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# **ECONOMIC GROWTH CENTER**

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## **CENTER DISCUSSION PAPER NO. 828**

### **GROUP BEHAVIOR AND DEVELOPMENT: A COMPARISON OF FARMERS' ORGANISATIONS IN SOUTH KOREA AND TAIWAN**

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# **Group Behavior and Development: A Comparison of Farmers' Organizations in South Korea and Taiwan**

Larry Burmeister, Gustav Ranis and Michael Wang

## **Abstract**

This study presents a comparative analysis of farmers' organisations in Korea and Taiwan during 1950-80 in order to help us understand the role of group behavior in affecting development outcomes. It highlights the linkages between group behavior, parastatal organisational structures and economic performance. The paper examines the historical and political economy contexts that led to the creation of both countries' farmers' organisations and highlights the institutional characteristics that impacted their operational effectiveness. The study discusses elements in internal and external policies that affected group motivation and traces the implications of such differences in group behavior for bottom line performance. Though there existed many similarities in both organisational structure and operations, it is argued that differential intra-group behavioral dynamics led to differences in agricultural performance. Although, with the declining importance of agriculture, the relative importance of such organisations has declined in recent years, the study is relevant for developing countries at every stage of development.

JEL Classification: O17

Key Words: Farmers' Organizations, Korea, Taiwan, Group Behavior

# **Group Behaviour and Development: A Comparison of Farmers' Organisations in South Korea and Taiwan**

By

Larry Burmeister, Gustav Ranis, and Michael Wang<sup>\*</sup>

## **I. Introduction**

In response to prevailing agro-ecological and agrarian structural conditions, a variety of rural organisations has arisen throughout East Asia to link small producers to broad national development objectives. Farmers' organisations (FOs) have been critical components of this organisational infrastructure, providing marketing, input supplies, technical information, and credit services to farmer-members. In some countries, such FOs have played quite a significant role as institutional vehicles for promoting agricultural development, while in others they have been less effective (see Jones 1971; Lele 1981; Illy 1983). In this paper, we examine two FOs, the Farmers' Association (FA) in Taiwan and the National Agricultural Cooperative Federation (NACF) in South Korea (hereafter Korea), in order to assess the extent to which such organisations permit us to better understand the role of group behaviour in affecting development outcomes.

The post-colonial regimes in Taiwan and South Korea faced similar agricultural development problems. With land reform and the demise of the landlord class, the mobilisation and coordination of a fragmented smallholder agricultural sector became essential for economic development and political consolidation in both countries. The

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<sup>\*</sup> Our thanks for the able research assistance of Nicola Mrazek.

FA and the NACF, built upon the foundations of predecessor organisations in the Japanese colonial period, were established by state initiatives in the postwar period to perform agro-input supply, marketing support, credit, and technology diffusion functions. While official publications describe these FOs as agricultural cooperatives, farmer-members did not establish them as a result of grassroots collective action. Central government ministries, the Ministry of Agriculture and Forestry (MAF) in Korea and the Provincial Department of Agriculture and Forestry (PDAF) in Taiwan, exercised administrative oversight over the FOs, making them extensions of the state in very important respects. Administrative units in both FOs paralleled the governmental administrative hierarchy (national, provincial, county, township), thus making it easy for the state to engage the FA and the NACF in the service of strategic national development objectives.

Due to their parastatal origins, the organisational structures and operational norms of the FA and the NACF were weighted toward the hierarchical power/control (P/C) “mode of operation” outlined in Chapter One. P/C organisational patterns were, however, modified by linkages to local level groups, both within and outside the formal FO structure. Such groups (e.g. village associations) were comprised of farm households with relatively egalitarian resource bases and social status, a result of significant social levelling brought about by post-WWII land reforms in both countries. Moreover, these groups often had histories of institutionalised cooperative labour arrangements to deal with the onerous seasonal labour demand and irrigation system maintenance requirements of wet rice cultivation (Bray 1986; Oshima 1986).

This socio-economic environment fostered cooperative norms within villages, interjecting important elements of a COOP behavioural mode into the FOs, especially at the lower levels in the organisational hierarchy where routine interactions between farmer-members

and FO staff occurred. Thus, the FA and the NACF organisational cultures combined P/C and COOP modes of operation. This combination of group behavioural characteristics helped the FA and the NACF achieve a level of operational effectiveness that has been evaluated favourably in cross-national comparisons of similar organisations that provide essential services to agricultural producers (Desai and Mellor, 1993; Esmen and Uphoff, 1984:315-317). The relative success of FOs in Taiwan and Korea illustrate what Evans (1996) and others have conceptualised as synergistic “co-production” relationships between the state and groups organised to achieve development goals.

While there are significant similarities in FA's and NACF's organisational structure and operations, we argue that some differences in agricultural sector performance in Taiwan and Korea during the period under review (1950-1980) may have been due in part to the different levels of organisational effectiveness of these two FOs. The literature on the role of FOs in East Asia has largely been silent on the implications of group behaviour for their operational efficiency, mostly focusing on the role of FOs in the context of an old-fashioned agricultural production function. For example, Kwoh (1966) and Kuo and Lee (1982) have analysed the ways in which various operations in Taiwan's FAs contributed to increasing production without addressing the key question of just why they were able to render their services so effectively.

In this study we examine intra-group behavioural dynamics within FOs as another variable affecting agricultural sector performance. We limit our examination to the 1950-80 period, given the decline in the relative quantitative importance of agriculture from the late 1970s onwards in both Korea and Taiwan, which accordingly reduced the importance of farmers' groups as development agents in both countries in recent years. However, our findings remain relevant for countries still at an earlier stage of development.

In what follows we first briefly set the stage by comparing the role of agriculture in the overall development of the Korean and Taiwanese economies in Section II. In Section III, we examine the political economy norms affecting the organisational development of FOs in both countries, and briefly review FO organisational histories and structures. We then examine internal organisational differences in more detail in Section IV, focusing on institutional variables (e.g., organisational structure, process, and norms) that affected the behaviour of both FO staff and farmer-members. In Section V, the implications of such differences in group behaviour for organisational performance are discussed. We conclude, in Section VI, by putting the “modes of group operation” model into a broader theoretical context that helps explain differences in parastatal FO performance in Taiwan and Korea.

