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RECONSIDERATION OF REGIONAL DEVELOPMENT PLANNING  
OF NONMETROPOLITAN AREAS:

New Principles Derived from the Successes  
of the Korean New Community Movement

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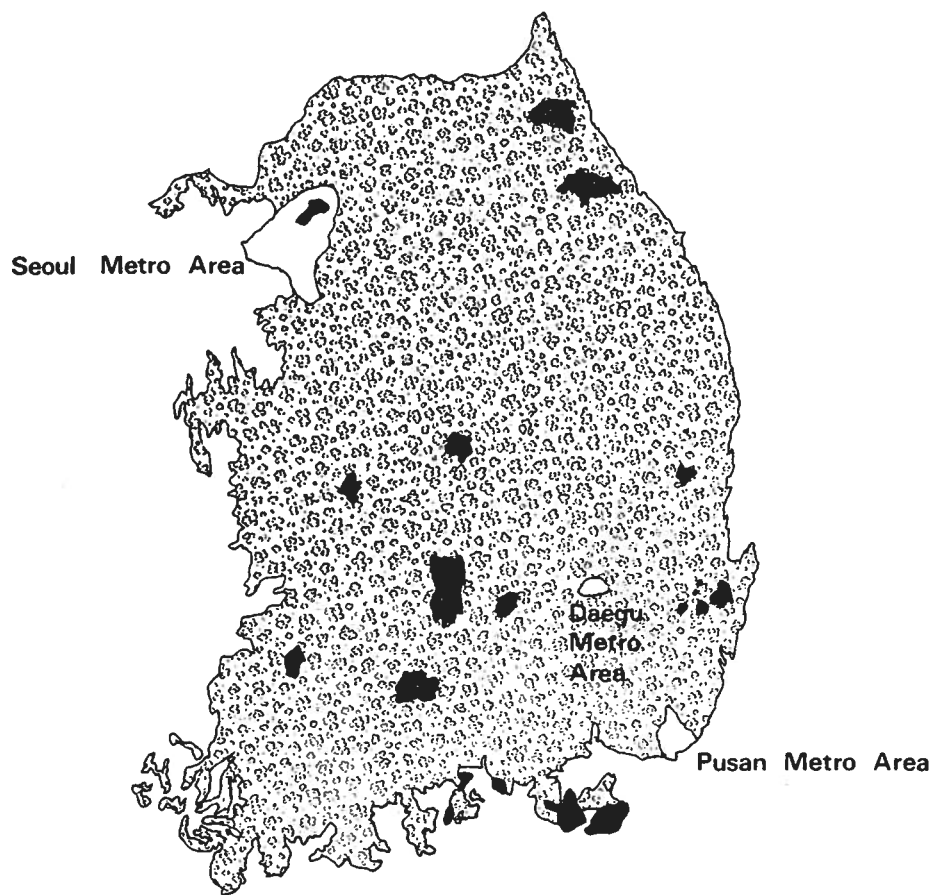
## ABSTRACT

Korean policy has rewarded communities for diligence and achievement by offering grants that expedited self-help. Concerns about equity were met first by mounting a comprehensive program that made opportunities available to all villages and later by diversifying the kinds of assistance provided. Household income soon reached the urban average, and has since maintained a rough equilibrium with it.

The techniques they evolved and innovated have been generalized so as to be more applicable to other Asian and African countries. For example, women's small enterprises seem to be associated with motivation to reduce fertility and can be stimulated by multipurpose women's clubs. Momentum, a feeling of collective movement, must be built up and maintained in the overall program. Background conditions can be adjusted to assure "positive sum" competition. After a successful start has been made, planners are forced to consider the possible "stable state" of a nonmetropolitan sector that adapts to plans prepared for the development of the pacemaking metropolitan sector. Various aspects of the "informal economy" and "parallel markets" are taken into account.

## NOTE

I am grateful to Dean Kwon, Tai-Joon, members of the Institute of Cultural Affairs in Seoul, and many Korean colleagues, for help in this attempt to discover advances in theory and practice. This version remains unwieldy because I have tried to address all the novel contributions in a way that can be understood by Koreans, their visitors from the outside, and those who have not yet seen for themselves. Now it is necessary to find out what can be safely omitted.



Dark Patches are  
Natural Parks not  
under Cultivation

# RURAL SOUTH KOREA

## RECONSIDERATION OF REGIONAL DEVELOPMENTAL PLANNING FOR NONMETROPOLITAN AREAS:

### New Principles Derived from the Successes of the Korean New Community Movement

More than a decade ago a number of us who were fortunate to make contact with the countries of East Asia encountered an inventiveness in developmental planning found nowhere else in the world. William L. C. Wheaton discovered a set of strategies for an urban political economy that yielded growth without benefit of hinterland and disclosed it in his "Parable of Singkong."<sup>1</sup> Terry McGee led a coterie of urban geographers into the search for clues to the extraordinary vigor of the informal sector in East Asia.<sup>2,3</sup> John Friedmann was inspired to propose his theory for agropolitan development.<sup>4</sup> I undertook several ecological assessments of growth processes in the cities.<sup>5,6</sup>

The evidence suggested that new contributions to theory and practice were being invented within the institutional processes and the languages of East Asia. Therefore a challenge existed first in identifying extraordinary bursts of growth and development at a very early stage, discovering what combinations of procedures employed were novel, tracing causes and effects, and finally translating the inferences out of the local contexts into an internationally understood framework. This last step will usually involve making explicit references to the story of an exemplary case, using the kind of language that enables others to gain access to basic ideas. The effort becomes a contribution to the modern theory of planning only after it has reached a communicable form. Note that the task is more complex than the standard process of theorizing from data and contextual information, because several kinds of translation are involved. Nevertheless the extraordinary successes of the last decade in this part of the world suggest strongly that nuggets of knowledge now exist in East Asia that could be very useful elsewhere--if they could be extracted and shaped to fit contemporary discourse.

It is not easy to challenge the orthodoxies of the West, because they are also taught in the Orient and almost always in a more dogmatic form. Thus there will be old-fashioned Keynesian, neoclassical, neo-Marxist, structural-functional, and other familiar explanations for what is happening in these countries. Standard categories will be strained so as to obtain a fit with currently accepted models and thus "explain" the observed outcomes. These exercises are not satisfying because they do not tell us why "economic miracles" are happening in this part of the world, where they should be least expected because of the low natural resource endowments, but do not seem to be happening 95-99% of the time elsewhere.

A classical explanation for accelerated development reduces to "a high propensity for saving." The institutions for mobilizing savings remain crude, however, and motives for saving reported in the households and small firms do not appear to be different from other societies that experience moderate or low rates of saving. Each East Asian society abounds with stories of spendthrifts, conspicuous consumption, miserliness, and waste, as well as prudent thrift. Why do the proportions in Korea differ from those existing

elsewhere?

The South Korean society has often been the pacemaker on the economic indicators page of the Far East Economic Review; its average rate of growth has been on the order of 8-9% per annum over a period of more than fifteen years.

As elsewhere, the metropolises powered the "takeoff," with Seoul becoming the outstanding "engine of growth."<sup>7</sup> In the course of that advance the countryside was stripped of capital and talent. Western advisors recommended that a sizable portion of the gains be funnelled back into the rural areas so as to achieve both equity and a stabilization of the rural economy. They suggested that migration could be stemmed by improving the level of the services in the villages, making them more comparable with conditions available to working people in the cities. This meant investing in schools, roads, electrification, telecommunications, and clinics (enough to back up the high-priority family-planning programs), but not housing, because it was "well known" that the rate of return from public investment in housing was low.

By the late 1960s, however, it was possible to find a few of Korea's 36,000 villages that had already experienced each of these "treatments" in the form of pilot projects or as unplanned impacts of major schemes. What was their response? Spot checks revealed that they behaved very rationally, given their circumstances, but the consequences were not what advisors had expected.

For example, to make sense the transport needed to be improved by building roads from the main intermetropolitan trunk routes through market towns to reach the respective villages, whereupon the residents promptly bought tickets to urban markets where the range of choice was greater. Thus local merchants were forced to migrate to the cities to serve the customers they knew. Schools educated the young to expect jobs that were not available in the villages, so the new graduates moved en masse to the city. Electrification caused the household savings to be committed to the cash purchase of television sets; the programs may have had a modernizing impact, but this outcome did not seem to be immediately productive. The clinic brought about a switch from local homeopathic remedies to expensive pharmaceuticals, together with referrals to city hospitals. Productivity was not noticeably improved.

Thus a large-scale implementation of the recommended methods of intervention would have brought about accelerated migration, and in many ways would have worsened the disparity between city and countryside, since the transfer of capital and talent would have been further exacerbated. In the late 1960s President Park led two large-scale integrated attempts to stimulate development in the rural areas, aiming to get enhanced production by strategically introducing modern services but he failed each time.

In 1971 he tried again by launching the countrywide Sae Maul Undong--New Community Movement. This program improvized and standardized as it expanded its range of activities. It collected a vast amount of statistics, only a part of which could be considered to be reliable; they suggested that local redirections of effort were very substantial. Within a decade well over half of all rural households have been spurred into action. Overall, rural people no earn as much as they could expect from work in the city, where relatively full employment has been achieved very recently. At the same time the

qualities of rural life have been strikingly enhanced with the aid of both familiar and unfamiliar community development techniques. How were the disintegrative forces of fast-paced industrialization and unbalanced urban services, which in Korea were as severe as any in the world over this period, mitigated and reversed so that a remarkably balanced overall development was achieved? The strategy and method invented over this decade appear to be Korea's most extraordinary contribution to the theory and practice of regional developmental planning.

The Sae Maul Undong was assessed and compared internationally by a panel of experts when it was at the five-year mark (1976). Already at that time the contrast was striking. The reviewers struggled to report positive achievements from programs in Mexico, India, and Tanzania,, all of which had been widely heralded as innovative and worth imitating, but the analysts of the Korean program felt forced to talk it down by arguing that perhaps a considerable amount of the progress observed would have been made if no program at all had been launched.<sup>8</sup> Remarkable advances were evident to the villagers in general, to participants in community projects, to Government appraisers,, and to external evaluators; each of them supplied his own rationale for the improvements felt or observed. Since then the differences between Korea and the remainder of the Third World have widened astonishingly. The constructive change in rural areas is felt by Koreans to be impressive and quite well-balanced, but it is nevertheless subject to much popular criticism; to observers with experience elsewhere it is little short of miraculous.

#### What Is It?

The Sae Maul Undong began as the consensus of a half hundred or so experienced people who had been working on improvements in the rural areas; their common perceptions crystallized into a tentative program. Many had read textbooks, and all had listened to lectures on community development as it was understood in America and Scandinavia. By then, however, they felt they knew what approaches were likely to work in Korea, and what techniques would be a waste of time, so they had some scattered ideas about what needed to be done. If there was a central ideology, it did not possess a distinctive label, nor was there any theoretician, the equivalent of Mahatma Gandhi, from whom they could draw inspiration. Leadership came directly from the President, but he stressed speedy dissemination of ideas that seemed to work, eclecticism, environmental improvement, and a "spirit" with nationalistic resonances. Strong pressures existed to feed back information from the field to the program planners fully and promptly. No one could wait for a success to be proven; they were reacting to the earliest indicators.

Thus there was explosive growth, rapid response to local crisis, and increasing complexity; emphases were added or changed almost monthly. The predominant share of the concerns would be familiar to those who have worked in community development elsewhere in the world. That is revealed in the remarkable compendium of analysis and assessment edited by Dr. Man-Gap Lee entitled Toward a New Community Life (1981), published in English and Korean by the Institute of Sae Maul Undong Studies, Seoul National University.<sup>9</sup> There the phenomenon is viewed, and often dissected, by all kinds of specialists in the social sciences and the professions. Curiously, however, there was no report on what it felt like for members of a typical household in an active village. So one is provided here to help define what it is, before

identifying the innovations in theory and practice that I have been able to detect.

What follows is a report upon a fairly typical village eight to nine years after the launching of the Sae Maul Undong, as seen by an outsider who could interact, but not truly belong. The initial conditions of the community were by then virtually irrelevant; villages in this program tend to converge in organized behavior and outward appearance (Figure 1). The outsider's view is presented in the following vignette.

#### Routines of Village Life with the Sae Maul Undong

At 5:45 the loudspeaker blasts out the song:

Dawn bell tolls; new dawn breaks.  
Let us get up, you and me, building Sae Maul.  
My village is a good place for living;  
Let us build with our hands. . . .

Announcements are made: the visit of an official, work groups on projects under way, the family planning truck will arrive (or mother/child health, or BCG, etc.), the weather and its implications, and more. Breakfast at seven for the men is substantial--rice, sometimes mixed with barley, bean sprouts, soup, kim chee, and leftovers. Women eat while clearing it away.

People are at the workplace at 8 a.m., but often they spend an hour reading newspapers and getting prepared. Collective work starts furiously, almost always accompanied by music or song:

By helping each other, by working with sweat,  
Endeavoring for income boost, let us create a rich village.

Then there are pauses. If the work is not urgent, the pauses are long. Again everything stops at the stroke of twelve for a meal of rice with something seasonal added. Concerted effort resumes at one and continues intermittently until five, but people stick around, socializing, finishing minor tasks, finally calling it a day around six. A short period is then available for commuting, prearranged contacts, chores, maintaining social bonds, fulfilling obligations, getting ready for the busy season. In such periods all hands are out replanting rice or harvesting from dawn to dark.

The meal is served in each house between seven and eight; sometimes there will be fish with the rice and vegetables. Almost everyone has a radio, and some have television. The "Moon Village Story" comes on almost universally at 8:35; it must compete, however, with visits and meetings. The village leader must plan out the next steps in the projects, and the effort must be allocated equitably. The heads of households spend as much time negotiating, coordinating, and troubleshooting as on the project itself; the women seem to be doing most of the real work.

