to cash flow problems caused by high nominal interest rates and relatively low returns to land (Nieuwoudt and Vink 1995).

Faced with these problems, most of the disadvantaged people who have managed to acquire farmland have done so by pooling their meager resources and purchasing farms collectively, a trend that is likely to continue even if the inflation rate declines and legislation restricting the sub-division of commercial firms is repealed. During 1997-2000, disadvantaged owners acquired 94,160 hectares of the commercial farmland in KwaZulu-Natal. Of this amount, 12.9% was acquired through private non-market transfers (mainly donations and bequests), 35.3% was redistributed through government-assisted (SLAG) purchases, and 51.8% was redistributed through private land market transactions (cash and mortgage loans). Without exception, government assisted transactions (33,263 ha) have involved the establishment of communal property associations or community land trusts involving multiple owners.

Corporate entities also accounted for 35% (17,181 ha) of the farmland purchased privately by previously disadvantaged people. More than half of the farmland redistributed in KwaZulu-Natal is therefore co-owned (Lyne and Darroch 2001).

During the Soviet era, almost all agricultural assets in Kyrgyzstan were state or quasi-state property. Rapid privatization of state assets in Kyrgyzstan's agricultural sector since 1992 has resulted in the creation of a large group of new agricultural enterprises whose common characteristic is shared ownership by groups of member-owners. Three broad classes of these newly privatized entities have emerged from privatization: agricultural production enterprises, agricultural service enterprises,[1] and water user associations. Seventy percent of arable land, almost all agricultural machinery, and almost all agricultural services (transport, chemicals, food processing) are owned and managed by privatization beneficiaries who have become shareholders in the new enterprises. Although Kyrgyzstan has a fast-growing sector of small, independent farms that have broken off from the collectives, the small farmers remain dependent on service entities operated by shareholders, and most are members of a service cooperative or water-user association. Privatization constrained by indivisible assets or costly asset restructuring is thus forcing the issue of creating corporate forms capable of managing shared assets.

In 1999, The BASIS Collaborative Research Support Program helped support the implementation of the First Performance Survey of 468 Agricultural Enterprises by the Center for Land and Agrarian Reform. In November 2001, CASE/Kyrgyzstan[2] undertook the Second Performance Survey of 463 agricultural enterprises including 168 individual farms, 233 peasant farms (group farming units), 43 collective farms, and 19 state farms. While these data suggest the persistence of state farms, collective farms, and peasant farming enterprises, they also reveal considerable fluidity in Kyrgyzstan's agrarian structure—only 345 enterprises in the 1999 survey could be relocated in 2001 suggesting a large number of enterprises (123) that have either abandoned farming, or restructured into new individual or group enterprises.

Dismal Performance of Farm Production Cooperatives and Collectives

Benefits from agricultural production cooperatives (APCs) theoretically derive from their ability to facilitate the utilization of scale economies, promote equity, increase workers' incentives, enable technology adoption, and bring forth a higher level of public good provision (Deininger 1993). Review of these arguments according to Deininger reveals that there are no significant economies held exclusively by production cooperatives, and communal production introduces severe disincentive effects that tend to undermine the viability of the cooperative enterprise. Furthermore, whether agricultural production cooperatives have a comparative advantage in promoting technical innovations, or providing public goods, lacks both theoretical foundation and empirical evidence. On most counts, the cooperative will be less efficient than the large scale mechanized farm or comparable profit-

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[1] While agriculture machinery has mostly been nominally privatized to workers of the former-state farms, in practice the management remains with either the successor collective farms, or a government agency, AilTechService, which operates as a leasing company through the local government administration. This agency also maintains a monopoly on the import of new equipment.

[2] Center for Social and Economic Research, Bishkek, Kyrgyzstan.

maximizing firm. "These predictions are reinforced by empirical evidence showing that cooperative forms of agricultural production exceeding the size of a family farm are virtually absent in industrialized countries and that the experience with formation of production cooperatives in seven developing countries was dismal." Moreover:

> Reversal of collectivization facilitated gains in production and efficiency in a number of instances. Maximum productivity gains from such decollectivization would be expected if (i) competitive markets for inputs, outputs, and credit exist; (ii) the macroeconomic environment does not discriminate against agriculture; (iii) technology for the new units is readily available; (iv) farms are small enough to be able to rely predominantly on family labor; and (v) property rights are sufficiently secure to provide an incentive for investment. The experience of China and Vietnam illustrates that even if not all of these conditions were met initially and land endowments were very low, decollectivization led to considerable one-time productivity gains. In both cases a mix of cooperative and private sector arrangements to facilitate marketing, the utilization of existing farm machinery, and the establishment of infrastructure, made significant contributions to this success. (Deininger 1993 p. ix)

Examples abound of initial successes and then failure of cooperative farming experiments, disabled from without by poor external environments or lack of political support, or paralyzed from within by internal conflict and lack of individual incentives (see box A).[3] Collectivization in Columbia according to De Haan and Werter (1985) created a state of indebtedness, poor economic results, and poorly maintained infrastructure on collective farms stemming from lack of members' ability to manage a collective enterprise, free rider problems, lack of credit, technology choice inconsistent with beneficiary interests and skills, and imposed technical innovations that left beneficiaries uncommitted.[4] (See also Castellanos and Alvarez 1996 for Cuba).[5] In Bolivia, Chile and Venezuela, cooperatives failed to capitalize on the emergence of strong peasant associations, while in Peru, cooperatization was promoted without widespread peasant support (Eckstein and Carroll 1974).