## **II. Comparing Agricultural Sector Performances**

Following World War II, agriculture initially dominated the Korean and Taiwanese economies, with well over half of the labor force employed and slightly less than half of gross domestic product generated in the sector. The sector was mostly composed of single-family households who engaged in full-time farming and owned the land they cultivated. Tenant farmers were relatively few and the average size of landholdings small and strikingly homogeneous, due to the land reforms of the early post-war period. This initially gave rise to substantial uniformity of production conditions and organisation. Rice was at first the dominant crop, supplying nearly half of total agricultural income in both countries (see Ban 1979; Ho 1978).

Over time, the economic importance of agriculture declined in both countries (although more rapidly in Taiwan which had a more robust rural development experience), providing only

7 percent of GNP in Taiwan and only 18 percent in Korea by 1981 (Moore 1988:121). The structure of agriculture also changed gradually, with a shift in production away from grains to livestock; an increase in the commercialisation and mechanisation of production; and an increase in the share of non-farm activities in rural household incomes (see Ban 1979; Lee and Chen 1979).

From an international perspective, agricultural performance in both countries has been impressive. Average rice yields in Korea and Taiwan during the 1952-70 period were more than double those of South and Southeast Asia, almost matching those of Japan. Agricultural output growth was also comparable to that of Asian neighbours over the same period, and higher than the world average and that of more land-abundant nations in Africa and Latin America (see Table 1 below). Taiwan's agricultural output initially expanded more rapidly than Korea's because of less wartime disruption, a higher initial level of income, and better macroeconomic and structural policies (see Fei and Ranis 1975; Oshima 1987:149-152). By the mid 1970s, however, agricultural growth in Korea had accelerated, surpassing Taiwan's.



**Table 1 International Comparison of Agricultural Output Growth**

	<b>1952/61</b>	<b>1961/71</b>	<b>1952/71</b>
<b>Korea</b>	3.1*	3.7	3.5
<b>Taiwan</b>	4.1	3.9	4.0
<b>Thailand</b>	5.2	3.6	4.4
<b>North America</b>	1.1	2.1	1.6
<b>Latin America</b>	3.5	2.4	2.9
<b>Africa</b>	2.8	2.9	2.9
<b>Asia</b>	4.2	2.6	3.4
<b>India</b>	3.6	2.2	2.9
<b>Japan</b>	2.4	2.0	2.2
<b>World</b>	2.8	2.6	2.7

\*1954-1961

Source: Ban et al (1980), Table 3.

Despite their broadly similar records, the agricultural sector in the two countries played rather different roles in their overall development. As a catalyst for growth and industrialisation, the agricultural sector in Taiwan was important, contributing substantial net capital outflows to the development of nonagricultural activities (Oshima 1987; Lee and Culver 1985; Lee and Chen 1979). Agriculture in Korea, however, contributed just 10 percent of overall total capital formation during the post-1960 period (Ban *et al.* 1980:23).

Moreover, Taiwan's agricultural households contributed substantial labour inputs to the development process through a remarkable shift in rural household labour from agricultural to rural nonagricultural activities, with off-farm labour participation rising from 29 percent of total rural employment in 1956 to 67 percent in 1980 (Ranis 1995). This helped to produce a decentralised pattern of industrialisation that, in contrast to Korea and most other developing

countries, was primarily rurally based. Although Korea's farm sector also supplied labour inputs to the non-farm sectors, it was less extensive, with a larger share of the labour force retained in lower productivity agricultural activities in 1980 (Oshima 1987:160). Lack of rural industrialisation in the Korean countryside limited the extent of the agricultural to non-agricultural labour transfer that characterised the Taiwanese rural development experience (Ho 1982), and resulted in less income equality over time in rural areas and less convergence between rural and urban household incomes.

Thus, although agricultural development was successful in both countries, agricultural labour productivity in Taiwan rose faster and there were substantially higher savings from the sector.<sup>1</sup> This was partly due to differences in initial endowments, such as Taiwan's more favourable rice-cultivating and multiple-cropping climate, and differences in government policies, such as Taiwan's higher rate of agricultural sector investment, less bias against agriculture in the inter-sectoral terms of trade (Ho 1978; Ranis 1989), and a more favourable climate for rural industrialisation. But, we believe, another component was the more effective role of rural institutions in Taiwan, specifically the farmers' organisations, which appear to have been instrumental in increasing agricultural productivity through their input, marketing and extension

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<sup>1</sup> See Agricultural Development in China, Japan and Korea, Chi-Ming Hou, Tzong-Shian Yu, editors, Academia Sinica, Taipei, 1982, especially the chapter on Korea "The Growth of Agricultural Output and Productivity in Korea, 1918-1978", by Sung-Hwan Ban and the chapter on Taiwan "Secular Trends of Output, Inputs and Productivity" by Yueh-eh Chen and You-tsoo Weng. The data indicate a 3.9% annual growth of agricultural labour productivity in Korea from 1946-1977 while Taiwan's increased by 4.3% annually from 1951-1977.

functions. According to Oshima (1986, Table 1)<sup>2</sup>, total factor productivity in Taiwanese agriculture was higher than in Korea during the 1953-80 period. As a result, Taiwan's agriculture was able to supply more resource transfers through savings and consumption to support the national development project. In Sections IV and V, we examine the reasons for the favourable performance of FOs in both countries, exploring the differences between FOs in Taiwan and Korea, focusing on both the internal and external environments that influenced FO group dynamics. But first, we need to review the historical and political economy contexts of FO creation and development in Korea and Taiwan.

### **III. Organisational Histories and Overview**

#### *A. The Political Economy of FO Development Dynamics*

Important differences in the politics of regime consolidation in the two countries affected FO structure and procedures, as did the broader macro-norms operating in the political economies of both countries.

After Taiwan reverted to the Republic of China (ROC), following the Japanese surrender, the indigenous Taiwanese reacted strongly against perceived Kuomintang (KMT) misrule on the island. Social unrest led to a purge of the Taiwanese elite by the ROC authorities, i.e., the infamous February 28, 1947 (2/28) "Incident" (see Gold 1986:47-55). This early assault on the indigenous Taiwanese made Chiang Kai-shek's withdrawal to Taiwan from the mainland, following the KMT's defeat in the Chinese Civil War, a potentially explosive political issue, as the mainlanders filled top positions in the state apparatus and the military. In order to mitigate tensions generated by the KMT's withdrawal to Taiwan, the regime had to cede some political

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<sup>2</sup> From 1952-80, Taiwan's total factor productivity in agriculture grew on average 2.2 percent a year, while Korea's average annual total factor productivity decreased by -0.2 percent from 1953-80.

and economic space to the indigenous Taiwanese. In the political sphere, a degree of local autonomy was institutionalised through the election of local government executives and the establishment of local legislative assemblies. While the KMT did retain control of larger-scale strategic, state-owned enterprises, most of the economy, i.e., agriculture and medium- and small-scale industry, remained open to indigenous Taiwanese entrepreneurship.