The Sae Maul leader takes the initiative in most of these meetings, prodding and coaxing as needed, communicating with officials. Youngish (in his

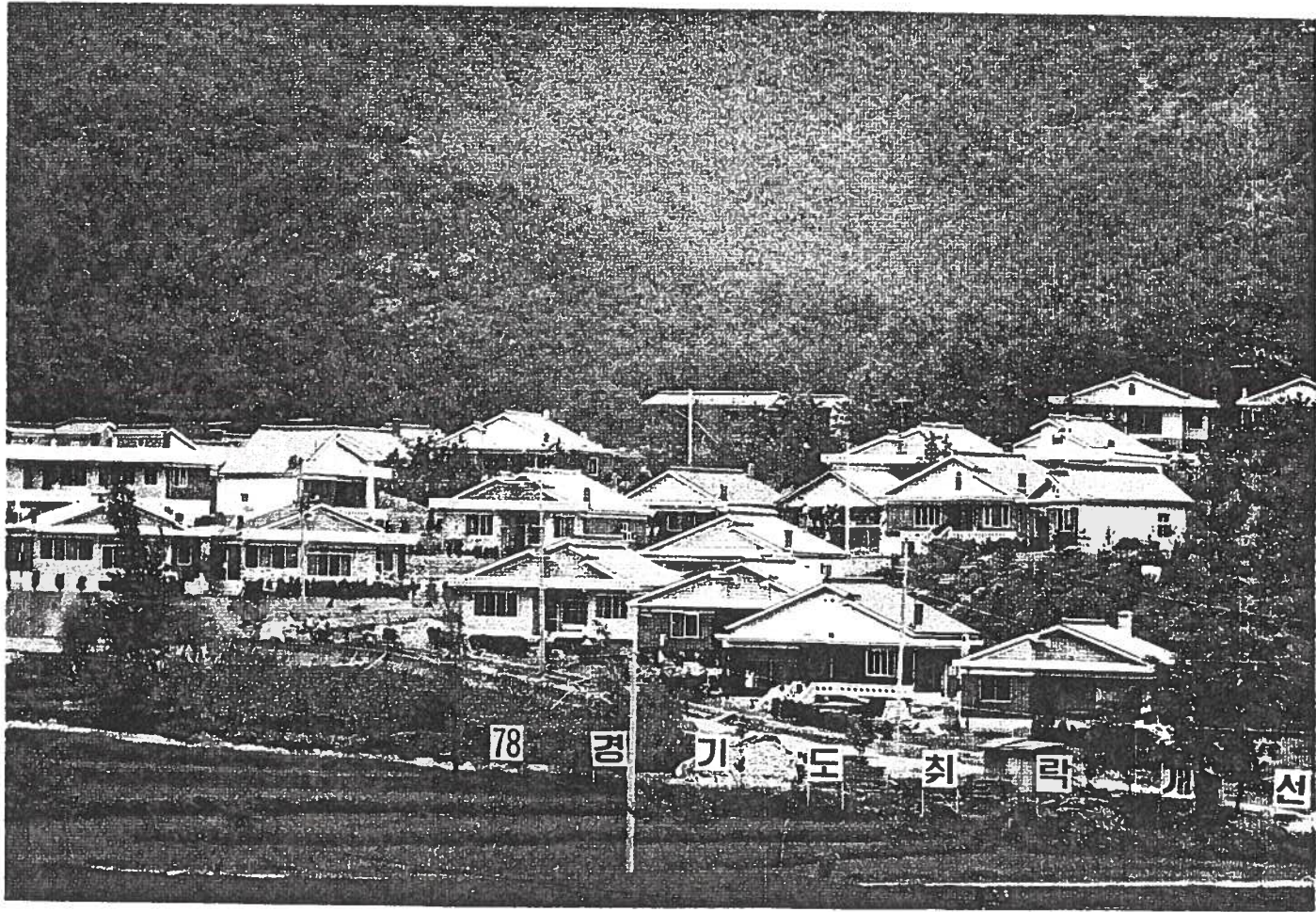


Figure 1

A village developed by Sae Maul Undong processes. It is close to the highway, where image is very important.

thirties or forties), he typically had been a noncom in the military (a few had received commissions), and was not averse to using military-style exhortations, as in the final verse:

We all strongly work while fighting,  
Fight while working; let us build a new fatherland.  
(words and music ascribed to President Park Chung-Hee)

Celebrations are held at the launching of a project, and at its dedication. People hang up road banners, wear special hats and ribbons, plant green pennants, prepare special songs, and sing the choruses with greater enthusiasm on such occasions. Routines are broken also by holidays, homecomings, and tragedies. Losses are experienced quite frequently, but the net gain is felt more, and noticed by others outside the community.

Last words are ruminated, school books are put away, and lights wink out about ten o'clock. The last duty on a cold night is to assure that the vontan (coal briquette) is burning properly and closed against weather, so the floor will be warm all night.

The night watch then takes over, assembling lamps, torches, keys; news of the day is reviewed; the program of the morrow is laid out. The late and small hours are spent with television and talk, with cards and rice wine. At 5:45 they put on the tape of the Sae Maul song. . . .

(Based on an interview with Susanna Samtag, Peace Corps Volunteer in southwest Korea, 1980-1981.)

Many features of this picture of normal life, looked at from inside the household, could not be confirmed from the observations of Western-origin village workers who spent a year almost at the same time in a village about 200 km distant from the one described. They had formed a household of their own that remained in a separate sojourner status. Their bilingual Korean coworkers, however, reported that no incongruities could be detected. These qualities of life are sufficiently appealing to hold 80-90% of the remaining non-metropolitan population against the attractions of cities.

### Fertility Reduction

Every poor country undertaking rural development must give priority to population control. Otherwise the decline in the death rate associated with the improvements in living conditions will add extra mouths that consume all the added output. Since emigration is rarely a feasible long-term solution, this imperative implies that family planning must be more carefully organized than any other program contributing to rural development. This does not mean that it should receive the most publicity, or the most funds, since such decisions are based upon the culture, the social structure, and the history of family-planning attempts in the locale.

Under present conditions in the poorer parts of the world, the welfare contributions of family planning are often fleeting, since a significant improvement in output can be wiped out by the effects of a minor advance in public health that reduces infant mortality.

Births may be reduced, but the surviving age classes are nevertheless enlarged. This should not discourage the authorities, since each birth prevented makes an important contribution (although invisible) to welfare.

The backlash from any prior use of coercion, or public misunderstanding of earlier approaches to family planning, will strongly influence the way in which population planning fits into rural development in its early stages. This is the reason the high points in the chronology of the family planning program preceding the involvement of the Sae Maul Undong were sought out. They are presented in Figure 2; no serious incidents (similar to those experienced in most South Asian countries) were revealed.

The Korean national program in family planning started more than eight years prior to the launching of the Sae Maul Undong, and it had introduced innovations at the myon and village level with marked success. Rural fertility was reduced by 20% in the first six years, although progress subsided to 4% over the following six-years (Figure 3). As the outline of its history suggests, this latter period was devoted to organizing mothers' clubs and conducting trials with oral pills.

The mothers' clubs were brought into the Sae Maul Undong in 1973, when they were reorganized to include younger and older women. The immediate consequence was an extraordinary reduction of 28% in rural fertility within three years, and another 14% in the following three years. Once such major reductions have been achieved, a redirection of effort occurs, so the function of family planning has been transformed to become a key contributor to a future "welfare society" through improvements in public health and socioeconomic conditions, while making possible "happy families"--meaning those without unwanted children.

Assuming that as in Korea the influences of past events are neither strongly negative nor positive, what seems to be the best program for the 1980s in other parts of the Third World? The Sae Maul experience suggests that very high priority be given to multifunctional women's clubs for rural areas. Their meetings must be of immediate economic value to the poorest women, who are often overworked. Somehow they should be rewarded in kind for the allocation of two hours or so away from productive work. Yet subsidies of the meetings should not create a dependency upon gifts from the Government; they should instead signal the transition to a new community order.

A suggestion for startup can be made that is analogous to the initiation of the Sae Maul Undong by delivering bags of cement, which happened then to be in surplus. An incentive for the participating women could be packets of detergent or shampoo retailing at US \$0.35-50. (Many countries are now starting, or adding capacity, to manufacture household detergents, so supplies may be easy.) Since spices are often difficult to obtain, it could also be seed packets for a cooperative spice garden (this idea comes from Central America, where it was highly motivating.) Indeed, at least a half-dozen such effort-saving or productive distributions must be planned in order to assure attendance up to the time a club becomes self-perpetuating.

One of the first tasks is to select a record keeper and assistant or deputy, who would be paid for the costs of their labor when the records are passed up into the bureaucracy. The forms for these records must be kept very

Figure 2. Family Planning Before the Sae Maul Undong  
CHRONOLOGY FOR FAMILY PLANNING

First Five Year Period: 1962-1966

- 1962 Started national family-planning program under the jurisdiction of the Ministry of Health and Social Affairs.
- 1963 Assigned a total of 2,059 family-planning field workers to health centers and subcenters.
- 1964 Assigned the Intra-Uterine Device (IUD) into national program. IP 1965 Mobile teams are used to cover remote areas.
- 1966 Target system adopted for programming family-planning services.

Second Five-Year Period: 1967-1971

- 1967 Established a Five-Year Plan for the period.
- 1968 Organized mothers' clubs throughout the country (168,000).
- 1969 Oral pills introduced into the program.
- 1971 Korean Institute for Family Planning established with assistance of the Swedish International Development Agency.

## Impact of the Formation of Women's Clubs upon Fertility in Korea in the 1970s

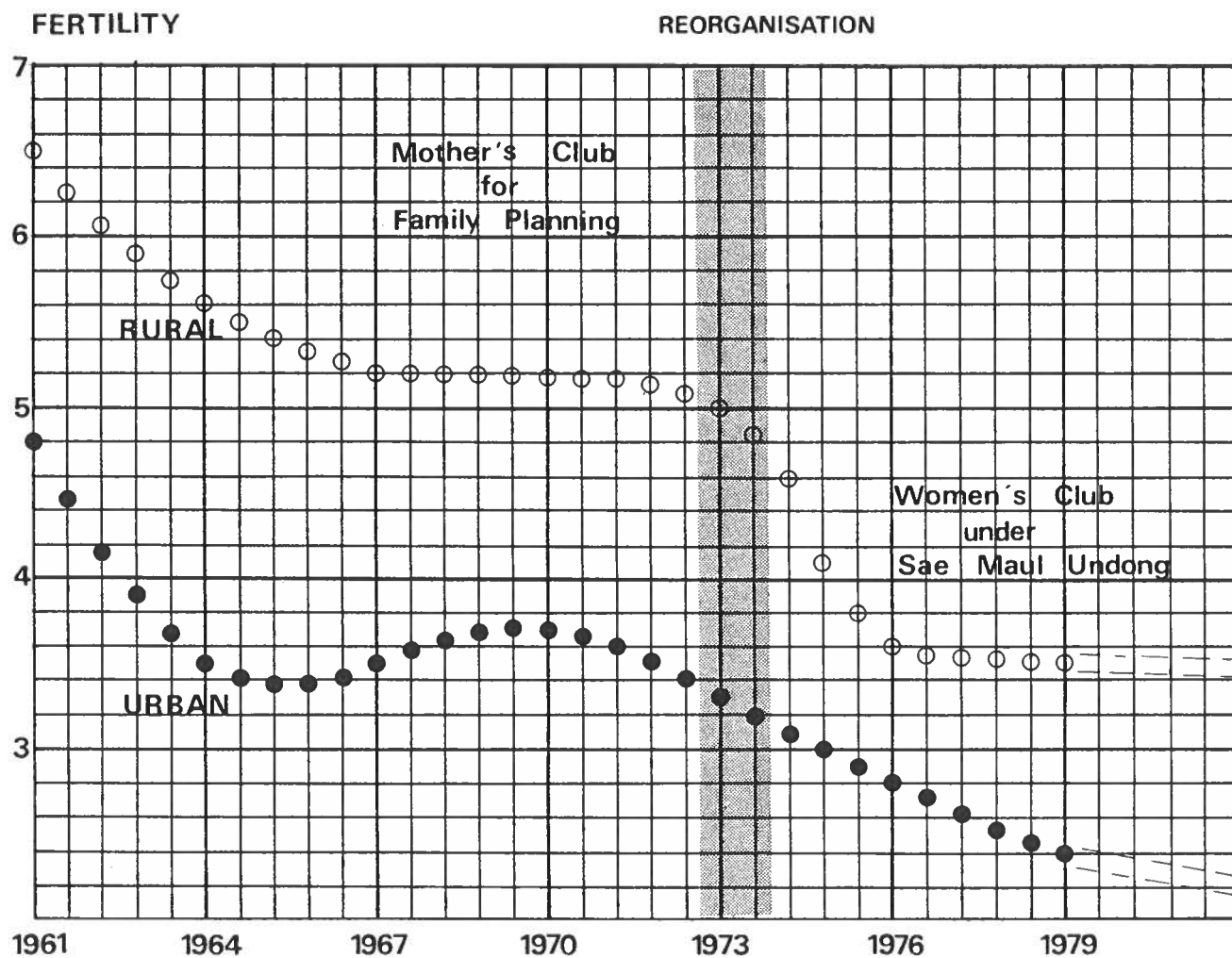


Figure 3

Fertility is reported as the average number of live births per woman over the reproductive span. The data were obtained from the Korea Institute for Family Planning reports for 1980. The consequences for fertility grew out of local optimizations; centralized population planning was not involved in major shifts in policy regarding women's organizations.

simple and easy to aggregate; most of the basic information needed for policy purposes should be obtained through sample survey, not women's records of uneven quality, but the latter should nevertheless remain highly useful for gaining clues to causes underlying the best and the poorest responses to interventions for community improvement.

The principle behind the sponsorship of women's clubs emerges from the functions they have been found to serve well. Every society allocates certain enterprises to the feminine role exclusively, permits a number of others, and forbids some, but the customs change from society to society. The women's clubs are the medium by which all possible avenues for earning by and for women are reinforced and expedited. Members can be encouraged to lay claim to new enterprises and job types imported from the outside. For the mistress of the household an enterprise, or an outside job, becomes an infant substitute.

In this light the usefulness of contraceptives becomes very clear, even before the second pregnancy. Many poor households would prefer the extra income benefit from enterprise, and the behavioral changes required for family planing are not an important hurdle when considered in conjunction with even more demanding behavioral changes required to assure the success of entrepreneurial effort in the immediate future. The significance of fertility reduction for the long-term welfare of the community may be grasped as logic, but it remains abstract; long-range arguments typically have a minor impact upon individual actions deemed to be private. If, however, one can plunge into commitments to job or enterprise without fear of pregnancy, the reward is not deferred, but immediate. The excitement of participation is the first payoff; the money earned maintains the interest of the individuals most concerned, and its expenditure sustains the process.

The emphasis upon record-keeping and enterprise, individual and collective, as activities of women's clubs should eventually produce a significant number of people with managerial expertise. So often in the more sizable projects of rural development, especially those involving cooperatives, the managerial skills are missing. Therefore the creation of these skills in the sphere of women's activities can later accelerate the development of the total community, and sometimes the subdistrict. The organizing and administrative competences of rural women made a huge contribution to the success of the Sae Maul Undong in the second half of its first decade. There are no statistics that can substantiate this assertion; the conclusions are reached from listening to the case histories of sequences of projects, a kind of "clinical" evidence. Experience suggests that three years of participation, with attendance of short courses, should provide a solid base of managerial competence for village- and district-based projects.