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[3] Critics of agrarian reform often point to the large membership declines as evidence that redistributing land to group enterprises is failing to redress problems of landlessness or change the structure of economic relationships in the countryside. However, as Barham and Childress (1992) have argued, major membership decline in the early years of enterprise life may be more accurately described as a resource adjustment to membership oversubscription in an institutional environment where land and credit access are constrained and are not easily mobile.

[4] According to Lopez (n.d.), eighty percent of all rural cooperatives formed in Colombia tended to dissolve within the first 18 months of operation, and many successful urban cooperatives, especially those connected with the financial sector, have used the philosophy and legislation of the cooperative movement as a cover for capitalist interests.

[5] Beginning in 1993, large state farms were converted to Basic Units of Cooperative Production (UBCPs) to overcome problems of inefficient use of productive inputs and capital investments that plagued the state extensive growth model. Using first-year performance data, 9% of the 1,426 UBPCs in operation increased production, 50% had problems resolvable within a year's time, and 41% exhibited problems without immediate solution. This discouraging performance was attributed to lack of entreprenurial leadership, workers and housing; inadequate workplace infrastructure; and UBPCs lack of real autonomy from the sugar agro-industrial complex.

Box A: Country Examples of Cooperative Failures

Cambodia **Frings 1993**	During the 1980s, the Government of the People's Republic of Kampuchea struggled to rebuild, with very limited resources, a country in ruins after 10 years of civil war, foreign invasions, and experiments in ultra-collectivization. In 1979, the new leaders faced the urgent task of restoring production in the wake of Vietnamese invasion. Production Solidarity Groups (PSGs), 20-25 families in size, were established to make limited resources available to a large number of families who lacked labor, and had no cattle, buffaloes, agricultural implements, seed, or dwellings. By 1989, government was acknowledging that the collective system of land ownership had failed and was meeting with popular opposition. A law amending the Constitution adopted on 11 February 1989 stipulated that citizens were to have full right to manage land and have the right to inherit land granted by the state for the purpose of living on it and using it. These reforms proved very popular. In places where the land was still farmed in common in 1989, it was soon distributed to peasant families. What little collective work remained in 1989 rapidly collapsed. However ineffective the PSGs became, in the first years they succeeded in keeping people in the countryside and in helping vulnerable populations (widows, elderly, disabled and poor farmers) restart lives and agricultural production. After the PSG framework was abandoned in 1989, inequalities became large, abuses more frequent, and the disadvantaged people were left without anything to replace the social security provided by the PSG.
Dominican Republic **Meyer 1989: 1257-58**	The assassination of Trujillo in 1961 provided the impetus for agrarian reform. The Trujillo lands were confiscated by the state and the Instituto Agrario Dominicano (IAD) was established to administer the reform program. In addition to land redistribution, IAD was made responsible for irrigation projects, credit delivery, agricultural services and cooperatives. Further changes were implemented in 1972, in particular, the reallocation of productive rice lands to land reform beneficiaries who were to farm the land collectively under IAD's supervision. Collectives varied in size from 60-80 members. Beneficiaries soon voiced major complaints—lack of relationship between work and payment received; excessive control by the IAD administrator; and inability of the collective to absorb family labor. Although workers were supposed to be paid according to days worked, reluctance of members to accuse friends of shirking on responsibilities usually meant profits were divided equally. The amount of effort put into each task or activity was even harder to police. Attempts to improve the incentive problem eventually led to the division of many collectives into smaller farms.
Grenada **Benoit 1991**	Establishment of the National Cooperative Development Agency (NACDA) in 1980 represented a policy shift toward cooperatives to increase production and reduce unemployment among the landless and rural poor. Major initiatives included setting up a land reform commission to identify idle lands and unemployed youth; feasibility studies to assess project viability; and provision of project financing. By mid-1983, 12 cooperatives were in existence involving 160 youths working 146 acres of land. Productivity was low and unprofitable and could not have satisfied member needs. Professional and social development of members was negligible; any development that was realized tended to result in members seeking private sector employment or migrating to North America. Members lacked training to manage the cooperative, land was limited, and membership fixed in number. NACDA encouraged members to move to lands of inferior quality. Even if land was suitable for cultivation, it was often not irrigable, or members lacked the capacity to manage irrigation systems. NACDA tended to pursue its political mandates, and gave insufficient attention to analysis and evaluation, resulting in poor technical implementation.
Sri Lanka **Gooneratne and Samad 1979: 280-81**	Early land reform cooperatives in the post-war era ended in failure. Renewed attempts were made in 1965 to organize youth farms. The Land Reform Law of 1972 and the Agricultural Productivity Law of 1972 made provision for the establishment of cooperative farms (Janawasas). Objectives were to (1) create employment; (2) increase production; (3) develop cooperative forms of organization; (4) promote self-reliance; and (5) encourage economic and social equality. Apart from a few instances of success, the performance of the cooperative farm sector was discouraging. Youth schemes have been subdivided into individual holdings. DDC (Divisional Development Council) cooperative farms are considered a waste of resources and effort. The Janawasas farms have yet to be properly evaluated.