The need for political legitimisation, together with strong pressure from the Joint Commission on Rural Reconstruction (JCRR) (Shen 1970), led to a modicum of self-rule within the FA system. The JCRR, a rural development agency largely supported by U.S. foreign aid funds and staffed by American advisors who worked in concert with Chinese counterparts, pushed for democratic procedures in FA operations. The JCRR's unique influence in the KMT regime encouraged FA development in line with agricultural cooperative ideals of grassroots ties between staff and farmer-members and participatory organisational governance, quite at odds with the one-party, bureaucratic-authoritarian structure of the overall ROC state apparatus. As we shall see, this led to procedures that included an element of farmer-member participation in FA governance through FA assembly elections (see Section IV below).

Post-war political dynamics in Korea provided less political space than in Taiwan for the institutionalisation of formal democratic processes at the local level. During the U.S. military occupation (1945-1948), rural social discontent over the slow pace of land reform and the retention of much of the colonial administrative ruling apparatus (lower ranking government officials and police who were viewed as Japanese collaborators) erupted into violent uprisings against the authorities in the countryside in the autumn of 1946 (Cumings 1981; Shin 1996). In the initial stages of the Korean War, territory in the South passed back and forth from Communist to ROK (Republic of Korea) rule, leaving lingering questions about village political

loyalties in some regions (Brandt 1971:189). Threats of anti-regime political agitation and communist infiltration seemed uppermost in government thinking about the consequences of open politics in the countryside. While local level officials were elected during the Rhee regime (1948-1960), local autonomy was completely abrogated by the military government of General Park Chung Hee, who came to power in the 1961 coup.

The NACF was established shortly after the Park military coup. It was organised as a centralised, top-down bureaucracy. During the NACF's formative period many of the top administrative officials were either active or retired high-ranking military officers. Unlike the Taiwanese case, there was no external body like the JCRR arguing for farmer-member participation in NACF governance.

It also appears that the different trajectories in regime consolidation produced some differences in modes of behaviour at the macro level. While both countries had P/C as the dominant mode, the system appears to have been less hierarchical in Taiwan, with more independent, or quasi-independent, bodies influencing policy and a greater role for the market. For example, Korean economic policy-making was centralised, the Prime Minister chairing the Central Economic Committee and the Deputy Prime Minister the Economic Planning Board. In Taiwan central planning agencies were more decentralised and generally fell outside formal bureaucratic structures (Cheng et al 1996; Scitovsky 1985; Patrick 1994).

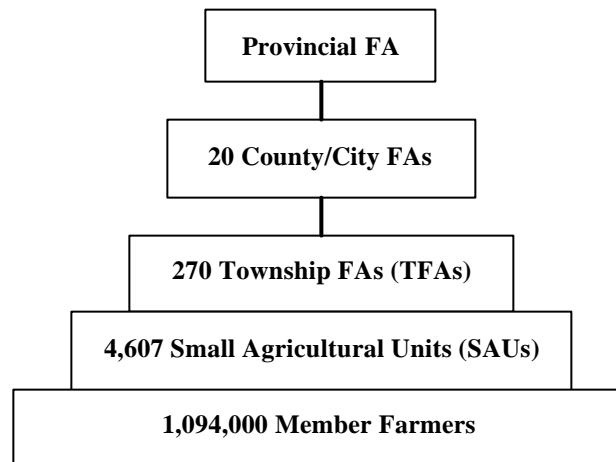
Overall, while P/C elements dominated in both countries, Korea's macro-policy-making appears to have been more centralised and interventionist, while in Taiwan a more decentralised approach was in evidence, with greater elements of COOP motivation. These differences in the political economy context were reflected in differences in the behavioural dynamics of the FA and the NACF. The structures and operational norms of the FOs are examined next.

### *B. Overview of Organisational Structures*

As formal organisations, both the Korean and Taiwanese FOs had similar historical antecedents in the colonial period. Farmers' organisations became official entities during the Japanese occupation when rural self-help groups that had been established among the land-owning elite were made part of the colonial administrative apparatus. During the Japanese colonial period, these groups helped to mobilise local resources for the increased production of agricultural commodities as part of overall policies that incorporated the Taiwanese and Korean rural economies into the infamous Greater East Asian Co-Prosperty Sphere (see Kwoh 1966 and Jong 1991).

Following World War II, between 1946 and 1953, the Taiwanese FOs underwent a substantial reorganisation. A critical player in these decisions was the JCRR. Based upon the JCRR's recommendations, the FAs developed into their present three-tier, vertically organised structure, comprising farmers' associations at the township, county/city and provincial levels (see Figure 1 below).

**Figure 1 Taiwan Farmers' Association Organisational Structure**



Source: Kwoh (1966) and Mao and Schive (1995).

By the 1980s, there were 291 farmers' associations in existence, made up of 1 at the provincial, 20 at the county/city, and 270 at the township levels. Their membership totalled 1,094,000, including over 90 percent of all farm households. Under the township FAs (hereafter TFAs), there were 4,607 small agricultural units (hereafter SAUs), one in each village on average, acting as a bridge between the TFA staff and farmer-members, and serving as the basic unit for election purposes (see Lee and Chen 1979:43). Agencies within the PDAF provided overall supervision of FA operations. A similar, but proportionally smaller, organisational structure existed in the earlier period.