Development planners regard fertility control as a fundamental requirement for progress, demanding many indirect preparations and investments. For these they must think in a way that would not occur to the women themselves. What kinds of projects are likely to encourage contraception? How can they be fostered? When such questions are asked, and relevant information assembled, some surprises emerge.

For example, in the Philippines, particularly the large island of Mindanao, the reduction of electricity seemed to lead to a prompt reduction of fertility among rural and town women.<sup>10</sup> Investigation of the apparent causes

revealed that the availability of dependable pumped water eliminated the risk of short droughts and opened up a sizable number of new opportunities of household scale immediately. Women reported that they were too busy to have children. The introduction of television (a "literacy substitute" in the conveying of social information) added to the feeling that time was becoming ever more scarce. A matched district on the island that had not been electrified showed only very modest changes in the same direction.

It should be noted that the most striking drop in Korean rural fertility is also associated with accelerated, subsidized electrification. It should be emphasized, in addition, that the opportunity for electrification and obtaining a television set does not set the stage for reducing the birth rate when taken by itself; the supply of appliances, credit institutions, and interesting, trustworthy programming--to mention a few--must accompany the newly available service.

The impact of the telephone seems not to have been investigated. In some cultures women communicate easily over the telephone and can quickly assemble support networks reaching outside the bounds of the neighborhood. This seems to be less true in Korea, based upon observation and statistical reports upon telephone use, but direct investigation may still reveal a strong reinforcement of women's enterprises. In Japan the telephone is a device that enables very poor people to become self-reliant; the informal sector there is also highly dependent upon the telephone.<sup>11</sup>

Given the existing shortage of telephones in the developing world, these ideas seem quite far-fetched, since it will be many years before the demand in the cities and towns can be met, and installation cost is higher in the countryside. In Korea the experience has been different; careful long-range planning made possible the highest installation rates in the world over the last Five-Year Plan, so the supply has begun to catch up with the demand--fortunately, not at the expense of existing subscribers, since the quality of the service has simultaneously somewhat improved. National defense considerations made it advisable to bring a large share of the villages into the network, and the Sae Maul Undong pressed successfully to have the remainder connected at the same time.

It should be noted that telecommunications technology is currently undergoing a revolution. Korea already makes the microwave relay equipment and has recently announced its capability for manufacturing its own lightweight, high-capacity fiber optic cable. Its electronics industry will be able to produce the new portable telephones more cheaply than the present black-and-white television sets which almost all villagers seem to be able to afford.<sup>12</sup> The impact of such an innovation upon self-organization in rural areas needs to be watched closely over the next several years, because shortcuts in the development process may be revealed.

After identifying the basic innovation and the predisposing conditions that could make a big difference, it is also necessary to conserve the gains. Sources of loss can be discovered by looking around for peripheral factors that are known to have been important recently somewhere else in the world. The following points represent brief responses to the most serious probing questions:

1. What are the costs imposed upon the next generation? As in virtually all rural societies, Korean women work longer hours, often at physically more demanding tasks, than the males in the same household. If they are paid at all, women receive 20-40% less than men per unit of time. When women are pressed, the care of young children is very often assigned to their elder siblings, particularly where families are large. Depressing effects upon health, nutrition, and intellectual development are an almost inevitable consequence. The cost is borne by children that represent excess fertility. When an enterprise is substituted, those children rarely exist.

2. Are there strong values in conflict with this approach? Yes, a majority of women in Korea and many other societies in Asia still feel the need to produce a son, so surplus births result when the first children are girls. Presumably the possession of redistributed land after land reform enhances the demand for a male heir. The practice of adopting infants could theoretically reduce the pressure for added births, but adopted children are regarded as not quite legitimate, especially in rural areas, so the national policy of halting adoptions by overseas foster parents has not reduced surplus fertility noticeably.

After the desired family composition is complete, couples are quite willing to undergo sterilization. Since it is cost-effective, a small subsidy (US \$13, with a low-interest loan enabling the purchase of a cottage or a major farm implement) is offered by the Government. A very large proportion of the farm women (about 40% of those over thirty years) have taken this step, and an increasing share of the males are asking for vasectomies.

3. How do women reallocate their time and attention? What consequences are noted? Part-time jobs added to household and community enterprises cause a marked compression of the time allocated to household chores; substitutions will be readily adopted. For example, the preparation of thatch roofing from rice straw was a wintertime activity, but with the availability of incombustible roofs of tile or asbestos-cement the women and girls could be spared for cash-producing activities. These are now being displaced by more organized and productive collaborations with nearby communities. The critical test for the worthwhileness of a project is its ability to pull the family away from the television set (which is already often left switched on but unattended). The challenge is not too demanding, because almost all programs are addressed to urbanites..

4. Should the women's clubs be induced to organize the community health services as well? Doctors responsible for the delivery of health services to rural communities now realize that they must stimulate community organization. They recognize also that they must prepare for some kinds of prepaid health insurance. In very poor Javanese villages Dr. Cunavon found it was essential to stimulate income-generating projects successfully before the rural households would be willing to prepay basic health services. Many income-generating activities had been instigated by the Sae Maul Undong, so the conditions for launching a health program seemed propitious.

The Medical School of Seoul National University was encouraged to set up experiments in a poor district, using the original Mothers' Clubs as a base. The major difficulties encountered were not with the clubs themselves, but with existing traditions in the regional medical services. The doctors there,

for example, are mostly waiting to take their medical board exams again, or else are avoiding military service, so the motivation is generally low. Dentists, on the other hand, are popular and very effective, but exceedingly scarce. The reasons rural people trust dentists more than doctors are culturally understandable. Perhaps the dentists, with the aid of technicians, should be "barefoot doctors" on the side, so they can refer patients to the appropriate clinic or specialist as a byproduct to their training in the medical sciences. Since villagers' teeth are very neglected, perhaps a beginning health service may start with teeth! Indirect devices like this are offered because in the existing program, after three years of startup preparations, it has been possible to collect only 50% of the prepayments due. Many Korean households are reluctant to pay into the fund; according to the tradition medical assistance is worth the cost only when someone is sick.<sup>13</sup>

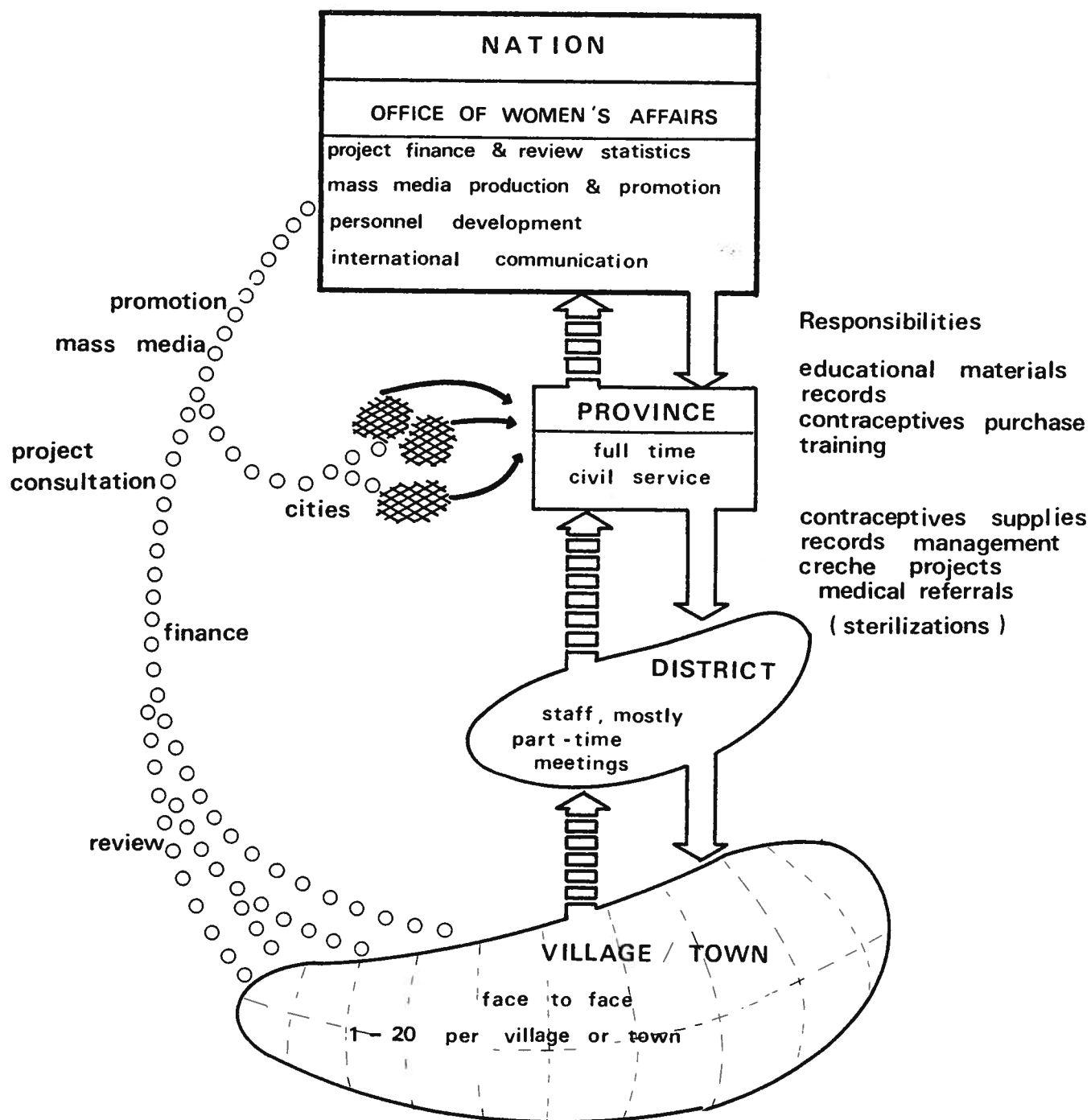
A suggestion was made by the evaluators that the term "insurance" in this instance may have created skepticism. Earlier forms of insurance reaching villagers had given them trouble when collecting benefits. Despite these ambiguous findings, the Korean Government decided to move ahead with a massive program for extending medical services to rural areas during the 1980s. Health planners elsewhere will be interested to observe these future massive experiments. The improvisation in the delivery of health services will resemble experiences in mounting the Sae Maul Undong in its early days.

It is surprising that a partial failure was reported at all, since successes are dwelt upon in official reports, and even academic publications, while failures remain rumors. Usually the scope of failure is known only after there has been an official enquiry intended to find out who was responsible, which is followed by a report. By then the situation has become far too complex to add to knowledge regarding appropriate procedure.

5. What happens in the grey areas of women's welfare that cannot be readily regulated, e.g., broken families, prostitution, abortion, illegitimate births? The quick answer is that the data reveal nothing significant. The rural Korean family has predominantly neo-Confucian roots, which appear to render it ultra-stable. But what appears to be hidden, due to matters of prestige and extra-legality?

One of the objections to depending solely upon official data for planning is that the information is provided in such a form that failures to which blame can be attached cannot be detected. This raises a question regarding what is unreportable with regard to fertility control and medical services in rural communities. What appears to be hidden, due to matters of prestige, uncollectibility (as in the informal sector), and extra-legality?

Abortion, as a contraceptive technique of last resort, is exceedingly important for the success of a family-planning program, yet there are no statistics upon which the program can rely. The Medical Insurance Statistical Yearbook (1981) revealed an abortion rate that is 54% of the normal delivery rate in the compulsorily insured segment of the society in 1980. This population is predominantly industrial and domiciled in metropolitan areas; it therefore has a disproportionate share of single young women. Dean Yang of the Yonsei University Medical School reports that a series of surveys undertaken in Korea during the period of rising acceptance of contraception revealed also a rising rate of abortions.<sup>14</sup> These findings led to the



**Special Concerns  
Regarding Village Improvements**

fuel gathering  
water carrying  
laundry  
nursing infants  
nursing ill people  
marriage celebrations  
gardening  
schools

**Agenda**

child care and nutrition  
midwifery arrangements  
contraceptive supplies  
reproductive records  
special day celebrations  
savings programs  
enterprises using savings  
pilgrimages  
representation at larger meetings

Figure 4

Women's interests and family planning in community development.

liberalization of the Maternal and Child Health Law after a five-year debate in Parliament (1973); it still did not permit "socioeconomic" justification of abortion.

The place of abortion in a fertility reduction program for rural areas appears to be discoverable through survey if women in the reproductive age range are interviewed by trained professionals, but not through Women's Club reports. Therefore almost continuous sample surveys seem to be required to get reliable information on progress in the respective sub-regions. This procedure should also pick up the rate of decline of the traditional procedures for inducing abortion (in Korea these are largely homeopathic). The surveys led to policies which have eroded the effects of the taboos against abortion (but not legitimated it), first in the city, and rather quickly thereafter in the countryside.

#### Momentum

Momentum--movement of the masses--is a precious asset. It makes believers out of doubters and sweeps along the skeptics and laggards. Agrarian inertia is overcome initially through leverage made available by means of two or more major innovations. Each should yield 30 to 50 percent more product from a new mix of inputs and also produce more discipline. A second crop, a high-yield strain of seeds, or a new energy source are typical examples.

The apparatus for disseminating management advice about agricultural improvements has by now been installed in virtually every country. It has at least been assembled for the export crops, but in most places the agricultural extension services have become deeply involved in rationalizing the production of the dietary staples as well. Its staff already knows how to pass along advice, assess credit needs, call in transport, store commodities safely, package them, and market the output. Many nations are even equipped to carry out research on the pests that plague agricultural production. Technological assistance for farmers usually has a strong governmental component, but in some places the burden is carried by private-sector specialists or foreign groups. The existence of this technically competent infrastructure is a necessary prerequisite to the Korean formula for rural development, but it need not be completely elaborated throughout the countryside in the beginning. Programs for its expansion can become a contribution to momentum.

The presence of unexpended surplus allows the villages to consider the backlog of tasks they know ought to be done, but until that moment they felt unable to assemble the collective effort required. This body of projects usually reduces the overhead of human effort needed to keep going, but some diminish the likelihood of being overwhelmed by disaster. The range of alternatives is briefly considered, priorities are set, a schedule is prepared, work is allocated, the jobs are finished, and a record of achievement is established. In the process larger transformations can be suggested, both from within the community and from the district office.

This is a stage where talk has been converted into unsteady movement within some villages, but the district office begins to see the need to schedule the time of its people more closely, because several projects are competing for attention. Momentum is sensed first at the district level, and the feeling that things are beginning to move spreads from there down to some

ambitious communities, and up to the provincial offices.