Peru's 1969 agrarian reform imposed collective property rights and Agricultural Production Cooperatives (APCs) upon beneficiaries. While land was taken away from a powerful landed oligarchy, the elimination of important features of property rights in land and the imposition of APCs had been a major flaw (Hatzius 1994). These reforms were couched within the strategy of import substitution and state-led development that favored industrialization over agriculture. Following the transition to democracy in 1980, government embraced market liberalization. Expropriations came to an end, and more diverse

forms of land ownership and agricultural enterprises were allowed. For the APCs, parcellization accelerated (a process already underway informally since the late 1970s) and member in-fighting

ensued as the existence of privately worked plots on collectively owned land reduced labor contributions on common crops. By the early to mid 1990s, according to Hatzius, large cooperatives were continuing to "muddle through", while small and medium sized APCs continued to decline as a result of parcelization.

What happened? According to Hatzius (1994):

> In the case of APCs the situation with respect to principal-agent relationships was blurred. The government as principal failed to design contractual arrangements which would minimize transaction costs and keep agents such as cooperative members and managers working towards the goal of reaching a high level of extractable surplus. Members would determine wages and benefits irrespective of economic and financial feasibility, resisting any payment system to prevent free-riding, shirking and low quality work. Managers, on the other hand, responsible for decisionmaking and the overall economic result of the enterprise—even though appointed by a government agency—were employed by the cooperatives and could be fired at any time while trying to secure labor effort and quality. Together with the absence of a performance related payment system, temptation was high for fraudulent practices accompanying the purchase of inputs or equipment (kickbacks, overcharging).
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> In smaller cooperatives, members sometimes would be able to monitor each other, thereby reducing free-riding and shirking. In most cases, however, input of labor effort was low as no sanctions…[no] payment system based on piece rates…[or] quality incentives could be established….When members were responsible for the valuable machinery, negligence in operation and bad maintenance led to rapid deterioration. Replacement, on the other hand, was postponed because members generally voted for wage increases instead of productively enhancing investments….Parcellation of APCs is seen as an effort to escape a "high-transaction cost" trap.

Dorner and Kanel (1977) stress the difficulty of overcoming these problems:

> Even with supportive action of state agencies, primary problems of group farming will be those of effective internal organization and of member commitment and morale. It is a delusion to expect that group farms have such obvious benefits to members or such decisive economic advantages to make it possible to overcome easily the organizational problems. These organizational problems are largely due

> to ambiguities in roles of both managers and members of group farms. Members are supposed to be both workers and participants in policymaking; managers are supposed to supervise the workers and at the same time to be responsible to them. (p.8)

As observed by Meyer (1989), slack effort and poor management are the outcomes of role ambiguities and divergent interests of managers and members.

Group farming enterprises tend to experience three generic problems that affect the flow of benefits from the enterprise to beneficiaries: 1) beneficiary demands for immediate consumption needs compete with the capital requirements of the enterprise; 2) problems with incorporating family members into the group farming enterprise (in particular working-age children or spouses of children);[6] and 3) free ridership (Stanfield and Childress 1989). Performance in the Latin American case has also been affected by external factors including excessive state control, corruption of management agencies, inadequate credit, new taxes imposed on the enterprise, low initial capital endowments, and inadequate land or natural resource base.

After the 1979 Revolution, according to Mayoux (1993), two main categories of cooperatives became central to mobilizing support for the Sandinistas and for controlling scarce resources—credit and service cooperatives (CCS) and production cooperatives (CAS). The CAS (emphasized after 1983) varied widely in collectivization of assets. Most were formed by previously landless laborers. Some were successful, particularly those formed by groups that united in the struggle for land, had preexisting kinship ties, or were bound by strong economies of scale in production or use of technology. However, within several years, the CAS sector had become problematic. As early as 1986, one-third of the families (40,000 in 1987 covering 12% of the farmland) had abandoned the cooperative sector and larger cooperatives were riven by inter-community tensions. Many of those with animals or small plots of land were unwilling to give them up to join a cooperative. Thereafter, emphasis shifted to CCS cooperatives. Vaessen, Cortez and Ruben (1999) document the outcome - trends in decollectivization and parcellization - for agricultural production cooperatives in Nicaragua (Region II) between the years 1989 to 1997:

> The total area and the number of members have declined significantly. Former members leaving the CAS often took with them a piece of land. Although land titles were often not formalized or recognized, some members were able to sell their parcels informally. Surprisingly, the share of members with family ties did not increase. While members marry other members, and children have the right to succeed their father or mother, the CAS did not evolve into fully extended family enterprises. Probably because of the crisis, children of members started to pursue their fortunes elsewhere. The share of founder members increased, which can be explained by the fact that non-founders were often excluded from the initial

[6] Members with few or no children often oppose the hiring of children or outside workers on grounds that benefits would disproportionately be pulled toward larger families. Incorporating new members from the outside is often resisted, as existing members aware of the limited resources of the enterprise, fear individual benefits will be diluted by the introduction of new entrants. Finally, under typical inheritance rules, only one family member can replace a member upon death or retirement (Stanfield and Childress 1989).

collective title. Therefore, while having no claim to collective land and low claims to other collective resources, non-founder members were the first to leave the cooperative. The drastic decline in collective livestock and collective machinery is in line with the overall tendency of decollectivization and parcellation….[In] 1997, only 20 percent of the still-existing CAS were involved in any form of collective production. (p. 122)