In Korea, the functions and structures of FOs linked to the colonial era administration also underwent reorganisation between 1946 and 1961, resulting in a similar three-tier, vertically linked organisation.<sup>3</sup> By the 1980s, there were more than two million member farm households in 1545 primary and 140 special cooperatives, supervised by 9 provincial offices under the

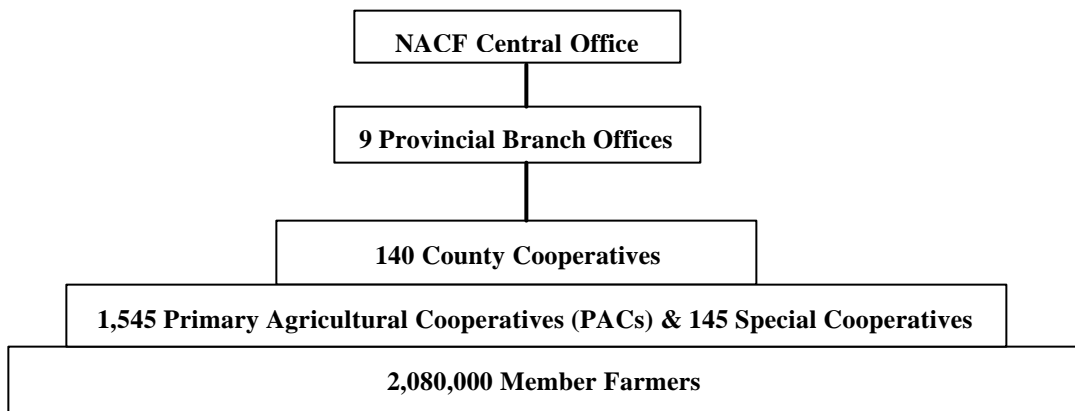
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<sup>3</sup> In 1981, the system underwent further reorganisation, becoming a two-tier organisation comprising only national and local levels, with county-level units merged with provincial units into the federation (national) level and the PACs (township units) as the primary local level NACF agencies.

control of the central NACF bureau. More than 90 percent of farm households were members of primary agricultural cooperatives (hereafter PACs), with the average PAC unit containing about 1200 members (see Figure 2 below). Once again, a similar, if proportionally smaller, organisational structure existed in earlier years.

No JCRR equivalent existed in Korea, which received U.S. aid in a more traditional fashion, i.e. via line Ministry allocations coming through the Economic Planning Board. Instead, the highly centralised Korean bureaucracy directed organisational policy changes as well as resource allocations to the NACF. As a consequence, compared to Taiwan, the macro and micro policy environment in Korea was less flexible and accommodating of organisational changes which might have strengthened COOP horizontal linkages between staff and farmer members.

**Figure 2 NACF Organisational Structure**



Source: (Lee, Kim and Adams 1977).

*C. Group Behaviour and FO Effectiveness*

Unlike irrigation and other natural resource systems or public goods, the provision of farmers' organisation services does not fall neatly into the category of a common-pool resource (CPR) problem (see Ostrom, Gardner and Walker 1990). Although some of the benefits deriving from FO services share the common feature with CPRs of being costly to exclude beneficiaries,



one member's usage does not necessarily subtract from the amount available to others. "Free-rider" problems are therefore not as debilitating as with CPRs. Moreover, because of their parastatal character, collective action problems involved in organising FO services are also not as relevant because government agencies ultimately ensure provision.

Where collective action and effective group functioning do factor in, however, is with the quality of FO services. The effectiveness of FO services depends to a large degree on the interdependent efforts of both officials and members, something referred to in the literature as 'co-production' (Ostrom 1996). For example, FO marketing services require not only technical knowledge related to storage and transportation on the part of staff, but also the time-specific and place-specific local knowledge of the commodities to be marketed that only farmer-members possess. With regard to extension and credit services, the scientific information and administrative skills of FO staff are clearly key, but so is the utilisation of such services by farmer-members, to generate efficiency gains through economies of scale.

Working together as a group is thus important for FO performance, and inputs from both sets of actors are necessary. In order for group efforts to succeed, incentives must be in place that motivate actors to work collectively towards similar goals. The collective action problem, therefore, is less one of ensuring individual contributions of effort, as in irrigation groups, than one of ensuring that efforts are focused on increasing collective rural welfare. Such group dynamics are not intrinsic to the FO setting, but are conditioned by group relationships within the organisation, as well as interactions with the external environment in which the group operates. Organisational variables are particularly important because they help to define the parameters within which interactions between staff and farmer-members take place. Different organisational

structures and processes foster different rule- and norm-based relationships, generating principal/agent relationships of varying degrees of effectiveness.

#### **IV. Internal Organisational Differences Affecting Group Behaviour**

As we have seen, on the surface the NACF and the FA had similar formal organisational structures, but there were variations in internal structure and process, affecting group behaviour, leading to differences in organisational performance.

##### *A. Degree of Operational and Financial Autonomy*

The FOs in both Korea and Taiwan were far from being autonomous grassroots organisations. Rather, they were more akin to parastatals (Mengistu 1993), operating with a heavy dose of central government control and carrying out a number of activities on behalf of the government, such as rice collection and fertiliser distribution. In both countries, village level FO affairs were strongly regulated by county offices, which, in turn, were directly supervised by the FO provincial and/or national bureaux and ultimately central government ministries. It was not uncommon to have extensive interaction between central government and FO officials at all levels (Aqua 1974).

On closer examination, however, there appear to have been variations in the degree of autonomy under which the two systems operated. The key difference was that, at the local level, Taiwan's FO had relatively more autonomy over the operation of day-to-day activities than Korea's, even though in both cases higher level supervisory bodies often made important organisational decisions. This difference stemmed in part from the strength of Taiwan's TFAs (the lowest organisational level in direct contact with farmer-members) relative to local level NACF units (PACs) during the first decade of organisational development. Self-financing

possibilities for local activities depended on these TFA's capacities to generate funds through the development of local banking operations. This occurred from the outset within the FA system through the TFAs, while PAC (township level) banking operations were only consolidated during the 1970s in the NACF system.

TFAs had to live with a more binding budget constraint based on locally generated funds than did their Korean counterparts, which were more dependent on central transfers. From the outset of FA establishment, TFAs were expected to operate more or less as self-sustaining economic enterprises (Davison 1993:198). FO staff members in Taiwan were therefore more dependent on the success of local services provided under their supervision, which often generated revenues that supported other FA activities. Moreover, because a greater share of operational funds was generated locally, Taiwan's TFAs also had more operational latitude in making decisions about the allocation of local expenditures.