It is there that neighbors are willing to look after a volunteer's family while he goes off to acquire an essential bit of experience or skill. He brings back his own stories of achievements elsewhere, bearing out reports from newsletters and the radio. Thus the flags symbolizing work in progress should become ever more common. Dedications of completed projects should involve some visitors from communities with parallel projects under discussion or in process. The celebrations should be used as springboards for longer leaps that bring the modern era into view. The talk must keep progressing to encompass new possibilities; it should not be allowed to return to old rivalries and insults.

Politicians insist upon dividing up the available support, doling it out here and there to swing marginal districts to their cliques, or to implement compromises hammered out in committee. Economists like to choose the projects that prove to be the most cost-effective. Welfare workers want to funnel support to the neediest. Civil servants prefer those with the least risk. Each is right to some degree, but they all tend to overlook the importance of momentum.

Once momentum is felt, people are persuaded to assign their invisible resources (obligations to be repaid, hidden hoards, skills, social networks, etc.) to reinforcing situations. A kind of self-fulfilling prophecy results: belief in forward progress becomes less spasmodic. The opposite situation--the self-denying prophecy--occurs often in the case of speculation; competitive bidding for land can raise prices to the point that many projects are rendered uneconomic. Planners must look for the accelerators and avoid inadvertent self-braking.

Efforts should be clustered in space where it is at all possible, at least in the beginning; supporting staff should have an opportunity to make quick responses. Work should not be allowed to halt due to delays by officials; nothing detracts from momentum more than inattention. As time goes on, a team of village aides should be able to handle more and more villages, because the projects themselves tend to improve access and communications. Indeed, there are many reasons for defining "the community" to be a cluster or string of hamlet-sized villages, because a wider range of projects can be undertaken. The feeling of momentum tends to be enhanced whenever spillover effects to neighboring settlements are substantial (Figure 5).

Here we encounter a conflict with an important device for getting started. A common technique for building solidarity and loyalty to the community is to assemble information on the common origins of the residents, with stories of local heroes and participations in the great changes that have occurred in the society as a whole. These community histories often strongly enhance the "we-they" separation between neighboring settlements, and inhibit slowly increasing collaboration between communities that ought to be clustered.

Foresight suggests that such histories should emphasize the origins of ties with other communities, towns, and urban neighborhoods, because these historic connections may be renewed in some fashion and become an asset. The larger, more complex projects need all the background of inter-community

## MOMENTUM

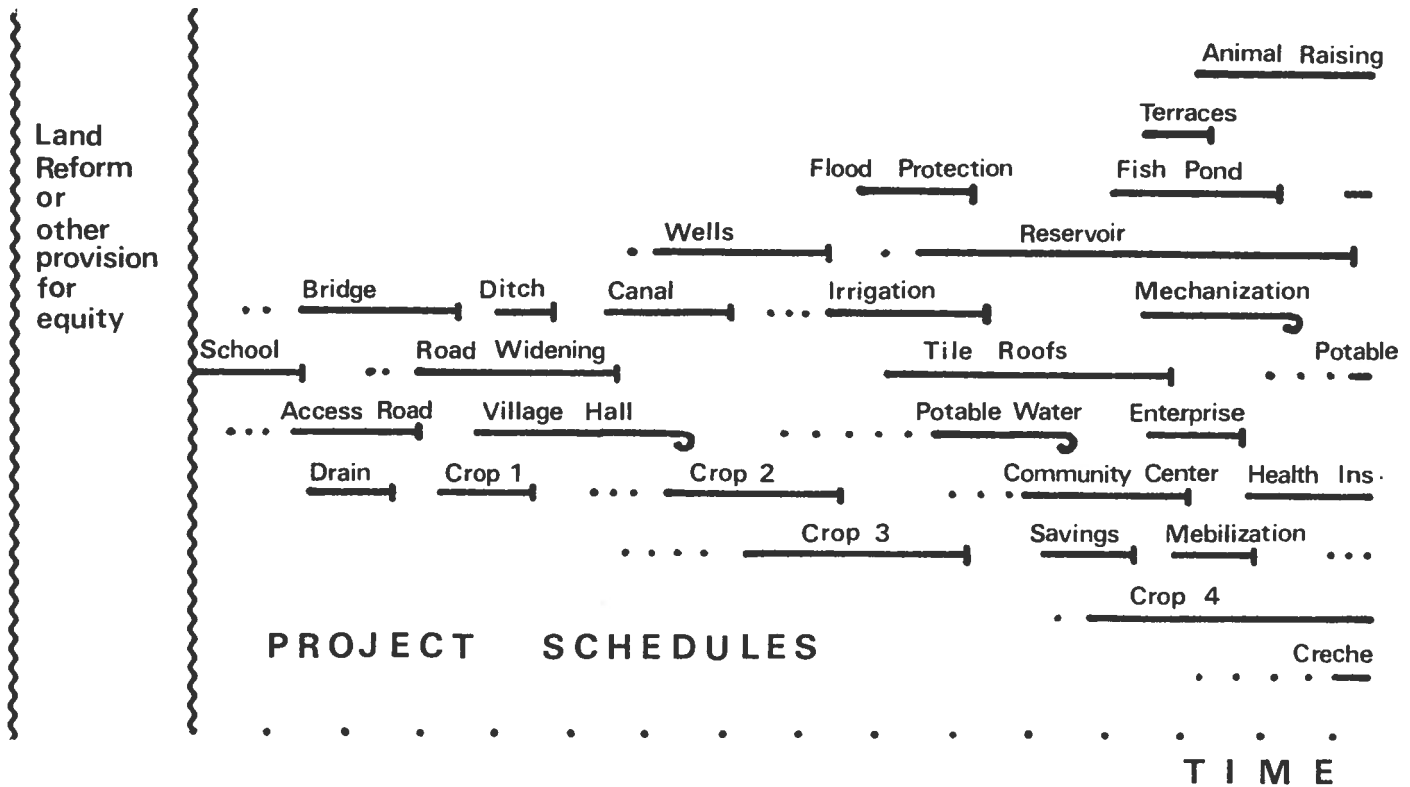


Figure 5

More and more things happening at the same time; an increasing number of opportunities appearing on the horizon. The successes accumulate; the failures are buried. Both contribute valuable experience.

cooperation available to overcome the swarms of difficulties and add to momentum.

This is not the "big push" idealized in some early strategic developmental planning, because it does not promote symbols of national achievement like steel mills, airports and airlines, big dams and power plants. Community development is not intended to produce a "takeoff" in overall economic development, although it would help prepare for it, or sustain it, by laying down a solid base for food security and equity in the form of a self-reliant, productive countryside.

Training the staff and leadership for community development frequently resorts to flagwaving, appeals to patriotism, and other manipulation of national symbols. The purpose is to remind participants of their higher loyalties, replacing thoughts of duty to kinfolk, factions, and ethnic or religious communities. Nonmetropolitan planners must treat these emotion-laden techniques gingerly, because employment of patriotic images for the mobilization of the masses is one of the means for creating a fascistic state; a runaway momentum may take hold.

The Koreans used some flagwaving in their efforts to build up momentum, but they mainly resorted to a litany of true struggles against adversity leading to evident success. A training center for the community leaders was founded near the agricultural university. The content of its lessons was completely positive. Once the tone had been established, the new village leaders were joined by bureaucrats, journalists, a few professors, and even top officials from other ministries were invited to attend (reinforced by urgings of the President). Once there, they were greatly moved by the authenticity and sincerity of the personal testimonies of village leaders, so they frequently agreed to do their best to overcome bureaucratic barriers; in particular, they would see that their own agencies would share in the achievements by designing special projects based upon the expertise in offices under their control.

In retrospect, designers of the Korean training program believe they overdid the emphasis upon the positive. A two-week training course should contain at least one or two examples of carefully analyzed failures. The participating leaders would then learn how to cope with misfortune; the sobering effect might save situations where optimism overrode caution. Once progress has become very apparent, the original suspicion and cynicism of the rural people has been displaced by a mood that is often too buoyant.

Momentum requires careful planning for the short to middle run. Personnel must know what they are expected to do, and the project prototypes must be accessible. The required materials must be obtainable, and the technical advice lined up. If unforeseen events occur, an alternative use of people's time and resources should be ready.

Korean workers have earned a worldwide reputation in contract construction for completion of projects on schedule under difficult conditions, and the Sae Maul Undong seems to have depended heavily upon this self-image. They had to rely for technical advice, however, from hastily trained agricultural extension agents just out of school, so the farmers (often rightfully) decided in most instances to depend upon local experience. The planning therefore had to be of the kind that allowed for improvisation.

Planning conserves momentum, but "creative opportunism" generates the force that augments it. Curiously, this term, when translated into Korean, contains the implication of deviancy from traditional norms, and is therefore not ordinarily acceptable. Parallel experiences are expected in other agrarian societies. Suspicion is allayed if a group grasps opportunities to be creative. This flair for group problem-solving arises out of confidence bred by prior success. Climbers depend upon it as they find new routes for ascension (Figure 6).

The movement of masses of nonmetropolitan peoples in the Korean manner presupposes land reforms. In other places, however, land reform may be too costly, due to the civil disorder created. Then a means of assuring equitable distribution of public goods and services and incentives for the long-term investment of labor must be invented. Just as land reform is a political act involving every level of government, the alternatives are exceedingly complicated politically. These fundamental reforms create some of the guiding principles and precedents for the choice of projects in the community development program that follows. Too often people have been disappointed by the fact that rural development does not automatically flow from land reform and tenure rationalization; a program that builds momentum must be superimposed, if the real potentials are to be experienced.

#### Comprehensiveness

When private agencies or universities become involved in community development, the limits of financial resources and manpower are so obvious that they are expected to engage in "pilot" or "demonstration" projects in a few villages at best. When a government undertakes a new program, however, it must administer with an even hand. It must have a comprehensive program from the start. Anything less than that would be judged as a despicable favoritism, and would have widespread political repercussions. Communities can become quite vociferous, even violent, if they feel they have been treated as stepchildren; repeated lack of attention often leads to outright rebellion, originally covert but frequently breaking out into the open.

Often comprehensive coverage of the rural areas is a gesture on the part of the national or state government. It offers to start a joint contribution process such as this: If a village provides the land, the higher level of government promises that it will make a contribution to schools, clinics, housing for the landless, etc. The village is reluctant to go to such trouble unless it trusts some politically powerful person who can assure them that the state will act upon its promise. (In their experience the state has always been subject to a series of incomprehensible delays.) This testing process automatically reduces the number of replying villages to a few percent of the total, and many of these will later be split by feuds, or otherwise disqualified, so that a magnificent piece of legislation--from the point of view of social and economic development principles--results in only a few localized advances. The state had never really readied itself for a comprehensive effort, so either the lower-level administrators who were favorably inclined are forced to set up elimination contests and other additional hurdles to reduce the program to a manageable load.

The Koreans found a novel way to deal with comprehensiveness and evenhandedness. They delivered 335 bags of surplus cement to

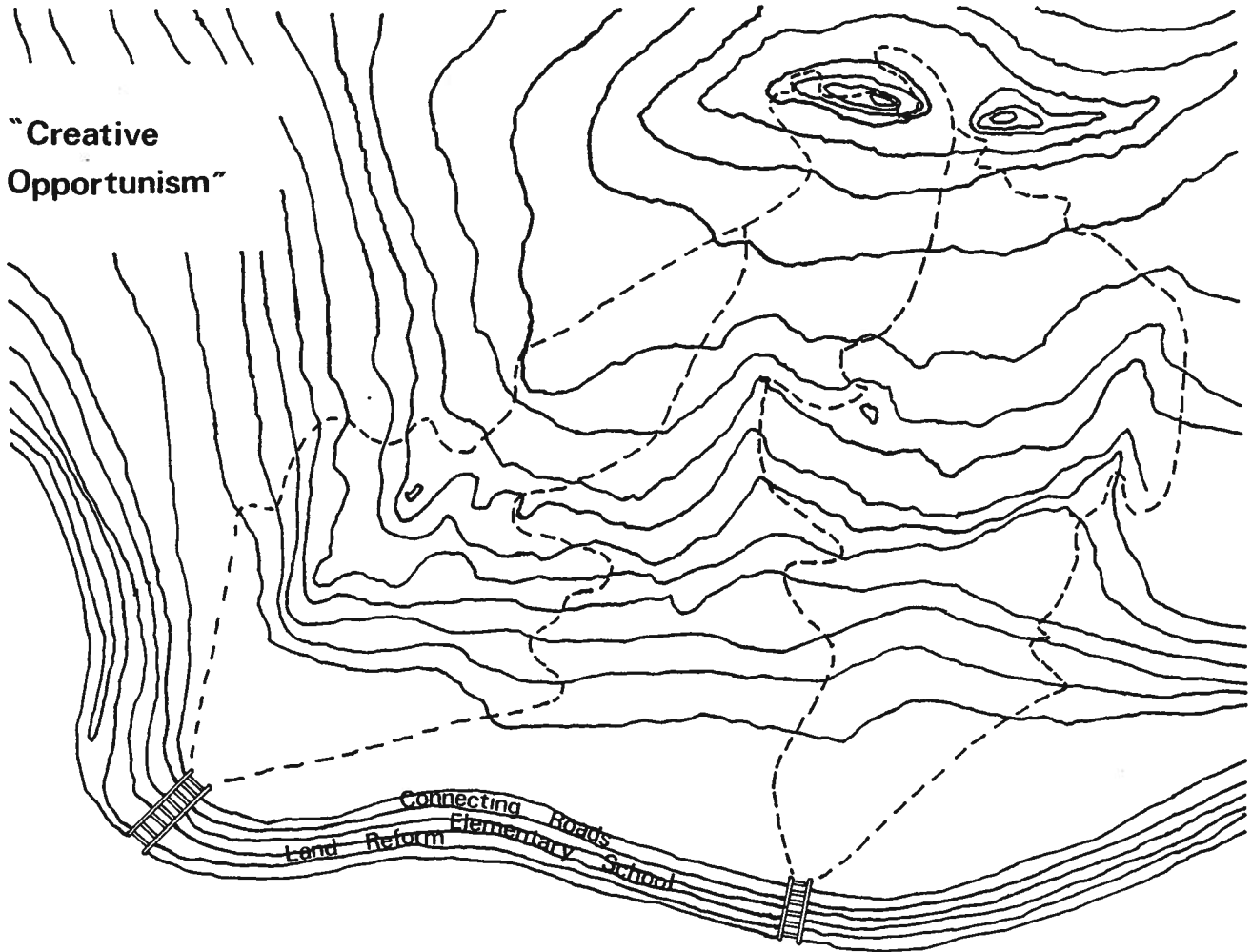


Figure 6

Ascending the Mountain of Development. At each vantage point the community chooses the way that looks best, but always in a general upward direction. Only after much progress is made will the specific approach to the peak (i.e., the best possible use of resources) be considered. The meaning of survival in the vicinity of the peak is taken up later when assessing goals.

all 33,600 villages, and said that someone would come around to check on how they agreed to use it. That report was made by the regular district office, in order to involve these lowest-level (and least motivated) bureaucrats in the sequels. The special administrative organization (sae maul undong) was fashioned in the interim (about one person per 10,000 rural dwellers, but they were amplified by the regular bureaucracy). Those communities that managed to convert cement into infrastructure would be given more, and also scarce reinforcing rod to go with it, so that more complicated structures were possible. About half the villages qualified on this first round.