Although in specific circumstances some CAS continue to operate successfully,[7] the majority of cases have shown that, especially in the field of services and access to labor market, the CAS have lost their comparative advantage in relation to other alternatives. Service cooperatives in Nicaragua offer the same potential in terms of services and patronage as the CAS, while not suffering from internal labor discipline problems relative to collective production. (p. 135)

ONGOING SEARCH FOR NEW COOPERATIVE FORMS

Despite these problems, group ownership models have retained an important position in the agrarian systems of many economies. In some countries within Eastern Europe and the CIS, more than half the land has been transferred from the collective to the private sector, while other countries still lag behind. In Russia, for example, 85 percent of all agricultural land has been privatized, and in Ukraine and Moldova less than 20% of land remains in state ownership. Yet, while the state has relinquished its monopoly on land ownership, this "privatized" land is neither owned nor cultivated by individuals.[8] New landowners are not eager to leave the supportive umbrella of the collective structure and undertake the risks of independent farming. Thus farms tend to reorganize as relatively large units, although with some downsizing. The future of agriculture within the region will be characterized by the coexistence of private farms, restructured cooperatives, commercial farms and part-time subsistence farms (Csaki and Lerman 1997). The experience in Hungary occurred somewhat differently; while cooperatives were forced to reorganize, they did not experience a substantial loss of members, and most APCs survived (and some prospered) although in somewhat smaller forms despite harsh market conditions (Toth, Varga and Paarlberg 1996).[9]

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[7] The better-endowed (in terms of machinery) and well-organized CAS (in terms of sanctioning and supervision systems) proved the most likely to consolidate their collective production activities, best able to protect members against external conditions, and best guarantee income relative to other contractual agreements available to CAS members. CAS oriented to commercial crop production (cotton) provided better protection than livestock oriented CAS (Vaessen, Cortez and Ruben 1999).

[8] For example, reconstitution of collective structures based on individual ownership of land and asset shares, transformation of the collective structure into a joint-stock corporation, division of the collective structure into autonomous profit-oriented entities based on individual investment of land and asset shares and operating within an association or a service cooperative, subdivision of collective entities into family (group) farms, partnerships or production cooperatives, and cooperation of independent entities.

[9] APCs experienced a crisis of reduced earnings, liquidity problems, disrupted market channels, and loss of agricultural subsidies that helped sustain APCs during the socialist period. Following privatization in 1992, only 28 percent of the APCs surveyed remained intact, groups departed in 6% of the cases to form independent economic units, individuals only left the cooperative in 50% of the

In their review of cooperative performance in Honduras and El Salvador, Stanfield and Childress (1989) observed that certain enterprises prospered while others failed. Those that prospered were able to discover innovations that reconciled self-interest with group interests. Innovations included reinforcing family ties through kinship (among smaller cooperatives), maintaining group cohesiveness or homogeneity through place of birth or solidarity (e.g. in the land struggle), presence of strong monetary returns to collective action (through input supply or export market delivery), availability of a technical assistance organization to provide credit, extend knowledge, or provide management; and presence of a strong manager, co-manager or management team. To counter free rider problems, successful cooperatives were those that made compensation proportional to labor performed (through effective monitoring of time worked), enforcing sanctions on counterproductive behavior (expulsion for repeated absence or violation), and reengineering responsibility from the cooperative to the individual for management of individual land parcels. Of the three problems constraining the viability of group enterprises (above), the free-rider problem has been the most widely resolved.

Even studies critical of cooperative performance have not been willing to do away with collective action altogether. In the Dominican Republic, for example, Meyer (1989) observes that while production cooperatives are wrought with administrative problems and low worker incentive, they nonetheless provide superior vehicles for credit and technical assistance. Further, the intermediate Associative Structure is preferred by Dominican reform beneficiaries, in essence, by privatizing the land and transitioning the cooperative toward provision of credit, input purchasing, marketing and capital equipment. (See also Kumbhar 1979 for a successful experiment with the Gambhira Cooperative Farming Society in Gujarat, India in Box B). Cornista (1992) commenting on the cooperative movement in the Phillipines provides a similar history:

> Almost all cooperative programs attempted by the government through the years follow a recurring pattern: at first, an upsurge in the establishment of cooperatives with corresponding increases in membership as reaction to government initiatives; then, cooperative activities and membership decline; ultimately, they become inactive. (p. 6)

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cases, and in 16% of the cases, cooperatives experienced losses of both individuals and groups. Despite Parliament favoring individual family farming, after years of cooperative farming under socialism, individuals lacked the skills and knowledge to become individual farmers. With the privatization of non-land assets in 1992, members were able to leave the production cooperative and to physically take their shares with them with two detrimental effects—non-land assets designed for large scale operation (machinery) were not appropriate for smaller-sized farmers created by exiting members, while the removal of these assets undermined the efficiency of remaining assets in the APC and increased tensions among members. During the change in ownership, crop land and non-land assets became divorced—some new owners own only land and have no other productive assets, while others have non-land assets, but insufficient land to employ those assets. Leasing arrangements have emerged with mixed success; of the new enterprises surveyed, 78% used the land collectively in 1994, of which 61% is leased from members, 28% from outsiders, and 2 percent from other landlords. New enterprises in effect have become leasee organizations without laws protecting the leasee.