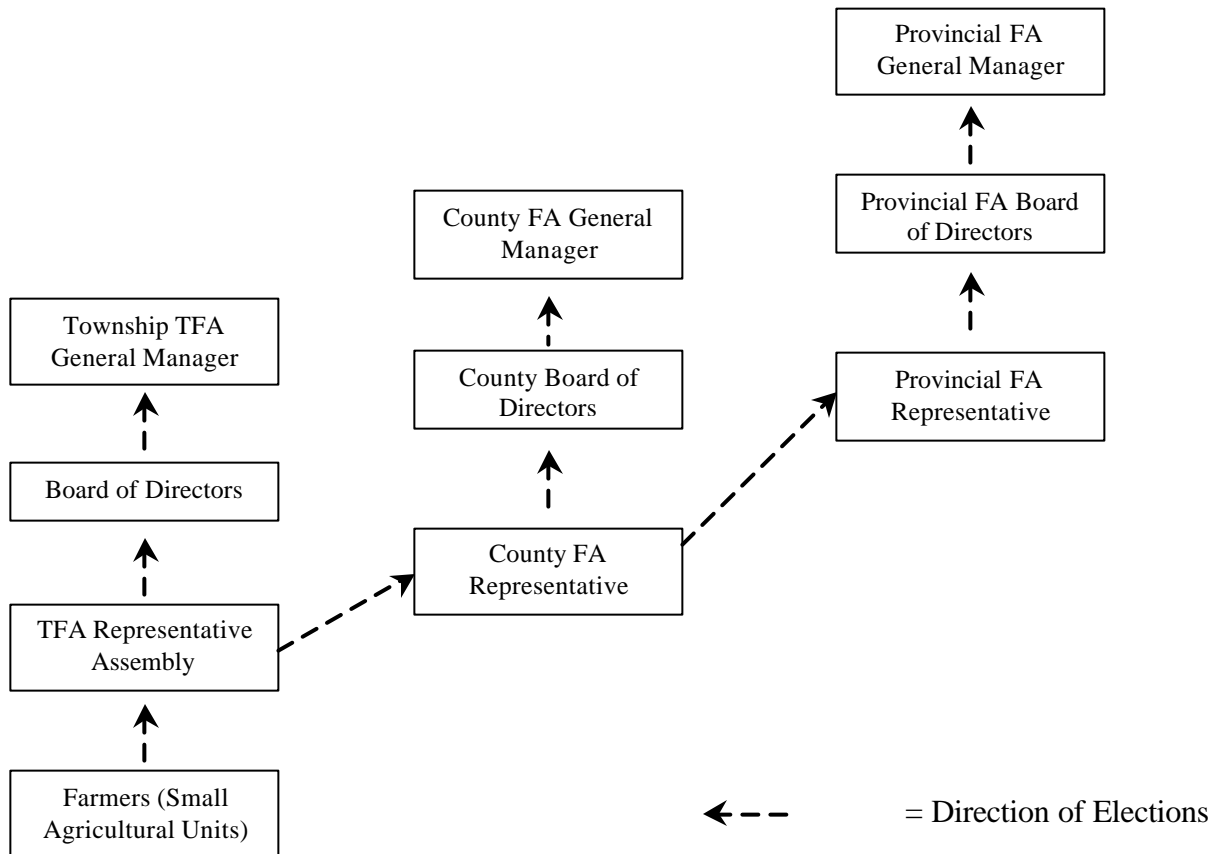
### ***Degree of Member Participation in Local Decision-Making***

Again, as a result of their institutional history as parastatals, both the FA and the NACF had limited participatory structures for members. In Korea, only after the 1989 NACF reforms (see Burmeister 1999), were members able to elect PAC presidents, and, for the first time, have some institutionalised voice in the organisational governance.

In Taiwan, farmer-members, meeting in small units comprised of members of the same village, voted once every four years for representatives to the TFA assembly, whose main functions were to approve or disapprove TFA activity plans and elect a board of directors and a board of supervisors (Kwoh 1966: 2). The board of directors met every two months and was charged with the policy-making functions of township associations, the most important of which was the selection of a general manager in charge of the TFA's daily functioning and policy

implementation. The board of supervisors, on the other hand, dealt only with the auditing of accounts. This process was repeated at both the county and provincial levels (see Figure 3).

**Figure 3 Election System in Taiwan's Farmers' Associations**



Source: Stavis (1982:219).

Although Taiwanese farmers thus had more formal channels through which to participate in FA affairs, the extent to which this actually resulted in greater accountability and responsiveness on the part of FA officials was limited, mainly because they had a direct participatory role at only the most basic level, i.e., in electing township assemblies, while for those township bodies actually charged with policy-making powers, i.e., the board of directors, farmer-member input was often indirect at best. Especially further up in the organisational hierarchy, the impact of farmer participation became more diluted, as the provincial board of

directors was selected by representatives three times removed from direct election by farmer-members (see Figure 3) (see de Lasson 1976:226-230).

Moreover, the election for FA township representatives was a heavily politicised matter, with intense political competition (de Lasson 1976:173-184) which might involve vote-buying and the use of patron-client, friendship, and kinship ties to solicit votes (Stavis 1974: 100). The selection process was therefore often dominated by concerns which were independent of professional qualifications or farmer preferences.

Even though the election system may have been subject to corrupt practices and was judged to be of limited effectiveness in institutionalising democratic principles of representation, this flawed election process was, it appears, important for group motivation in Taiwan. From a sample of farmer members drawn from different TFAs, de Lasson (1976:219) found that over 65 percent perceived the FA as belonging to members, and that 49.5 percent believed that this was because members “controlled” the FA.

Rather than formal mechanisms, however, informal channels may have been the more important means for members to affect decision-making processes. Although in neither case did interactions between farmer-members nor FO decision-making staff occur on a frequent basis, it appears that Taiwanese farmers had much more access. Wade (1982:84) reported, for example, that in the case of Korean irrigation associations (which he took to be similar to NACF operational modes in important ways), face-to-face communication by farmers with directors was rare. In contrast, de Lasson (1976:202) reported that, in a sample of 337 FA members, nearly 30 percent talked with the TFA General Manager at least once during the season, and over 70 percent at least once during the year, and that communication with the chiefs of the village-

level small agricultural units (SAUs), charged with conveying concerns to FA officials, was even more frequent.

### *B. Hierarchical Relations within the FOs*

The extent of hierarchy in organisational relationships also affected group behaviour by influencing the degree to which local concerns were transmitted vertically and the extent to which coordination occurred between levels. On the surface, the NACF and the FAs were structurally similar, but it seems that the FAs had fewer formal restrictions regulating the interactions between organisational levels.

More specifically, the NACF delayed the introduction of effective local level primary agricultural cooperative (PAC) units that dealt directly with farmer-members. Because of this, village level PACs often did not initiate meaningful relations with farmer-members in the NACF's early stages of development; and local units were not consolidated into more effective township level PACs until the early 1970s. As a result, in the NACF case, the higher administrative (i.e., federation) levels of the organisation dominated organisational operations for a decade before township (local level) PACs became effective parts of the organisation.