During the first several years the villages that achieved were rewarded with new opportunities, and quite a few villages moved from success to success, creating centers of relative opulence in a densely packed countryside that started almost uniformly poor. By resolving clan rivalries, changing leaders, taking short courses, or concentrating upon the women's clubs, many of the lagging villages started catching up. The process was graded, and a special celebration was held at the time a village was moved up a grade. There was some question at the time among the experts as to whether the grade, which was based upon qualitative factors such as "spirit" (best translated as "we-ness"), as well as achievements of varying dimensions, was meaningful. Nevertheless, quantitative sample surveys undertaken five years later showed that the "self-supporting" or "progressive" communities generated 12% more income than the "self-helping" or partially cooperating communities, and they in turn were as much ahead of the resistant or "basic" villages. The latter, however, had made very substantial progress in the interim by devoting individual or other collective (e.g., church) efforts to productive opportunities.<sup>15</sup> The dynamics of such growth outside the program was not commented upon by Government workers, but Vincent Brandt argued, without putting forward any extra evidence, that the Sae Maul Undong was really responsible for only about a third of the growth in income, and that the remainder was due to urban-led economic growth that spilled over into the rural areas combined with an extraordinary cooperation within the bureaucracy.<sup>16</sup>

The administration of a comprehensive development program over a territory requires the construction of a hierarchy. It must be a much more flexible hierarchy, however, than the military form that is often used as a model, because it must map upon inhomogeneous districts and must be very open to innovation. A diagram of the relationships (Figure 7) seems much too static as compared to reality. Verbal and pictorial descriptions based upon participation are needed to convey the true hierarchical structure, but they require too much detail to be presented here. This brief outline will proceed from the top to the bottom:

Chief Executive. Development of the rural regions must obtain at least intermittent attention at the top. The general goals, philosophy, and style are established there. In Korea President Park allocated one day a month to detailed review of programs and possibilities; this was in addition to the times when specific issues and natural catastrophes were taken up. His successor, President Chun, found that it was easier to modify a program with momentum than to reorganize a bureaucracy, so the Sae Maul Undong became for him another tool for solving such problems as inflation, export drives, energy crises, urban migration, and many others.

Ministry. The assigned ministry has responsibility for program and

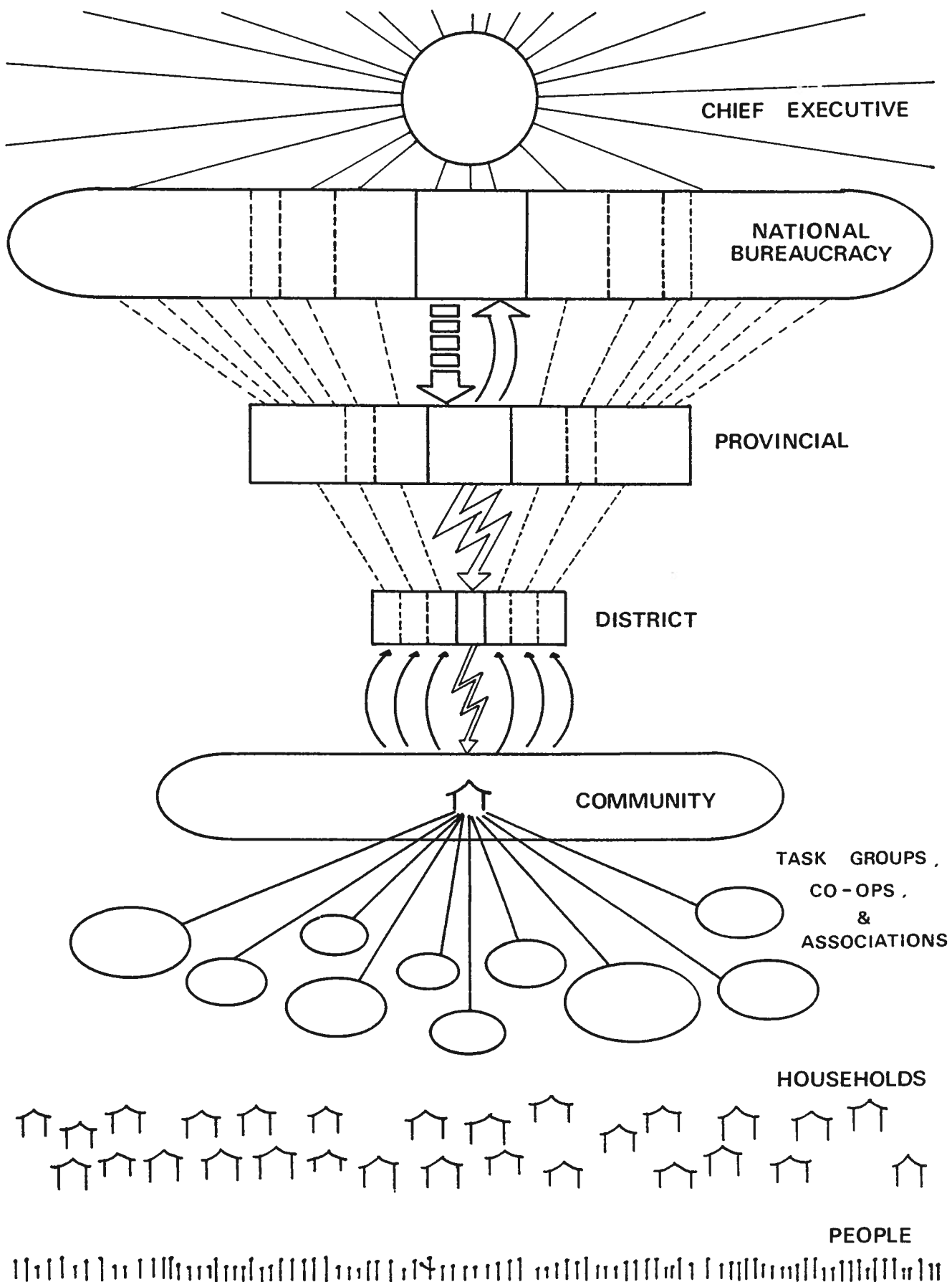


Figure 7

Administrative hierarchy for comprehensive rural community development.

budget preparation, and must coordinate the inputs of other ministries, such as agriculture and transport, at the national level. In Korea this was the Ministry of Home Affairs. Although it had other challenging assignments, such as the creation of an Office of the Environment, the Sae Maul Undong was its major concern over the course of a decade, and its outstanding administrative achievement. In times of rapid change the Minister needs a good deal of staff work, most of it coordinating with the central staffs of the other ministries. The authority of the Minister, sometimes even of the Prime Minister and the President, is needed to break the bottlenecks in information flow, and in moving supplies to target projects. A comprehensive program must not be blocked by a narrow view regarding working hours, because the policy papers and technical reports will normally be written after closing hours. This is easier in Seoul than in some other capital cities, because the typical working day for a professional bureaucrat in a position of responsibility is ten to eleven hours.

Province. An intermediate level in the hierarchy is often created in large nations such as China, India, Indonesia, Nigeria, and others; often the units are called "states." Each has a cabinet of ministers or officers with portfolios similar to those of the nation. Since they have much smaller budgets with which to work, their strength should depend upon expediting the flow of detailed information. The political allegiance of their executive, if elected, will often deviate from the party or faction dominant in the Center, so bargaining for information and scarce supplies can become intense. But the core programs for population control, for income improvement, and for availability of equivalent opportunity for communities, should not be traded away.

District. This level is primarily managerial; it identifies possible projects, compares their respective requirements and outcomes, and may often decide which of the simpler proposals are worth expediting. Programs and project complexes are initiated at the political levels, but they will require a great deal of elaboration by personnel in the district (or "block," or community cluster) offices. Those societies where politicians insist upon detailed review and approval quickly lose momentum due to the delays involved. Management is expedited by interaction with individual village program leaders, men whom they have selected jointly with the power structure in the community, at least once a week. It will be more often than this at times which are critical for project completion.

Community. A village normally has a meeting place and a headman advised by elders, some of whom are young enough to lead specific task-oriented collective work groups. The development leader is usually found outside this group of traditional leaders; he must be energetic and broadly trusted. He would organize projects so as to fit the patterns of cooperation known to the community, because then the participants will be able to handle the interpersonal relations needed for implementation. (This close matching of early projects to the previously established patterns of inter-household cooperation is believed to be one of the major "secrets" of the Korean Sae Maul Undong; the process was almost always unconscious and is sometimes used as evidence for a "pragmatic outlook."<sup>17</sup> The patterns of cooperation can differ significantly from one sub-culture to its next-door neighbors. Cooperation will then need to be consciously planned.

Households. The strongest institution in a poor agrarian society is the

household based upon near kin, because it is the source of social security. Economists consider it to be the nexus for sharing effort and income and the pooling of capital. Closer inspection shows that many separate accounts are kept, in people's memories if not recorded in family archives, so there are restrictions upon the investment of capital, and unequal portions in the sharing of income. For example, in Korea as well as many other societies where women eat later than men--thus tending to subsist on leftovers--the imbalances and scarcities cause a much higher incidence of malnutrition and anemia among women and girls. Also, in societies where a dowry is customary, a large share of the capital is locked up in the form of jewelry that has only limited convertibility into other forms of property, and can rarely be used for somewhat risky ventures.

People. Among the individuals at the base of the hierarchy, many are disenfranchised for reasons of sex, age, criminal record, mentality, recency of entry, and other characteristics. Thus, at the beginning of a program for planned rural development, only 20-30% of the people are likely to be eligible participants in a "comprehensive" effort. Later, when cities have expanded much more and have generated many new jobs, the young adults will emigrate in large numbers, and large reductions will occur in the proportions of young children a few years later. Then the fraction of the village population participating could rise as high as 60% before it is cut back by retirements.

Virtually all developing countries have by now become bureaucratized. In the process a number of local individuals have learned the technique of "institution building." Usually it is possible to attract a talented younger person to the task of building the civil service hierarchy that fits the constellation of villages and small towns in the countryside. He will tend to issue orders to the folksy low-level administrators, plodding along without hope of advancement to district level, that have the impact of thunderbolts (Figure 7), but eventually a two-way flow of information can be built up and maintained. Realistic adjustments are based upon data from this two-way flow of information--if it remains trustworthy and reasonably comprehensive.

The rest of the world very often deviates strikingly from conditions in Korea in just these information-handling aspects. Koreans have been able to keep the informal (*i.e.*, non-recorded economy as a whole from expanding as rapidly as the formal economy, and agriculture is the sector that has been least affected.<sup>18</sup> Moreover, the simple tabulated statistics have been published with astonishing promptness. Indexes and estimated aggregates are published within a few weeks after a month's end.

People undertaking the informal, extra-legal, or "parallel" transactions either are not expected to pay taxes in a developing society, or manage to evade them with a high frequency of success. Their capital is obtained as savings from earlier profits; it is bolstered by short-term borrowing of "black money." Labor is often recruited from among people who have spare time available after fulfilling the requirements of a regular employment commitment, such as small farming or contract labor. But it may also be obtained from illegal immigrants. Much is marginal, small-scale entrepreneurial activity, such as peddling. These minuscule retailing enterprises are encouraged by the Women's Clubs introduced earlier, and largely financed by the savings sponsored by the Clubs. More of the underground economy is completely illegal; the production of bootleg liquors and outlawed drugs, along

with the smuggling of contraband, are typical examples of working outside the law with prospects of high return to effort.

The parallel economy is a sector that ranges from quite small (in Scandinavia) to embarrassingly large (Italy, USSR, etc.). Thomas Spitznas estimated (on the basis of "excess currency demand" arising from evasion of regular banking channels) that underground transactions make up 20% of New York City's economy, and the share is still growing, while it is about 10% for the rest of the United States.<sup>19</sup>

In Socialist and Communist societies the factories and distribution systems typically operate at 20-50% of capacity, with most of the shortfall ascribed to shortages of supplies, but the family plots of the rural people are managed so as to operate very close to 100% of capacity; their black-market transactions often appear to match the volume of the state retail monopoly. Official food-supply data are therefore completely unreliable and planning becomes ineffective and usually ritualistic.

Korea eliminated most of these sources of statistical inadequacy for following the changes in nonmetropolitan areas. It used police powers and state licensing to prevent illegal production of drugs such as marijuana, ginseng, deer horn, etc. Prices were kept at a level where it did not pay very well to corrupt the overseeing officials. In the control of alcohol, for example, the production of traditional village rice wine was not banned, but its entry into the metropolis was hampered by the distribution of soju, a strong wine made from cheap sweet potato starch, at very low prices. Brewery, winery, and distillery products were taxed only moderately to inhibit smuggling by the large fishery fleet.

Over much of the 1960s and 1970s, foreign exchange controls created a substantial amount of black money, a good share of which was lent for short terms "around the street" around the stock exchange and the central markets. The Korean planners, however, found ways of directing much of this money into high-priority welfare programs, such as housing for the poor.<sup>7</sup> Now that the currency has been floated, the principal source of black money seems to be under-the-table payments in land speculation, which was inhibited by some fairly sophisticated measures. A year of recession, and inability to sell 35-40% of the larger newly constructed apartments, has done even more to reduce the black money supply. The use of some of this black money to corrupt the civil service in payment for special information and an inside track on new opportunities has been blocked by requiring the registration of all property owned by the lineage family. If the money cannot be spent or invested, it is not worth taking.

Korean agricultural statistics nevertheless remain spotty. The district officials responsible for them have few incentives to be accurate, so they often take the lazy man's way out and record imaginary data that seem plausible.