Box B: Gambhira Cooperative Farming Society (Gujarat, India)

In 1951, government granted 201acres to 176 cultivators who had lost their land due to river siltation. The land was farmed individually, but few benefits were achieved as the cultivators were poor, lacked resources, and had to obtain water from private plants on a half-share basis. Government in 1953 organized the cultivators into a cooperative farming society based on four principles:

- Only distressed cultivators can become members
- Members had to work in groups
- The group leader (elected) must be a member and has sole responsibility for managing the cultivation of land given to his or her group, and
- 50% of the produce of each group is given to the society as capital and 50% is shared equally among group members to cover labor and production costs.

Group membership grew to 291 members by 1961-62 with the addition of new landless laborers and land provided by government. It was decided in 1960, that no new person should be enrolled as a member until the average size of holding per member becomes 3 acres. Management is vested in a management committee (7 elected and 1 Chairman nominated by the Cooperative Department). The group leader prepares the crop plan in consultation with the Management Committee and Society Chairman. Each member works equal time, and the group leader assigns work as needed (and is paid a bonus in proportion to the productivity of the group.) Besides group leaders, the society appoints three supervisors who prepare daily reports of activities for the Chairman and Manager of the Society. The number of groups operating within the society increased from 17 to 28 in 1976/77, each containing 6-16 members farming 11 to 27 acres. Besides increases in membership and land, groups sometimes subdivided because of group conflict.

The society supplies inputs and provides irrigation facilities and tractor services which are paid for by the 50% share of output (food grains and tobacco) provided by groups to the Society. The Society sells the tobacco crop to obtain good prices from bulk sale. Out of the half share received by the Society, it pays the land tax, input costs, maintains a reserve fund (infrastructure, machinery, repairs, and insurance against acts of God), and redistributes profit to members.

By the time of the study, the Society had uninterruptedly completed 25 years of successful operations by 1977-78. It had been successful in rehabilitating 291 destitutes and landless laborers. The incentive scheme implemented had encouraged active participation of its members. The society had done a remarkable job in land reclamation, capital formation, developing its own irrigation infrastructure, intensifying farm operations, improving farm practices, and increasing labor employment. Net profit per acre and income per member have increased dramatically as have individual and Society assets. The society has also contributed mightily to social development.

What has contributed to the Society's success?: (i) enlightened leadership; (ii) efficient management; (iii) multi-stage supervision; (iv) homogeneous group of members; (v) systematic method of work and remuneration; (vi) flexible labor and participatory management; (vii) wise savings strategies and productive investment; and (viii) fertile land.

However, rather than back away from cooperatives altogether, the Philippine government in 1990 passed the Cooperative Code where beneficiaries through stages acquire common or collective ownership of the land.[10] Unlike previous efforts that have led to cooperative failure, the new program emphasizes participatory planning by beneficiaries in the planning and implementation of activities, continued social and institutional development of beneficiaries and the cooperative's organization, an intention to lessen government interventions that "stifle cooperative initiatives", and the engagement of the private sector in undertaking the actual formation and organization of cooperatives.

Jonakin (1995) presents evidence in Nicaragua that the CAS's studied achieved productivity levels not exceeded by family or private firms. Based on statistical evidence, productivity gains came about as work-based payments increased, and homogeneous origins and wealth endowments of CAS membership contributed to emulative work attitudes. The cooperatives involved were not without problems,[11] but when greater enterprise self-determination was coincident with improved economic performance, CAS members showed considerable ability to deal with attendant problems. These results corroborate the findings of Carter, Melmed-Sanjak and Luz (1993) in Honduras and Nicaragua who demonstrate with caution that APCs do not "intrinsically and irrevocably" negate their usefulness in land reform. According to the authors, in neither country did the APC exhibit inferior economic efficiency compared with control farms (collectively linked private plots or fully individualized private plots). This finding is particularly salient in commercialized agrarian structures where peasant producers are hampered by problems of access to markets and technology, and have displaced them over time. The authors also encourage a policy of institutional flexibility that enable APCs to evolve toward stable organizational arrangements.

HOPE THROUGH "NEW-GENERATION COOPERATIVES"

The rise and fall of agricultural cooperatives is not unique to developing countries in Asia and Latin America. Cook and Iliopoulus (1999) describe the growth of marketing cooperatives in the US in response to depressed prices and public policy incentives. During the early 1900's, US farmers, especially those producing perishable products, faced frequent holdups in negotiations with large processing companies. Marketing cooperatives provided farmers with an institutional mechanism to countervail opportunism and holdup situations. By 1982, cooperatives' shares of farm product and input marketings had reached 30 and 28 percent respectively. This trend turned in 1983 when commodity prices fell and farmers became

[10] Beneficiaries are first organized as an association with assistance of community organizers. When the legal requirements for land transfer are met, the association is transferred into an agrarian reform cooperative; the latter is the recipient of the landownership award (most prototypes have reached this stage). The next steps involve the design of area development plans and sourcing of financial assistance to implement those plans.

[11] The case evidence also pointed toward sources of continued member dissatisfaction and work disincentives. Family related strife, growing in part out of differences in family size, misuse of power and wealth endowments, where present, generated productivity losses. The generally uniform pay scheme and only sporadic piece-rate opportunities meant that workers who would otherwise have desired more work were frequently constrained in their ability to earn additional income.

disillusioned with the inability of their cooperatives to provide better prices than their non-cooperative rivals. By 1987, cooperatives' shares of farm product and input marketings had both fallen to 25 percent.