In Taiwan, on the other hand, the central government, responding to pressures from the JCRR, encouraged the development of grassroots township units within the FA organisational structure from the outset. Furthermore, township FAs were linked to village level groups, i.e., the small agricultural units (SAUs). Thus, the FA system fostered a more "organic" social connection between farmer-members and the organisation. These differences in organisational development permitted a more balanced relationship between local levels and higher levels in Taiwan, in contrast to a more top-down, hierarchical relationship in the Korean NACF.

That this is the case is also suggested by differences in the bureaucratic procedures in the personnel systems of the two FOs. In Korea, there was very little vertical movement by staff members between the national and local levels, with NACF staff at the township level rarely moving to federation staff positions and vice versa. This hindered the ability of federation field staff to acquire local knowledge or to familiarise themselves with membership interests particular to specific localities. In fact, the NACF personnel system was effectively separated into a higher status federation level subsystem and a lower status PAC level subsystem, with different recruitment practices and career ladders within these subsystems (Wade, personal communication). This strong bureaucratic separation within the organisation fostered a hierarchical divide between the federation and the PAC levels of the NACF that attenuated information flows between the levels and may have accentuated the influence of central government directives and reduced that of farmer-member preferences.

In Taiwan, on the other hand, there seemed to be more opportunities for staff to move between organisational levels. Hierarchical relations in Taiwan were mitigated by the system linking upper and lower level FA directorates. The chairs of the boards of directors at the lower level farmers' associations acted as representatives to higher level FA assemblies, thereby serving as institutionalised links between upper and lower levels of the organisation. This connection helped to promote more flexible intra-organisational personnel movements (Davison 1993:194).

Furthermore, the mainlander-Taiwanese ethnic divide manifested itself in the FA hierarchy in a way that may have made higher level FA units more responsive to farmer-member entreaties. de Lasson (1976:245) reports that FA staff at the TFA level was entirely Taiwanese in ethnic composition, whereas mainlanders comprised 40 percent of staff in the provincial FA

offices. TFA officials were, in a sense, representing a unified ethnic bloc, which, as we have said earlier, resented mainlander domination, which may have made them keener to represent farmer-members in decision-making.

### *C. Personnel Policies*

FO hiring and promotion practices also affected group action by influencing the incentives facing FO officials in their provision of services. In both countries, practices favoured a commitment to local development initiatives, compared with elsewhere (Wade 1982). For the most part, FO offices in township level FOs in both Korea and Taiwan were staffed locally, with the majority of staff born in the locality in which they served. Furthermore, FO staff members in both the FA and the NACF were not greatly differentiated from their farmer membership in terms of education or income levels. In fact, many of them were farmers themselves, with a prime motivation for working in rural areas being the ability to be near their farms (de Lasson (1976:140). The local affiliation of the staff in both organisations was important because it meant that workers had a vested interest in the area of the township FOs. Moreover, the “embeddedness” of local staff in the local community contributed to a sense of shared mutual obligations and experiences that enhanced staff accountability. In both countries, higher ranking staff at the township level tended to remain in the same position for long durations, often 15 years or more in Taiwan (Stavis 1982:96). This practice contributed to group motivation, as interaction with the same group of farmers over a long period necessarily encouraged the development of good relations between staff and farmer-members.

### *E. Identity Formation*

In Taiwan, membership in the FAs involved two different levels—a category of full members who received more than half of their income from farming and a category of associate members who were rural residents not engaged in full-time farming. Although full and associate



members had access to all FA services, only full members could vote for FA representatives. This dual membership system helped strengthen the role of farmer-members in the organisation, instituting a sense that the FAs were truly a vehicle for serving mainly collective farming interests. Furthermore, the village-level SAUs, as sites of FA activities that brought neighbours together in their status as farmer-members, undoubtedly contributed to feelings of collective identity.

By contrast, identity formation within the NACF seemed much less strong. This was brought home to one of the authors (Burmeister) in fieldwork settings, when farmers talking about the NACF as an organisation and its activities, used the term “government” interchangeably with “agricultural cooperative.” The bureaucratic distance we have described earlier that characterised NACF inter-unit relationships, and the fact that it took time for viable PAC units to develop, generated a greater feeling of NACF remoteness among farmers.

#### *F. Organisational Differences and Modes of Group Behaviour*

In terms of the theoretical framework laid out in Chapter 1, the combination of organisational differences between the FA and the NACF outlined above led to some differences in group behaviour between the two organisations. Both were largely P/C, but in the FA system, elements of COOP relationships between FA staff and farmer-members were institutionalised as a result of a combination of greater farmer-member participation in organisational governance and a heightened sense of group identity among farmer-members. Moreover, the greater operational and financial autonomy of the TFAs, combined with a more binding budget constraint, which linked profitability to performance, created more M behavioural norms. Further evidence of whether and how these differences affected organisational performance is presented in the next section.

## **V. Comparative FO Performance**

Both the FAs and the NACF were organised as multipurpose organisations, providing a variety of services. These included the marketing of farm products, the sale of agricultural inputs such as fertiliser and the provision of agricultural extension services, although this latter function was much more prominent in the FA system than in the NACF. In addition, both organisations provided credit, insurance and food processing services, which will not be examined here.

In comparative cross-national assessments of performances, both the FA and the NACF do rather well. Esman and Uphoff (1984:315-317) judged FA performance “outstanding” in comparison with other Asian FOs engaged in similar activities. Favourable comparisons have also been made between Korean rural organisations (including the NACF) and South Asian counterparts (see Wade 1982). Positive attributes that distinguish them from other FOs in this comparative literature include ubiquitous local branch offices, which makes their services easily accessible to members; the relative homogeneity of membership which makes identification of relevant services easier for FO officials; and the social accessibility of FA and NACF staff to the membership, i.e., local staff were often natives of the areas in which they worked and had similar social status to their farmer-member clientele. The well-functioning nature of both FAs and NACF was in part responsible for the relatively good agricultural performance in both countries. Nevertheless, organisational differences illuminated in the preceding section did lead to some differences between the FA and the NACF in the effectiveness of service provision, a subject to which we now turn.

Due to the nature of the organisations in both cases, organisational goals were multiple and at times contradictory. Given their parastatal nature, government goals for agricultural sector performance, e.g., increasing agricultural productivity, fostering strategic intersectoral linkages, maximising foreign exchange earnings, or generating domestic savings, were given high priority within the respective FO bureaucracies. But the FA and NACF were also membership organisations, at least in their legal charters and self-descriptions. As a result, farmer-member concerns with respect to reasonably priced services and their timely provision were considered, if not always honoured, in decision-making.