The most authoritative article to date on "integrated rural development policy" is by Dennis Rondinelli.<sup>20</sup> In it he distilled from global experience seven principles that needed to be fitted together before a program is likely to be effective, and he further elaborated upon some of them. It is significant that the Sae Maul leadership discovered each of these principles for

itself, either from wrestling with reality or from being open to suggestions and assistance from the outside, and created measures for addressing them explicitly, well before the article was written. How it was done, and with what success, is revealed in the Research Seminar edited by Man-Gap Lee and in some extensions provided here. But the unusual acceleration achieved by the Sae Maul Undong could be attributed to the discovery of principles not yet in the world literature. To be added would be (8) the creation of significant roles for women in local development that reinforce fertility reduction, (9) Sae Maul paid as much attention to momentum as any veteran campaigner; they induced the disorderly informal sector by indirect means to become a constructive element; (11) they shifted strategy as the program matured so as to take on more complex projects.

### Strategy

A great debate raged during the middle 1970s regarding the manner in which community development whether rural or urban, should be directed from the Nation-State, as presupposed by most socialists and nationalists, or as a consultative "bottom-up" process, as prescribed by a new generation of activists. The latter could point to a long series of costly failures arising from the tunnel vision of national ideology and the clumsiness of the bureaucracy, although they could only identify microsucceeds at best that confirmed the "bottom-up" approach. The climax in the controversy was reached at the United Nations Conference on Human Settlements in Vancouver (1976).

Without entering into the argument, the Koreans had already decided that while both sides were right, for their own society the best mix was predominantly "top-down" in the beginning of the program, but that a number of "bottom-up" initiatives should be initiated, and were to be encouraged, when communities became self-confident. After major improvements (from everybody's point of view) had been registered in most villages, both directions become inadequate, because the needed connections are "lateral." Further development depends heavily upon linkages between communities that go beyond straightforward self-help and collaboration with rich or powerful patrons from the outside.

These characterizations of approach depend significantly upon the standpoint of the observer. Viewing hundreds of project reports in a regional center, he would conclude that a top-down philosophy dominated the Korean program; discussing processes at a village level revealed that the community had to decide which projects should be reshaped to fit local preferences, and were then worth completing. Many Government proposals were too confusing or vague to be useful, but a Government imprimatur on a redesigned project was enormously helpful, in the village and up the hierarchy, so people were quite willing to do more than just "play along" with the people of high rank bringing proposals. Later some projects that used locally available human effort to greatest advantage were generated almost spontaneously by ordinary people (few in the community will remember the proddings and the troubleshooting contributed by consultants).

When it began to be understood that external effects, both good and bad, were going to become important, projects that involved other communities received high priority. A good example is potable water. Its importance to the village almost always fell below that of irrigation water that made a

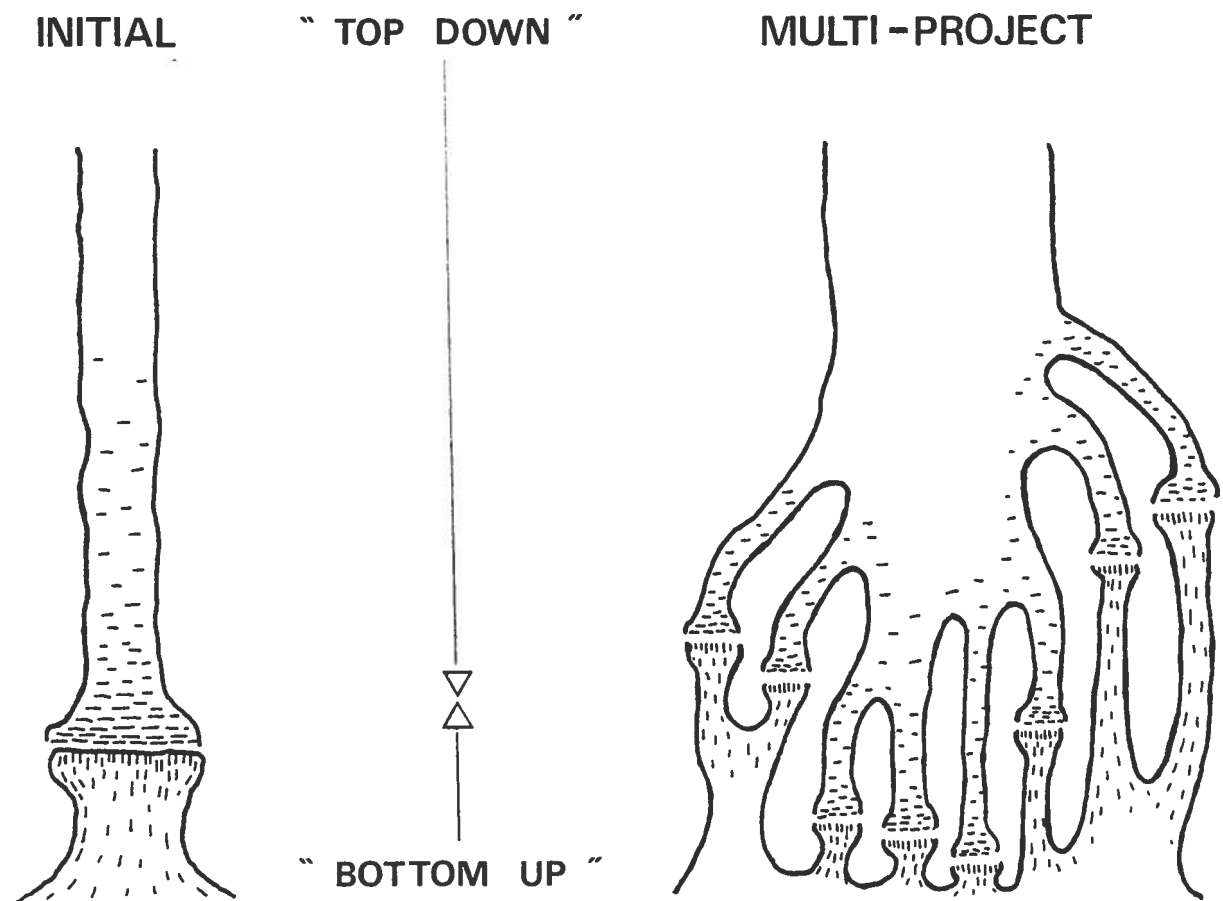


Figure 8

Interface to be expected between a national program for rural development and the self-organization evolving within a single community.

second crop possible. potable water was cheapest for villages at the top of a watershed, so they would very likely have pre-empted the best coffer dam sites by the time communities downstream decided it was time they improved their water supply. Their normal sources from streams and wells had seriously deteriorated because the increasing population of humans and animals added to the erosion of soils at the same time they increased the pollution due to excretion. Quickly it became evident that reservoirs and filtration systems had to be designed to meet the needs of all the communities in the small watershed. Planning must be done in consultation with representatives of the affected communities, and also with the Government agencies in charge of health, water, agriculture, forestry, land-use planning (Korea has a National Physical Plan), and the environment. The lateral connections not only reach out into space, but extend forward in time (into the future) and in function, thus requiring the transfer of tenfold or more information prior to decision (Figure 9).

When this level of complexity is reached, the strategists (regardless of where they are situated in the hierarchy) think of themselves as playing a game, often for quite high stakes. The futures of programs, or of communities, appear to be at risk. Responsible professionals, even bureaucrats, will work overtime if the effort promises to reduce risks of losing out to the competition.

Poor villages have very frequently reached a situation where households and individuals who are responsible for the decisions discover that they are playing what are known as "zero-sum" games--one's own winnings are matched by equal losses on the part of others. A greedy person in a strong playing position would impoverish his neighbors, so various kinds of social controls are applied to inhibit strongly competitive behavior. These inhibitions are often quite subtle because they are internalized, so they become matters of conscience and conformity to custom. Thus a person is reluctant to make the strongest possible efforts on his own behalf, because people will say that he is "taking bread out of the mouths of others," or "breaking their rice bowls." If his good fortune cannot be hidden from view, these others will have an opportunity to come forward and make an appeal for charity under circumstances that it would be difficult to refuse. In long-standing "zero-sum" situations people honor their commitments and are reluctant to make big changes. The unlucky losers just disappear; they fade out; leaving what remains of their stakes to creditors and kin. A young generation of untested amateurs rises to take their place. Some find the action too slow; they take off for the bright lights where the stakes are higher, the risks greater, and the abyss deeper.<sup>21</sup>

Occasionally the external world becomes harsh, and a community that once was able to do well enough to get by is then placed under heavy pressure. The Law of Diminishing Returns takes hold with a vengeance, so that added effort fails to repay the investment, thus worsening the dim prospects. The game has become "negative-sum." People scheme to cheat each other, theft becomes prevalent, and mutual suspicion floats like a miasma from the depths. The community has become a wicked place where neither fair competition nor cooperation can flourish. Most of Korea was like this during and immediately after the civil war with the North; in that era only the vulture types could thrive. Conditions for negative-sum situations were created later on in scattered locales by unbalanced growth. Communities are particularly vulnerable whenever overshoot has occurred, as in China's "Great Leap Forward."

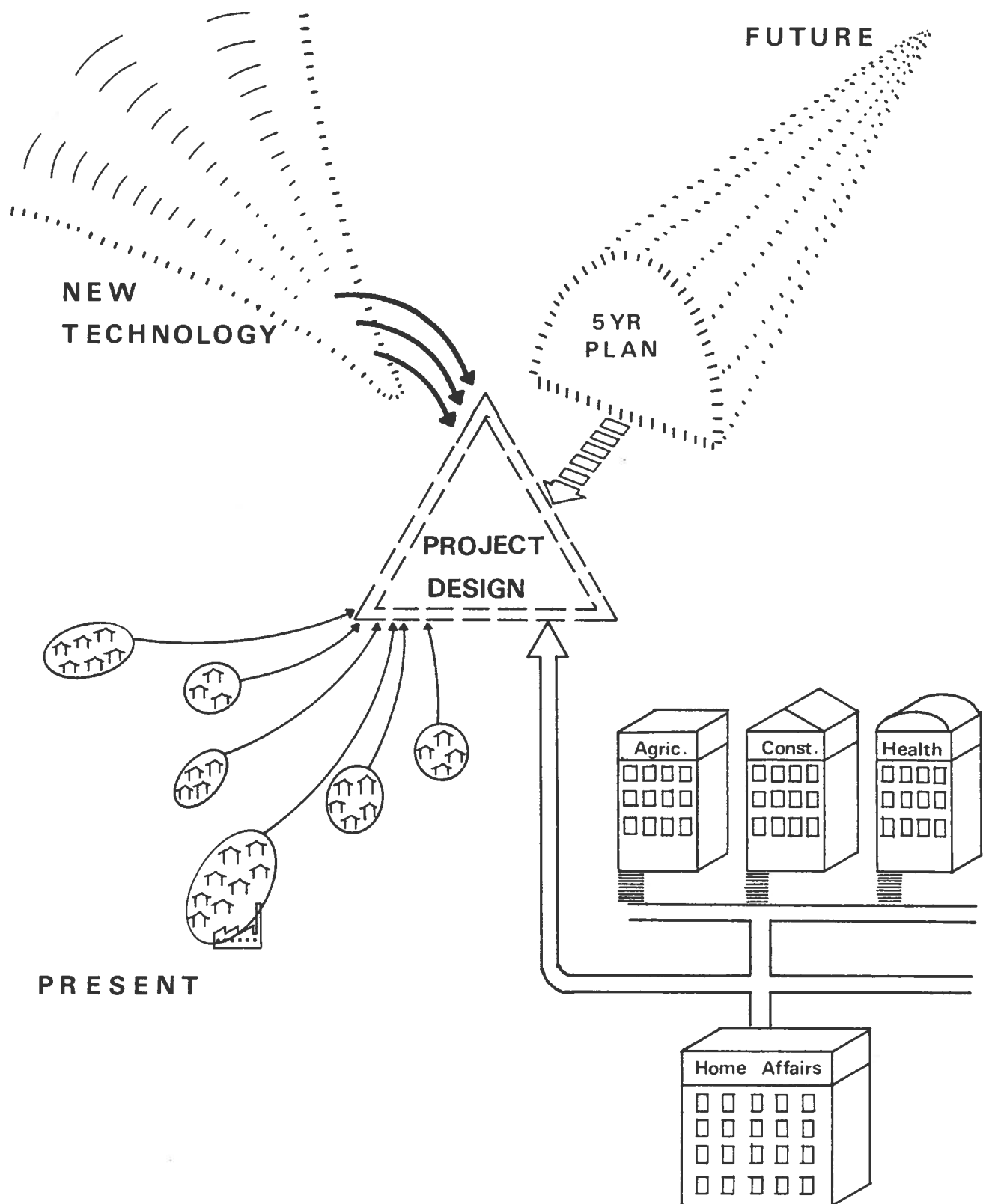


Figure 9

New forces and added stakeholders in projects with lateral connections.

The wise social and economic planner endeavors to transform the negative-sum and the zero-sum contests into strongly "positive-sum" games. People must still take risks, and many still lose, especially the unwary, but the rewards are more than sufficient to recompense the losers. Part of the surplus can be invested in improving the soil or in infrastructure, so that the odds are shifted even more in favor of action within the community than before. But what kinds of strategies have the property of improving the payoff structure of games imbedded in the social system? The study of game theory and practice suggests the following policies:

1. Increased information relevant to risks and payoffs can lead to more precise calculation, better timing, and reduced waste, so barriers affecting the flow of information should be removed, particularly for those items from the outside that can be transmitted within the communications network of the community. Censorship should be liberalized.
2. Higher levels of trust between people make it possible to do favors for each other with the expectation that others will do the same for them. As trust increases, the backlog of favors can pile up without taking the trouble of noting or recording them. These favors cost the giver very little, but they can be extremely helpful to the receiver, multiplying his rewards. Informal helpfulness is strongly "positivizing."
3. Organizations of many kinds can be stimulated; they make concerted effort possible--just at the time it is needed to maximize output. It does not really matter whether the organization is governmental, co-operative, private trading, or voluntary-service-oriented, so long as it is viable. The predatory and destructive organizations (underworld syndicates, guerilla units, monopolistic combines, etc.) are almost always forbidden by law. But any law that forbids associations and enterprises created by local initiatives will impede community development. Organizations also disseminate information internally among participants and employees so as to expedite teamwork. Voluntary associations are necessarily "positive-sum," because those with prospects of losing soon resign their memberships, and government eventually prevent the extraordinary negative external effects such as pollution, that may result.
4. Destructive conflict can be reduced by providing arrangements for negotiation and mediation. A modicum of conflict can stimulate creativity by causing competitors to explore alternative paths they would not otherwise have considered. The costs of conflict are registered mostly through monopolizing human attention, drawing it away from the wide variety of phenomena that contribute to a winning effort; but they also waste property on some occasions, so the losses can be readily surveyed. "Turning the other cheek" is a positivizing gesture, if done in public.
5. The behavioral traps, such as the prisoner's dilemma (where people are inadvertently punished for trying to initiate cooperation), compulsions to gamble for high stakes, addictions to alcohol and other drugs, and others, should be reduced. Traps can be avoided if posted, and the ill effects of the vices, once people have been caught up in them, can be greatly reduced by placing excises upon such consumption, and funnelling the funds into community enrichment. The welfare state could be launched, the Fabian socialists maintained, by taxing the vices of the poor.