Member-patrons' growing doubts about the efficiency of their cooperatives relative to investor-owned firms (IOFs) were attributed to the high cost of influencing managerial decisions (*the influence problem*). Cook and Iliopoulos (1999) argue that these transaction costs, seldom recognized in the start-up fervor of combating opportunistic monopsonsists and monopolists, are the result of inadequate property rights and use the New Institutional Economics (NIE) to explain the underlying causes of inefficiency within traditional cooperatives.

Hendrikse and Veerman (1999) cite cases of leading marketing cooperatives in Ireland and The Netherlands changing their governance structure in the direction of IOFs by issuing some form of equity with proportional benefit and voting rights, or by outright conversion to company status. This is consistent with the recent birth and proliferation of non-traditional or "new generation" cooperatives in the US (Harris *et al* 1996). In South Africa, the withdrawal of interest subsidies and other advantages that masked the inefficiencies of cooperatives has also prompted agricultural cooperatives (including the high-profile Cape Winegrowers Cooperative) to reorganize as private or public companies.

These observations support Porter and Scully's (1987) empirical finding that the source of cooperative inefficiency is not due to allocative inefficiencies arising from the pursuit of alternative objective functions (as argued by many scholars of cooperative theory) but inherent weakness in the structure of property rights within traditional cooperatives. Results of their US study indicate that reorganizing a randomly selected (traditional) fluid-milk processing cooperative as an IOF could increase its output by 32.4 percent - without hiring additional inputs. Tax breaks, interest subsidies and the gratis services of the US Department of Agriculture are keeping some of these inefficient cooperatives in business.

The distinguishing features of property rights within traditional cooperatives can be summarized as follows:

- Returns are proportional to patronage and not to investment. Members are often required to make the same investments (i.e. purchase equal equity shares).
- Shares cannot be traded at their market value. They are repurchased at par value when a member exits the cooperative.
- Voting rights are egalitarian and not proportional to investment.

These property rights reflect the underlying Rochdale principle that cooperative enterprises should be controlled by their members and not by capital. This is quite distinct from an IOF where voting and benefit rights assigned to members (shareholders) are directly proportional to their individual investment, and may be traded at their market value.

Jensen and Meckling (1976), Porter and Scully (1987), Cook and Iliopoulos (1999 and 2000) and Sykuta and Cook (2001) explain the consequences of inadequate property rights adopted by traditional cooperatives in terms of the following problems:

- *The free rider problem* discourages member investment because some of the gains from the cooperative accrue to individuals that did not fully invest in developing the gains.

These free riders could be non-members who patronize an open cooperative, or new(er) members who acquire the same rights as initial investors without paying the appreciated (i.e. market) price for their shares.

- *The horizon problem* results from residual claims that do not extend as far as the economic life of the underlying asset. Under these conditions, cooperative members tend to under-invest in long-term and intangible assets (such as market research, product promotion and brand loyalty) because they are prevented from realizing capital gains by retiring shares at their market value. Again, new members become free riders as they benefit from past investments without paying fully for them in the form of higher share prices.
- *The portfolio problem*: Cooperative members demand a premium on their investment, or under-invest relative to their IOF counterparts, because the cooperative's investment portfolio may not reflect the interests or risk attitudes of any given member. Members cannot trade shares at market prices and are therefore unable to diversify or concentrate their own asset portfolios to fully reflect personal risk preferences. This "forced rider" problem is compounded by the cooperative principle of equal voting rights as the portfolio preferred by those members who are willing to risk larger investments in the cooperative is likely to differ from that preferred by a risk-averse majority.
- *The control problem* refers to the cost that members face in monitoring managers to ensure that they make prudent investment decisions and do not shirk or cheat. Although this principal-agent problem is not unique to cooperatives, it is less severe in IOFs where (a) larger investors are able to internalize the benefits of their policing effort (because dividends are proportional to investment), (b) agent performance is clearly signaled by the market/audited value of members' equity shares, and (c) the agents are shareholders themselves (and therefore have incentive-compliant employment contracts).

These problems have starved traditional cooperatives of equity capital, reducing their ability to finance investments needed to maintain a competitive edge. Hendrikse and Veerman (2001) further contend that traditional cooperatives are at a disadvantage relative to IOFs when seeking capital from external sources to finance assets that have specific uses. Specific assets increase the financier's exposure to risk, and external financiers can do little to reduce this exposure when transacting with traditional cooperatives because managerial decisions are controlled by members who have equal or near equal voting rights. This *influence problem* tends to raise the cost of external equity and debt capital to finance assets that have specific uses. For this reason, a switch from cooperative to IOF status is predictable when product markets become more differentiated.

In theory, a cooperative business structure that reduces the efficiency-robbing effects of inadequate property rights would require closed membership with equity contributions that are fully transferable, appreciable and in direct proportion to an enforceable level of patronage (Cook and Iliopoulos 2000). To achieve these objectives without sacrificing the tax, interest and information advantages enjoyed by agricultural cooperatives in the US, new generation cooperatives have substituted fully transferable and appreciable marketing (patronage) agreements for equity shares. Their empirical study shows that these equity substitutes explain a substantial share of the variation in member investments observed in a sample of 127 US cooperatives. In Europe and South Africa where deregulation of agriculture eroded similar advantages once enjoyed by farmer cooperatives, the tendency has been for outright conversion from cooperative to company status—despite a relaxation of cooperative laws to permit some proportionality between equity invested, dividends and voting rights.