A. *Agro-input Supply and Product Marketing*

These two functions are treated together because government-“entrusted” business comprised the major component of FA and NACF activities in these areas. Both governments used the FA and NACF to achieve strategic policy objectives related to food systems. Tight government controls were placed on the staple foodgrain economy (especially rice) in order to stabilise prices for this politically sensitive commodity. Hyperinflation fuelled by staple food scarcities had been experienced by the KMT on the mainland and during the initial stages of U.S. military government rule in post-liberation Korea. These memories help explain why government intervention in the staple foodgrain sub-sector was so pronounced. Moreover, rice had to be provided at below market prices for the military in both countries. On the agro-input side, fertiliser was in chronic short supply in the early post-war period. As a result, both governments invested substantial resources in the establishment of domestic fertiliser industries as part of import substitution industrialisation strategies that created backward intersectoral linkages (see Burmeister 1990:211-213). Farmers were then “conscripted” to purchase the output of this new industry as soon as production came on stream to ensure economic viability.

Both the FA and the NACF were merely collection and distribution agents for these strategic “entrusted” businesses, with rice marketing and fertiliser supply by far the most important in terms of the value of products and of agro-inputs handled. The FA and the NACF received a set commission for handling rice and fertiliser, with government agencies determining amounts marketed and prices at different stages in the marketing chain.

In terms of aggregate contributions to agricultural development objectives, the fertiliser distribution to farmers increased substantially between the 1960s and the mid-1970s. As a result, Taiwanese and Korean farmers enjoyed some of the highest application rates of fertiliser per unit area in the world. Through FA and NACF channels, farmers thus received inputs that contributed substantially to aggregate productivity increases and promoted staple foodgrain self-sufficiency, important government policy goals during this period. The high level of fertiliser use is indicative of the effectiveness of FOs in both countries.

Where organisational differences show up is in the precise way in which fertiliser distribution was handled. Whereas government agencies determined how much fertiliser the FA and NACF were to distribute in the aggregate, the FA farmer distribution procedure involved more individual farmer input in determining the amount consumed. The procedure for obtaining fertiliser in Taiwan required a formal application by farmers to TFA units detailing the area of cultivation, the type of crops to be planted, and an estimate of the amount of fertiliser needed. The TFAs then passed on the application to higher level FA offices who delivered the requisite amounts to the township offices for sale (Lee and Chen 1979:41). In Korea, this distribution was more centrally directed and involved less farmer input, with the NACF deciding on the requisite amounts of fertiliser, based on overall cadastral and crop information provided by the MAFF, as well as on the production estimates coming from the state-controlled fertiliser plants. This

amount was then distributed to county and township NACF units for sale to farmer-members (Yang 1979:112). Field investigations by Aqua (1974:63), Sorensen (1989:86), and Reed (1979:99) attest to the top-down, inflexible nature of the NACF distribution process from a farmer-member perspective. The bulk of NACF distribution was handled by geographically remote county level offices prior to the 1970s, before many township units had become viable operations. By contrast, in Taiwan, the distribution was handled by local TFAs, thus providing further evidence for our earlier claim that differences in the historical development of the organisational structure of the two FOs led to more “bottom up” information flows and more effective demand satisfaction there than in the “top down” NACF mode of operation.

Another important performance difference between the FA and NACF input service was in the fertiliser/rice terms of trade established during the period under review. It is widely acknowledged in the literature that both the Taiwanese and Korean governments sold fertiliser to farmers at prices above the world market level. That said, terms of trade for fertiliser improved over time in Taiwan. Ho (1978:153) reported that “... the fertiliser/rice barter ratio for aluminium sulphate, the most widely used fertiliser in Taiwan, fell from 1.5 kg of rice per kg of ammonium sulphate in 1949 to 0.9 kg in 1960 and 0.53 in 1972.” While fertiliser was provided by the NACF to Korean farmers at prices below domestic fertiliser production costs during the period under review, the data do not reveal a comparable downward farm-gate price trend as noted for Taiwan. Rather, Moon (1984:75-76) concluded that “...Korean farmers ... have paid high fertiliser consumption taxes ...” In effect, Korean farmers helped to subsidise the domestic fertiliser industry which was the starting point for the petrochemical component of Korea’s heavy industrialisation drive in the 1970s.

The more favourable terms of trade for fertiliser in Taiwan may be indicative of relatively more effective FA articulation of farmer interests within the government bureaucracy. de Lasson (1976:245-246), for example, attributes this positive outcome from the farmer-members' perspective to greater FA ability to make "suggestions" to government about policy changes that farmers favoured.

In terms of marketing services, neither the FA nor the NACF had stellar records with regard to self-initiated marketing activities. Evaluation studies (de Lasson 1976:268,339; Brake *et al* n.d.:31,36), completed in the 1970s, indicated farmer dissatisfaction with FO performance in developing stable market outlets for cash crops. This was one of the most glaring weaknesses of FA and NACF operations, as both FOs had difficulty establishing cooperative marketing outlets that facilitated farm household diversification into higher value commodity production.

In the NACF case, government attempts to use the NACF to encourage crop diversification had negative consequences for organisational legitimacy among farmer-members. A particularly painful example was the infamous "sweet potato" incident in 1965 (Hans *et al*. n.d.:33). As part of a government attempt to promote the local production of sweet potato inputs for industrial alcohol manufacturers, the NACF was ordered to allocate production quotas to farmer-members in traditional sweet potato production areas with promises of favourable producer purchase prices. Due to budgetary shortfalls the government failed to honour its purchase commitment to the NACF. There were several unruly protest demonstrations at NACF offices in affected regions, generating widespread negative publicity for the NACF and damaging farmer-member confidence in the organisation. In Taiwan, however, this type of crop promotional activity, orchestrated by the FA, seems to have been more successful. Stavis

(1974:83-84), for example, cites successes in FA involvement with high value mushroom and asparagus export production, which provided significant income increases for farmer-members.