The Koreans greatly expanded their flow of information by putting emphasis upon electrification, which not only provides lighting by which children can study, but inevitably in this era leads to television purchases. As noted earlier, the national networks devised some programming that was of great interest to rural people. Information of more immediate value was obtainable by telephone; it was often transmitted over the village amplifier along with the local arrangements for cooperation.

Throughout the countryside, mutual trust was further developed by doing more things together--discussions, standing night watch, school sports, trips, celebrations, and more. Perfect trust is rarely achieved, but at least each person then knows the extent to which the others could be trusted. The community would no longer resort to antagonistic behavior, and therefore acts more appropriately.

Control of cheating is essential for the stabilization of a gaming situation. In agriculture it often shows up in the management of quality control for farm output. How does one make the topping of a barrel of Grade B with a layer of Grade A a useless stratagem? Most growers do not have a conscience in this respect; therefore a group of technically trained umpires, called inspectors, is introduced into the marketplace for agricultural commodities. They determine the quality according to standards set down in collaboration between retailers, wholesalers, producers, and government, with the underlying studies carried out at an experimental station.

These grades should distinguish degrees of quality in the product by more than one j.n.d. (just noticeable difference), but not significantly more than two, otherwise discrimination within grade will become rampant ("send the best to your friends and the bottom of the grade to anonymous outsiders, especially when they are overseas"). It is obvious that the reputation of the producing community will suffer when this discrimination becomes known, and its ability to expand the market for its specialty will be correspondingly diminished within a few years.

Establishing effective quality standards and the training of inspectors are two procedures undertaken in the interests of the producers and the bulk of the public. But they tend to reduce the welfare of the urban poor--the least discriminating customers and the part of the public with the least "market power." This is the "zero-sum" characteristic that remains within the overall situation. It can be changed in the positive direction if, as in much of Europe, the poorer urban customers set up a cooperative that can negotiate with the producers, and together they create channels for distribution outside the market. The poor are quite satisfied with ungraded produce direct from the field, which is significantly cheaper to harvest and deliver, but they must organize to assure themselves access.

Cheating can occur in social interactions as easily as in economic transactions. It occurs when an obligation freely entered into is casually broken, with apparent benefit accruing to the malefactor. Under such circumstances trust evaporates and the community loses its togetherness. Some individuals respond by migrating to join other communities, and others may undergo religious conversion; they refuse to be trapped in a game where the

unfair tactics of others prevent them from winning. Ethical principles in a prescientific society usually have a religious foundation.

Gamesmanship is a more subtle form of cheating. It plays upon the ambiguities within the rules so as to obtain a temporary advantage. (In Korea there is a tendency to push oneself ahead in situations that normally call for queuing.) In a rural community, where a large share of the rules remain unwritten, more opportunities exist for the destruction of trust. often the community development leadeed is forced to redefine the rules, and then gain consensus for such changes. That takes up valuable time.

Clever people can invent counterploys that put the gamesman in his place, but in so doing they often reduce the interaction to "negative sum" because so much effort is spent in litigation or its equivalent. From the point of view of the community welfare these are meaningless contests.

For reasons that have not yet been explained in the social science literature, these problems have not been serious in Korea as they tend to be elsewhere (although it must be noticed that village migrants to the cities are turning to fundamentalist Protestant ideologies in large numbers). The issue arises only because the transfer of a Korean formula is being considered. other societies are warned that they may have to apply controls over the gamesmen before comparable results can be expected.

Organizations that offered better use of local savings were strongly encouraged as long as they appeared politically harmless. If organizations advanced a top priority in the Five-Year Plan, they were likely to be able to get credit from the Government-supervised banks.

The conflicts that raged off and on in Korean villages were mainly feuds between factions, often clan-based. The Sae Maul Undong leader for such communities had to be picked for his capacities as a mediator. The common traps and addictions were not prevalent enough to become a major deterrent in Korea, but it is interesting to note that when the Mothers' Clubs gained real strength they occasionally decided to tear up the playing cards and cut off the supply of rice wine, because they saw the combination as a major threat to 1980, 153-169. further community improvement.

Simultaneously with these intravillage contests, games are being played on larger stages. When the key projects involve clusters and strings of villages, people begin to realize that whole communities are competing with each other and will be searching for equitable forms of cooperation. Sometimes the prize is a scarce natural resource, perhaps water during the dry season, or grazing rights in the public forest, but otherwise it could be a one-of-a-kind opportunity (a seeds-producing plant breeding district, an electronics factory, etc.) that goes to a group of villages that make themselves the best qualified, and therefore most likely to carry off the project successfully. At this level one finds that continuous face-to-face bargaining or specialization (division of labor) are the most common approaches to making the interplay "positive-sum."

The nation itself, or some of its enterprising regions, must also compete vigorously--especially for foreign markets. In that instance the players (actually their decision-making representatives) are technocrats, and the

supporting cast will be found in the most modernized of the rural areas. Korea competes with Taiwan, Hong Kong, Malaysia/Singapore, and sometimes China and the Philippines, although the dominant player in these world markets is Japan. It is so far ahead it picks the best opportunities for itself, and countries like Korea must be alert to pick up whatever remains. The competition tends to be "zero sum" in the short run, but it can be modified to become positive by participation in negotiations to reduce trade barriers and by undertaking multiple (diverse) specializations.

The Korean agricultural sector has yet to evolve many significant agricultural specialties. Ginseng is the best known. There seems to be considerable hope in apples and apple products, because they are highly valued in the humid tropics where incomes are steadily rising, and in fish and marine products in which domestication (long delayed because of complex reproductive cycles) and polyculture may increase yields spectacularly. These suggestions arise from an inspection of very recent trends in exports. Since the rice quota and subsidy will decrease to zero by 1986, according to the current national planning strategy, the farmers will have increasing freedom to switch crops and work out increasingly sophisticated tactics. Thus, as rural development breaks out of the tradition-based, village-oriented way of thinking, every level of the society becomes entrepreneurial and game-like in its behavior.

The "enterprising village" has now become the idealized outcome of the Sae Maul Undong efforts. Some villages may mechanize the agriculture and then use their extra time in transport services others may become specialized dairy centers or chicken-raising complexes, and some may even specialize by offering technical services to other villages, such as pest control, container fabrication, marketing, etc. What will disappear is the concentration upon rice, even though rice remains the predominant crop.

In some cases a village corporate unit, or a regional cooperative, will become a highly entrepreneurial agent (horticulture is like this in many parts of the world) and households behave like subcontractors, while in others each household begins to act like an independent firm. If so, they will need their own telephone and post office box, their personal transport (light trucks, mopeds, or bicycles in a densely populated area like Korea), and a line of credit at the bank. Wives and daughters would learn to keep the accounts.

Curiously, the "positive-sum" characteristic encouraged for the environment in which competition takes place does not impose a common form upon the face-to-face community (i.e., village-scale association). A monastic community can be as viable and entrepreneurial as a warm, neighborly, cooperative-centered settlement or an aggregation of independent market farmers. A deeply religious parish can gain competitive advantages from such social bonds, if it adopts the appropriate specializations. An autonomous countryside should have many rural ways of life in order to be truly stable, and young people should be allowed to choose between them. The desired outcome is a mosaic, with the fine structure constantly shifting.

#### Destinations

Entrepreneurial self-directing communities are gaining the freedom to change themselves; they are acquiring the capacity to plan changes in their

activities. That capacity enables them to escape completely from the rut of underdevelopment and fatalistic acceptance of their destiny. But each community is then faced with an awesome choice: in which direction should it choose to move?

Demographers and geographers speak to the issue from the standpoint of the history of rural transformations. They have observed that first in Great Britain, where the industrial urban revolution began, and then North America and Europe, the metropolitan form of human settlement became dominant. Machines triumphed in the countryside, first displacing the landless labor, but later filling a vacuum when the sons of the family failed to return to their patrimony. As the population declined people abandoned the poorest dwellings in the villages and towns, added shelter for their machines, and then they all grew old together. In America the new growth in the countryside was in agro-industry, while in Europe it was mostly tourism. Extrapolations led to a virtually empty countryside with broad fields operated by "suitcase farmers" who maintained a good house in the city or a viable country town, and managed fleets of vehicles with appended agricultural machines while they were caping in the countryside during the seasons of planting and harvest. Hilly areas were allowed to revert to forest, and mountain valleys were usually taken over by tourists. North America had gone 80-90% in that direction.

In the 1970s two sharp reversals occurred that changed this outlook drastically. It was noted that one by one people had started to abandon the suburbs in order to settle in the vacated homes of the towns, villages, and fringe settlements, and when that supply disappeared a small building boom was stimulated. These were people who wanted a less hectic life and more open space than were provided by planned suburban settlements. The newcomers to the rural districts became jacks of all trades and "jills of all jobs," even if they also took up farming and forestry.

The other swift change was in energy price. Western agriculture became energy-intensive when petroleum and natural gas had become extraordinarily cheap, consequently a calorie of food value produced by the sun required 2-3 calories more from fuel for the machines, the fertilizer, and the transport to the market before it reached the consumer. Technologies already exist that allow agro-industries to get back to sunlight as the predominant energizing force, but the capital requirements, we are warned, are enormous. Therefore the adjustment will be slow and painful, but the resulting settlement pattern will certainly be much more nonmetropolitan. Further beyond no clear trend emerges. Various new hybrids of urban and rural settlement are being created, but all of them seem to depend upon a spaciousness and resource availability that is not found in South and East Asia or in most of Africa.

When the population density at the initiation of development is three to ten times that of North America, and is steadily increasing, it becomes apparent that there are much less of the fundamental resources of sunlight, water, and land per capita, and much less energy that can be shared with machines, yet the popular desire for a good life is no different. Thus the mix of organized effort, energy, technology, and knowledge must be strikingly different for the countries that develop later.

Japan offers another suggestion regarding destination. Its villages were depopulated when they were most inaccessible, or engulfed by metropolitan

growth when they were too accessible. Most of the agricultural land has been kept in cultivation by introducing small-scale machinery adapted to rice growing and horticulture. Farm families were encouraged to work at nonfarm jobs in the off-season when rural people were previously unemployed, unless engaged in very poorly paid traditional crafts. Also, better roads meant more options, so farm family incomes began to exceed urban household incomes, and therefore most rural residences were maintained. Electronics plants were directed to the most depressed rural regions in the south of Japan, thus superimposing a growth industry upon a static productive activity.

Farming in Japan was granted very large subsidies and was reinforced by a stream of special benefits. City people willingly paid this price for "peace of mind," a security against the starvation that could come from an unsettled world if they depended upon the much more economical imported foodstuffs. The subsidy has been raised so high the rice granaries are overflowing. It would appear that the Japanese have found an equilibrating rural policy that maintains production in nonmetropolitan areas and that can be fine-tuned by adjusting guaranteed prices but sociologists have posted a warning note. It seems that no able-bodied young woman wishes to marry the oldest son of a farmer, since by custom he has inherited the commitment to the land. The marriage brokers are at a loss. Studies on what Japanese call "quality of life" confirm that living on an isolated farmstead or in an out-of-the-way village would be regarded as the poorest quality of life. A more complete formula needs to be invented soon.

The Korean rural support policy started the 1970s with a formula like that of Japan. Government purchase prices for rice and barley were regularly raised as the cost of living and/or urban wage rates rose. The grain was resold to the public at a price less than or equal to the world market level, and the difference was borrowed or added to the money supply. By 1980 it was clearly recognized that the principal source of inflation exceeding that registered in countries with which Korea traded was attributable to its food subsidies. This differential rate of inflation could not be tolerated over the long run, so the Economic Planning Board ruled that the subsidy should be whittled down to zero by 1986, when the price of rice and barley should be moving in equilibrium with the world market. Thus the Japanese path is ruled out for Korea. A new relationship must be sought. Where can it look?

The beginnings of the new policy are to be found elsewhere than in agriculture. The decision has been made to place what amounts to an excise tax upon all imported fuels, except those used by poor people, and simultaneously encourage energy-conservation technologies. The worries about water supply and the impending conflict between livelihood based upon export industries and local food production have led to increasingly detailed studies of the larger watersheds. The evolution of a resource-conserving metropolitan infrastructure is already implicit, but the full implications have yet to be elaborated. More than that, some of the policies so far adopted are not consistent with that aim. But it is already possible to deduce the principal characteristics of a resource-conserving metropolis, since it has been done for Third World Cities in general, and for Indonesia in particular.<sup>22</sup> Then it is possible to work out the complementary characteristics for the less powerful nonmetropolitan areas that encompass the urban agglomerations.

Large cities must find ways of economizing without loss of efficiency or

overall quality of life. In order to compete with the established urban centers, but latecomers must exploit several "facts of life" affecting great cities:

- ⊕ Most future urban work is in services, particularly those based upon information processing, and not in manufacturing, as in the past.
- ⊕ Arguments based upon climatic statistics show that water shortage presents the greatest risks, so water recycling and other economizing procedures, such as supplying several water commodities with greatly different purity standards, must be embraced before the "hundred-year drought" appears.
- ⊕ Fossil-fuel dependency must be reduced to 10% or less of the American per-capita levels at present, otherwise crippling losses will be experienced.
- ⊕ Disturbances in food supplies are inevitable, but they can be overcome by producing perishable foods within the city limits, and maintaining stockpiles of storable foods to survive crises.
- ⊕ Principal exports from the nonmetropolitan surroundings would be water, food staples, meat and milk (or their substitutes in much of Asia), electric power, liquid fuels, and materials of construction (Figure 10).
- ⊕ Principal exports offered in exchange would be services, manufactures, and solid wastes.
- ⊕ Cities would exchange with each other huge amounts of information, semi-manufactures and subassemblies, and quite large numbers of personnel. This implies expansion of air passenger and air freight services.
- ⊕ Metropolises would deconcentrate into less dense polycentric urban regions closely interconnected by means of a web of bus, truck, and rail routes together with a high-volume telecommunications grid; density would vary in the 3,000-10,000 persons/km<sup>2</sup> range, but mountains, marshes, flood plains, and other difficult terrain would remain open space, while intensively tilled green patches would produce perishable foods.