The NIE analysis of traditional versus new generation cooperatives sheds much needed light on the type of governance institutions that promote efficient use of co-owned resources. These institutions seek to restore the strong incentives generated within a sole proprietorship where there are no free riders. Assigning tradable property rights that are proportional to individual investment appears to be an important part of this process. However, there are many other institutional factors that affect the performance of group enterprises. For example, the rules governing electoral procedures and financial audits influence the accountability of managers, while the nature of incentive payments to employees influences their work effort. In South Africa, family farms restructured as private companies with workers as co-owners have recorded remarkable improvements in labor productivity thanks to their incentive compatible employment contracts (Eckert *et al* 1996). While recognizing the many advantages of sole proprietorship, this research project focuses on group ownership models because they represent an unavoidable, significant and flawed pathway to land reform. In particular, the research aims to:

- Identify institutional and organizational practices that constrain the success of group enterprises created by privatization and land reform programs. This exercise will apply the NIE to case studies of existing group enterprises, equity-sharing models in particular.
- Determine best institutional practices that broaden and deepen beneficiaries' access to resources and encourage their productive use.
- Apply these best practices to the design or redesign of one or two equity-sharing enterprises that will be facilitated in each country, and,
- Assess how these organizational and institutional innovations can improve project performance, where performance is measured in terms of financial health, environmental sustainability, and the empowerment of beneficiaries, especially women.

BEST INSTITUTIONAL PRACTICES

Returning to the dismal performance of farming cooperatives, Deininger's (1993) assertion that APCs offer no significant economies of scale, introduce severe disincentive effects, have not demonstrated a capacity to produce technical innovations or provide public goods is far from compelling. Certainly there is ample evidence of agricultural production cooperatives challenged from without by poor external conditions or paralyzed from within by internal conflict and weak individual incentives. Yet, even in instances of cooperative "failures", a number of countries have not seen it fit to throw the cooperative model out altogether. And while there are few outright cooperative successes in the developing world, there is certainly sufficient evidence to conclude that APCs have an important role to play in the toolkit of land reform policy. But while it is important to carefully consider arguments of efficiency and performance, there is risk of overly discounting one very important observation—there are many instances where group farming endures in face of persistent failures because individualization does not represent a viable, efficiency-enhancing alternative. Our mission then, for better or worse, is to find solutions to make shared enterprises work better either in terms of improved efficiency, or the adoption of more flexible rules that will enable adaptation to more efficient organizational forms in the future, whether they be state or private.

CONCEPTUAL FRAMEWORK

The research design in figure 1 summarizes characteristics of organizational and institutional arrangements that, based on previous research , tend to constrain or enable economic growth. The policy environment that conditions incentives, legal certainty, and profitability further shapes the effectiveness of these arrangements.

In order to determine best institutional practices, 10-12 enterprises will be selected for case study research in each country from a cross-section of enterprises ranging from relatively successful to unsuccessful. This variation is expected to reveal important differences in indicator variables such as financial performance, enterprise type, use of external finance, relative shareholdings of beneficiaries, geographic region, size and gender composition of the beneficiary group, and choice of legal entities and business organization.

Figure 1: Expected viability of rural enterprises

<table>
<tr><th colspan="2" rowspan="2"></th><th colspan="2">Macro or Meso Policy Environment</th></tr>
<tr><th>KR:
Constrained Policy Environment</th><th>SA:
Enabling Policy Environment</th></tr>
<tr><td rowspan="2">Organizational and Institutional Arrangements</td><td>Sub-optimal arrangements:
Large beneficiary group
Non transferable shareholdings
No external capital
Weak accountability
Poorly defined property rights
Non-proportional income sharing</td><td>Unsuccessful</td><td>Minimally Successful</td></tr>
<tr><td>Optimal arrangements:
Small beneficiary group
Transferable shareholdings
External capital
Strong accountability
Well-defined property rights
Proportional income sharing</td><td>Minimally Successful</td><td>Successful</td></tr>
</table>

BASIS hypothesizes that innovative institutions in flexible policy environments will be the most successful of the institutions analyzed. But what specific combinations of organizational structures, constitutional rules, and operational arrangements are most successful? Analysis of these institutions will identify specific arrangements that positively impact the performance of each enterprise, where performance will be measured in terms of financial health, accountable business practice, investment, environmental sustainability, and empowerment of beneficiaries, especially women.

CASE STUDY SELECTION

In South Africa, the case study research focused on a population of 21 farm worker equity sharing schemes in Western Cape Province that have been in operation for more than one year. A sub-sample of nine enterprises was selected from this group to ensure variation across a number of easily verifiable indicators: use of external finance, size, gender composition, proportion of equity owned by beneficiaries, and institutional arrangements such as choice of legal entities and business organization (communal property associations, partnerships, trusts, and private companies). In essence, an attempt was made to select enterprises with both good and poor performance spread across a range of observable attributes.