### *B. Extension Services*

While extension departments were important components of both the FA and NACF organisational structures, extension outreach activities were quite different in each FO. In Taiwan, the central government placed responsibility for agricultural research with the provincial research department. This department developed new technologies and passed them on to the FAs for testing and diffusion. In Korea, by contrast, primary responsibility for both research and extension were housed in a separate agency, the Office of Rural Development (now the Rural Development Administration), administered by the MAFF. This meant that the FAs in Taiwan were actively engaged in a variety of agricultural technology improvement projects, whereas the NACF's role was much more limited in terms of technology promotion and diffusion. In describing what the NACF "guidance bureaux" (the extension department) did, the Korean Agricultural Sector Study (KASS) evaluation reported that "NACF field personnel tend to be generalists and guidance activities are concentrated on developing annual plans and on implementing the lending program and collecting loans." (Brake *et al.* n.d.:36). By contrast, in Taiwan extension agents were conduits for strategic technical components of improved farming practices such as improved seed varieties and livestock reproduction techniques. Stavis' analysis (1974:81-85) of FA extension activities affirmed patterns of easy communication between extension agents and farmer-members, facilitated by the fact that many extension agents were themselves farmers.

Brandt's (in Ban, *et al.* 1980:270) observations on typical Korean communication patterns in extension work is illustrative of important procedural differences in the two countries. He

reported that village heads were often summoned to township offices to meet rural guidance (extension) officers. The officers relayed advice to the village leader who then went back to his village and imparted this advice to farmers. By contrast, FA extension agent procedure was often to go to SAU (Small Agricultural Unit) meetings of FA farmer-members in the villages. This procedure reveals not only the more participatory nature of extension program communication patterns in Taiwan, but also that this pattern of small group FA social interaction about farming matters of common concern undoubtedly increased farmer-member identification with the FA as “their” association and enhanced elements of COOP behaviour.

This responsiveness was organisationally reinforced by the way in which extension activities were funded. Township level units were responsible for funding part of local level extension activities out of FA operating profits. Kwoh (1966:11) reported that in 1962 total expenditures for FA extension services were funded from the following sources: 14.6 percent from membership dues and contributions; 31.7 percent from extension service fees; 13.2 percent from the net profits of FA business operations; 8.1 percent from other sources; and only 32.4 percent from government subsidies. This substantial degree of internal financing meant that local TFAs had some voice in what kind of extension activities were supported and that TFA officials could be held accountable by the membership for services performed, enhancing the incentives for efficiency. de Lasson’s report (1976:255) indicates that this autonomy resulted in rural development initiatives in both farming and non-farming activities.

The ability of local level FAs to become involved in a range of non-agricultural development activities (see Ranis and Stewart 1993) was absent in the NACF system. In fact, to the extent that the NACF guidance bureaux were involved at all in rural development promotion, they were enlisted by the MAFF and the Ministry of Home Affairs to help implement high



profile national projects such as the Tongil high yield variety diffusion effort (see Burmeister 1988) and various village improvement schemes implemented as part of the later vintage Saemaul rural development initiative (see Brandt and Lee 1979), both of which were unpopular with many farmer-members. NACF's participation as an implementation agent in these national mobilisation campaigns indeed damaged its credibility as a farmer-member-oriented organisation responsive to member needs and preferences.

## **VI. Conclusions**

We should start by emphasising that both countries had very good agricultural performance, and in both countries one reason for this was the effectiveness of their FOs. However, Taiwanese agricultural performance was somewhat better than that of Korea, and its rural development appears to have been more equitable. While both FOs were primarily organised in a hierarchical P/C fashion, in this chapter we have pointed to a number of organisational and other differences that led to the Taiwanese FAs having more COOP elements than the Korean NACF. This, along with other differences, may account for the better performance of Taiwanese agriculture and also contributed to the undoubted greater success of Taiwan's rural non-agricultural activities.

The co-production literature (see Evans 1996) provides ideas that help us theorise about linkages between group behaviour, parastatal organisational structures and organisational performance. The external macro-political environment in post-WWII Korea and Taiwan, coupled with the ability to build on the rural organisational infrastructure left over from the Japanese colonial period, elicited a parastatal organisational response to agricultural service needs in the two countries. This political economy environment systematically infused the P/C

mode of group operation into the FA and NACF systems, especially with regard to strategic business activities “entrusted” to the FOs by the two central governments. A co-production synergy was established between the state, the FOs, and their farmer-members, as state agents had the power to mobilise resources that enhanced FO organisational effectiveness, e.g., the state was able to secure supplies of needed agro-inputs and credit valued by FO farmer-members, while the FOs had the dense organisational infrastructure needed to deliver these strategic inputs to millions of minifarm households, many of which had been economically empowered by the post-war land reforms. This relationship was based on resource complementarities between state agencies and the FOs. The P/C mode of operation was instrumental in establishing this complementarity through vertical coordination relations between state agencies and the FO delivery system.

But complementarity is only one half of the co-production synergy equation conceptualised by Evans (1996). The other essential component is social embeddedness. That is, co-production synergy also requires notions of shared projects between parastatal (or other state-fostered) organisations and a recipient clientele or membership group. In the context of FO operations, to the extent that FO staff and farmer-members seem to be part of the same local society, are perceived as social equals, and feel comfortable working together to achieve common goals, we can speak of socially embedded relations between them. Embeddedness promotes more efficient service provision by facilitating horizontal information flows within the organisation, by providing a degree of voice to the membership or clientele, and by promoting ideas among the membership about their right to monitor performance.

The major difference between FA and NACF organisational effectiveness resided in the greater degree of embeddedness that characterised the FA system, making the FA’s co-

production synergy relationships more robust than those of the NACF. In group behavioural terms, greater embeddedness within the FA system elicited stronger COOP modes of group operation and greater efficiency. This meant that the operational rigidities associated with P/C organisational attributes were modified in more flexible and responsive directions. As indicated earlier, both the macro-political economy environment and the external policy environment were responsible for this organisational difference.

As a cautionary postlude, we must reiterate that our study encompasses an earlier period (1960-1980) of FA and NACF institutional history, focusing largely on an era when agriculture was still the dominant sector in both economies. Given the different problems agriculture now faces in both countries (see Bain 1993; Burmeister 1992; Davison 1993), it might be argued that neither FO has been especially effective in facilitating farmer-member adjustment to the drastic decline in the relative role of the agricultural sector, to rapid domestic development, and to a globalising world economy. Bain (1993) and Davison (1993) describe a mostly negative FA metamorphosis characterised by increased factional politicisation and rent-seeking, as agriculture is increasingly subsidised instead of taxed. Burmeister (1999) sees positive changes afoot in the contemporary NACF, with an increasingly responsive organisation sensitive to farmer-member concerns about the future of Korean agriculture. The assessment of how the Taiwanese and Korean FOs have dealt with agricultural adjustment issues in the 1980s and 1990s requires another analysis. Our comparative study remains, we believe, however, highly relevant to developing countries at earlier stages of development.

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