The final selection was challenged by two constraints. First, some managers were not available at the time of the study and, in two cases, the managers refused to participate. The nine enterprises surveyed thus represented a high percentage of the population of enterprises in the Western Cape. Second, an additional problem was discovered at the time of the survey—in most instances, enterprises given their short life span to date were unable to give histories (or even a one-year snapshot) of revenue, earnings or financial ratios. Consideration was given to adding enterprises from other provinces, but equity sharing schemes there are not numerous, and have been around even less time than those in the Western Cape. Researchers also gave consideration to the study of communal property associations. Despite their somewhat checkered history on performance (based largely on anecdotal evidence), they represent an important mechanism for land reform in South Africa and so warrant monitoring and research, but resources are not sufficient under this BASIS CRSP grant for such undertaking. Despite these constraints, it is felt that the case study histories based on other attributes along with comparative review of literature above will be sufficient to enable a good analysis of best institutional practices and lay the groundwork for enterprise facilitation in the South African case.

The situation in Kyrgyzstan, because it is more fluid, is more difficult to plan and implement. Enterprises continue to splinter, consolidate and adopt new organizational forms with considerable fluidity and rapidity. In addition, the legal, market and macroeconomic environment in Kyrgyzstan remains both tenuous and hostile to economic growth and the business environment. The workplan in FY03 will continue to have primarily an exploratory and research focus to gain better understanding of these dynamics, and how they impact enterprise viability and restructuring. The team has put in place two research designs, one quantitative (broad based Farm Survey) and the other qualitative (more focused enterprise Case Studies), to help monitor and understand these dynamics. By March 2003, ten case studies will have been undertaken with at least one enterprise studied in each of the following five categories of farming operations: peasant (group) farms, agribusiness processors, collectives, water users associations and farm machinery suppliers. As noted in the above literature review, the very definition of enterprise or association within these categories is somewhat amorphous. However, as in the case of South Africa, the intent in the Case Studies is to identify poor to moderately performing enterprises (it would be an overstatement to say that any are operating well) for purposes of discerning institutional rules and practices that contribute to best lessons or success.

In both South Africa and Kyrgyzstan, in-depth interviews are being conducted with the manager (frequently the previous farm owner), worker-trustees, external financiers, and government officials in the two countries. However, in the case of South Africa, interviews were conducted using a structured, open-ended questionnaire to examine institutional arrangements and their impact on internal rules, practices, management, compliance, incentives, and access to finance. The questionnaires often required respondents to rate their perception of a particular issue using a Likert-type scale with scores ranging from one (excellent) to five (extremely poor). In Kyrgyzstan, the decision was made to use an open-ended questionnaire guided by the same lines of enquiry. It is still too early to assess the strengths and benefits of either approach or country methodology, but apriori, it was felt that the more fixed and transparent rules in the South African case favored a more structured format, while the fluidity of the Kyrgyz case was more amenable to an open-ended, qualitative, narrative approach to gathering data.

CONCLUSION

It is understandable why development practitioners are often skeptical about the feasibility or viability of group farming models, including equity sharing enterprises. This literature review and synthesis has assembled an extensive set of papers documenting the dismal performance of agricultural production cooperatives and collectives. Yet, despite this dismal performance, group ownership models have retained an important position in the agrarian structures of many developing economies. And while there are few outright cooperative successes in the developing world there is certainly sufficient evidence to conclude that group ownership models have an important role to play in the toolkit of land reform policy. But while it is important to carefully consider arguments of efficiency and performance, there is risk of overly discounting one very important observation—there are many instances where group farming endures in face of persistent failures because individualization does not represent a viable, efficiency-enhancing alternative. Our mission then, in this paper, is to lay the conceptual groundwork for finding solutions that either help group ownership models work better, or adopt more flexible rules that will enable them to adapt to more efficient organizational forms in the future.

Under traditional cooperatives, returns are proportional to patronage and not to investment, members are often required to make equal investments, shares cannot be traded at their market value, and voting rights are egalitarian and not proportional to investment. These property rights reflect the underlying Rochdale principle that cooperative enterprises should be controlled by their members, not by capital. This is quite distinct from companies where voting and benefit rights assigned to members or shareholders are directly proportional to their individual investment and may be traded at their market value. Consequently, inadequate property rights adopted by traditional cooperatives create five stereo-typical weaknesses characterized by the: (1) influence problem; (2) free rider problem; (3) horizon problem; (4) portfolio problem; and (5) control problem.

The New Institutional Economics analysis of traditional versus new generation cooperatives sheds much needed light on the type of institutions and organizational features of enterprises that promote efficient use of co-owned resources. While recognizing the many advantages of sole proprietorship, this research project focuses on group ownership models because they represent an unavoidable, significant, and flawed pathway to land reform. Indeed, this research is intended in two different policy contexts (South Africa and Kyrgyzstan) to discover institutional mechanisms (from the bottom up) needed to make group enterprises operate more effectively, and features of the meso- and macro policy environment that will help condition the success of these mechanisms. This literature review has helped immensely to clarify that successes in group farming are possible, that institutional rules and organizational features do matter, and that promotion of group farming need not be squeezed out entirely by the mantra of individual ownership. The fact that our research is linked with USAID mission strategies and government ministries in both countries has to date helped motivate our research. But now, in addition, this comparative literature review beyond strengthening methodological rigor will also help elevate and connect the importance of this research to a global audience.

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