The complementary countryside is primarily assigned the task of efficiently converting sunlight into biomass, which takes the form of:

- ⊕ Staple foods, such as cereals, sugar, beans, cooking oil;
- ⊕ Byproduct conversion into fish, meat, milk, eggs, and local fuels;
- ⊕ Multicropping and polyculture production of both staples and specialties;
- ⊕ Biogas for local use, and liquid and solid fuels of export quality;
- ⊕ Materials of construction, from wood to paint resins to rubber;
- ⊕ Recreation.

Staple foods are most economically produced in monoculture on a massive scale. A combination of new machines, fertilizers, pesticides, herbicides,

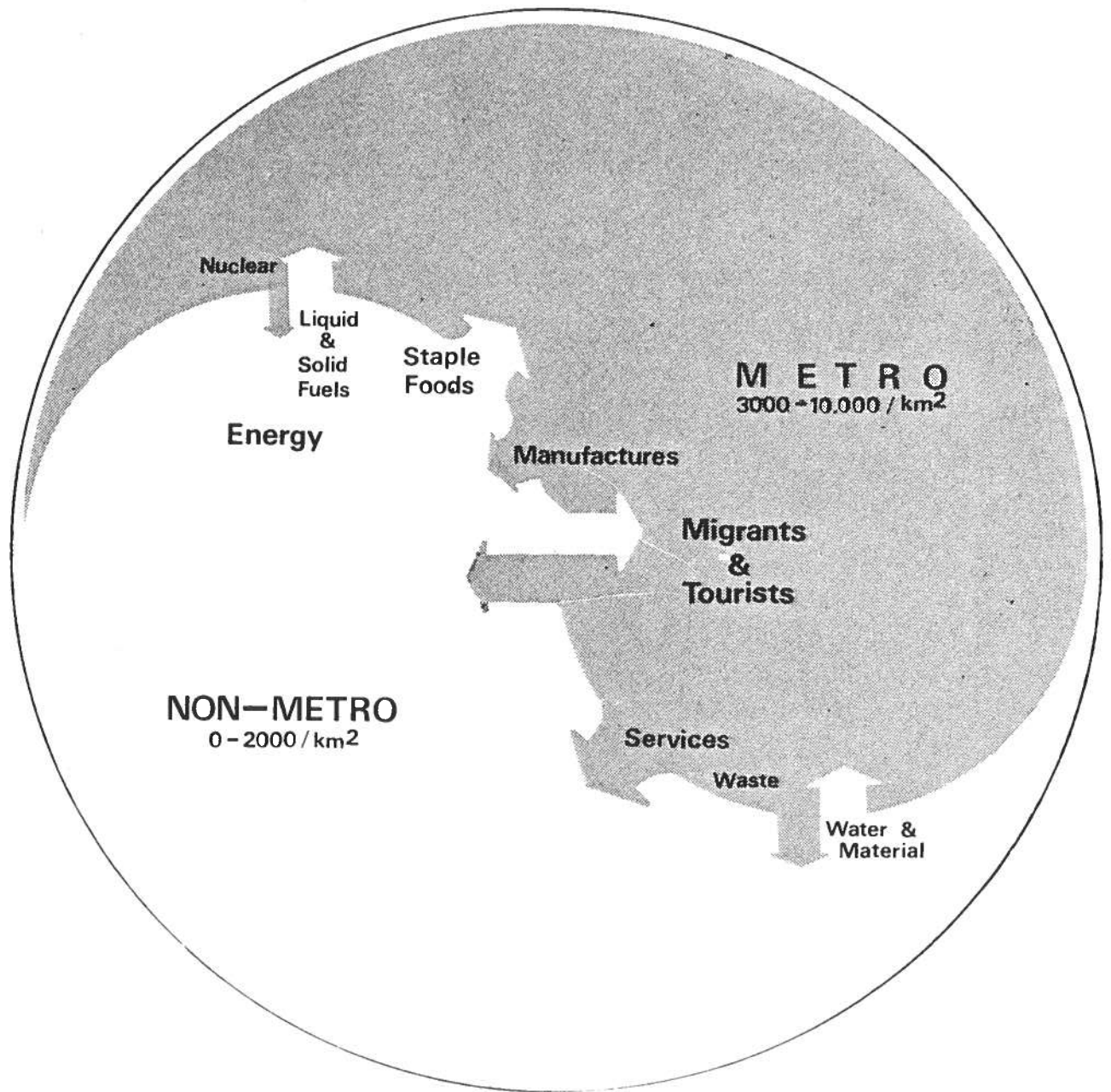


Figure 10

Complementarities approaching a stable state.

and advanced genetics will cause rice cultivation to follow parallel transformations affecting sugar, wheat, maize, soy beans, and palm oil. So it will become an agrotechnology requiring university-trained management. Machines will do all the hard labor, and the machine operators are expected to be people in transition--landless laborers on their way to become urban, and urbanites escaping from the stresses of cities. The population residing on land applied to mass production is sparse, but the scattered communities handling the technology develop complex decision structures dominated by bureaucrats (it matters little whether public or private), middlemen, professionals, and technicians. The elaborate technology imposes a style of organization upon villages and towns that miniaturizes a city.

"Byproduct conversion" may be a misnomer for the biotechnical complexes that generally evolve at agricultural commodity collection points, because along with highly rationalized animal feeding based upon straw, molasses, and pulps, there will be a number of artisan-based products brewed, fermented, cured, or formulated from choice produce. Behind these highly integrated enterprises, all of which demand much close attention, we often discover warm, tightly-knit, and long-lived human communities.

They are paralleled by communities dependent upon multicropping and polyculture--the direction that most of Korea is likely to go. Under these circumstances communities may develop ten, twenty, or even more products, almost all specialties, maintain one or two traditional crafts, and add a workshop or two for skilled tradesmen. Factories in nearby towns would offer intermittent employment, but most second and third jobs in the households would be dedicated to services. If they are to remain viable, these communities must continue to borrow and innovate, welcome newcomers bringing extra skills and marketing contacts, and be willing to discard a tradition in favor of a better way--once it has been proven. All these features sound like a description of rural Switzerland today, and a long, long way from any conditions observed in Asia, but Korea's current huge investment in education could, when combined with its pragmatic outlook, bring it to that stage of rural development within a human generation.

The reference to biogas and other fuels relies upon recent versions of medium-to-small-scale technology that draw upon various forms of biomass as a raw material. The conversion of surplus straw and woodwaste into fodder, densified fuel briquettes, and charcoal promises to be economic in a fair number of locales already, while transformation into "synthesis gas" (a combination of carbon monoxide, hydrogen, and steam) leads on to methanol and almost any high-quality liquid fuel at a cost in the vicinity of prospective selling prices. Biogas from animal wastes is already an economic proposition; the cost of facilities depending upon biomass from algae, pondweed, or higher plants appears to be low enough to be of interest very soon.

Communities at the heads of valleys--normally the most isolated of all--are likely to add forestry and wood processing to orchards and root crops as their most appropriate specializations. A few locales may find it possible to "tree farm" the land available to them on a five-to-ten-year growth cycle. This is still relatively extensive cultivation, even at the new high energy values, so 5-10 hectares would be needed to produce a comfortable living (say \$5,000 per year). Energy farming based upon the capture of sunlight seems likely to take 3-10 times as much surface to support a worker as food

production, so it does not promise to become an important occupation in a densely settled countryside, such as in Korea.

Except for the occasional hydroelectric, geothermal, and peat bog site, the rural areas seem likely to obtain their electric power from the metropolitan grids. The cities will depend upon imported coal and nuclear sources for their generators. Domestic fuels can move steadily back to biomass sources, while transport fuels seem likely to depend upon petroleum until it is finally exhausted. perhaps by then people will have become used to using telecommunications as a substitute for most trips and shipments, because that would save about 90% of the energy. otherwise large empty areas of the world would save about 90% of the energy. Otherwise large empty areas of the world would have to be dedicated to the collection of solar energy and huge amounts of capital committed to the fuel producing enterprises that convert the energy into the forms required by the metropolises.

The foregoing discussion about "destinations" will seem farfetched and a matter of little concern to most of the societies endeavoring to borrow techniques that have been borrowed in Korea. They are mostly far, far behind the conditions Korea has already achieved. With respect to electrification alone, only a minor fraction of Egyptian villages have been connected to the grid, and the only state in India to be fully electrified was fortunate enough to have a large hydroelectric plant within its boundaries. Some valiant efforts have been made in the Philippines, despite their geography, but again only a minor fraction is connected. Moreover, since electrification was only one subsidiary indicator of achievement with the Sae Maul Undong and cooperating agencies, the effort required to match the overall level of improvement appears to be a large enough task to manage over the next decade or two. Nonetheless it is important, according to the Korean formula, that a late-starting society take a realistic look at the distant horizon. It could save some of the back-tracking that the Koreans themselves are now experiencing.

It should be recalled that one of the first, and most basic, principles of the Korean formula is to reward diligence and achievement promptly with more support from the central government. Therefore some responsive communities will push themselves further and further ahead. Within four or five years after the start of a comprehensive program there will be a broad distribution among villages that have begun to change, and a few may already have reached the "enterprising community" category. They will need some guidance regarding what settlement patterns and investments in land would be suitable over the long run. The lead communities explore and test the futures most accessible to those that follow. The successful communities most often serve as models and training stations, but sometimes these lead communities fully exploit a small pocket of opportunities (e.g., combining fishing with small trading and specialized agriculture) and serve more as a counter-model, demonstrating that the better living that they found was good for them for a while, but it is not on the main road to a future that could sustain a good level of living in the long run.

The future structure of the nonmetropolitan sector of a society depends upon the highest-yield technologies already known or expected to be developed. This may imply a redistribution of population over space, especially since the highest-priority effort--fertility reduction--will have uneven responses. Transport corridors should be chosen using this outlook rather than the

standard traffic generation models, which at present are biased by their reflection of a past that had not yet adapted to high petrol prices. Clusters of interdependent rural enterprises can be identified in advance and zones established within which they are most likely to take shape. Other services that may reinforce these complexes of productive activity may be channelled into the appropriate zones as they become available in the society.

This is "broad brush" planning, but it gets more explicit over time as villages and clusters commit themselves to new enterprises. Some of the zones will shrink to districts as specialization crystallizes in the countryside. The need for a dependable flow of reliable data (future-oriented rather than reflecting bureaucratic operations) to fit the growing technological knowledge is self-evident. The detailed developmental planning grows out of those data.

### Conclusions

The extraordinarily rapid pace of social and economic development in the rural sector of Korea over the course of a decade encouraged an investigation as to whether the policies and strategies used there would not be applicable to other parts of the world that are anxious to stimulate balanced development. Korea's New Community Movement (sae mau undong) evolved techniques that have been assessed and evaluated since the beginning by scholars both inside and outside the country, with the most recent set published in English simultaneously with the Korean edition. Several Asian countries are already dispatching experienced personnel to learn as much as they can, so the interest in the transfer of these inventions has already been demonstrated.

The quality of life induced must depend upon the values of the participants in the community, and their satisfaction with conditions, and not upon the values or ideologies of the planners. Koreans apparently prefer discipline and order, so they worry less than most people about disparities in consumption. Social justice is always important, but the Korean version allows shortcuts in administration and popular life styles not acceptable in many parts of the world.

A strong fertility control program happened to precede community development in Korea, but these two efforts will need to be one in most parts of the world because of the high priority assigned to population-growth limitation. The mothers' clubs became women's clubs, which included marriageable girls and older women. In their strategy the central focus is to expedite saving and direct the savings to small enterprise while transmitting information needed for successful contraception. The two purposes come together with the recognition that a woman's enterprise takes up the attention she would otherwise devote to raising the next infant. Electrification may have a effect upon fertility when it produces a wider range of enterprises suited to women's roles in that society. The fostering of women's clubs must be comprehensive, because of the high priority assigned to fertility reduction. Somehow a policy position must be found that allows abortions, even if they are outside the law, because this is the method of last resort available to a society that has introduced some facilities and trained staff who can make it relatively safe for mothers.

Momentum must be achieved as quickly as possible. At least two highly productive innovations seem to be required to gain acceleration. The

surpluses they generate can be channeled into other enterprises that can balance and expand the overall program. Clustering special projects in a district or county often adds to a feeling of momentum, even though objected to by politicians and socialist ideologists.

The opportunity for a community to improve itself must be provided comprehensively, not a district at a time as agencies become "ready." This implies "institution-building" at every level in the hierarchy, from the top executive to individuals at the base. Everywhere the program should draw upon patterns of cooperation already understood in the communities. The initial mix of "top-down" and "bottom-up" procedures for organizing projects depends upon cultural expectations, and it will after a while become quite variable. The ethical concern of intellectuals, which causes them to espouse "bottom-up" approaches, was rarely shared by Koreans in rural communities. At later stages projects involving strings and clusters of communities will become much more important, so the proper strategy is to develop proposals with "lateral" effects having a "microregional" impact. In the topography of Korea, potable water projects often had these characteristics. The concept of "comprehensive" must extend to the informal economy (where taxes are usually not collectible) and even to activities that cannot be officially reported because they rely upon "black money" or are otherwise extra-legal. The Koreans found ways of mobilizing unreported income for high-priority purposes, but very soon liberalized regulations so that very few extra-legal sources remained. As a result, rural data became relatively reliable and could be used for planning.

The mix of competition and cooperation needs to be shaped so as to produce "positive-sum games," both within a community and between communities. This can be done by expediting the flow of reliable information, enhancing trust, stimulating the formation of organizations of all kinds, mediating conflicts, and reducing the losses due to behavioral traps, addictions, obsessions, etc. These background conditions encourage the emergence of "enterprising communities" that can take care of themselves as the society as a whole searches for a sustainable steady state--an ecological climax at an adequate level of living. Too often it is not recognized that "positive-sum games" are eroded by "gamesmanship" that makes unfair use of publicity, and by corruption and cheating that is reported, frequently with amplification, by rumor. Those who fail to comply with the rules of the game must be penalized by the umpires, and some may have to be ejected.

The characteristics of the long-term equilibrium relationship with the environment needs to be understood as clearly as possible. It must be based upon the productivity of known or attainable technologies for the support of rural people, and the kinds of communities induced when using the technologies efficiently, but more than anything else, the nonmetropolitan areas must become complementary to the powerful metropolitan settlements that they enclose. Neither North America, Western Europe, nor Japan offer any adequate historic or contemporary parallels for a stable interdependence of urban and rural regions in the Third World.

### Notes and References

1. William H. Wheaton, "Singkong: A Parable on Regional Planning," Proceedings of the Third International Conference on Regional Development, Japan Center for Area Development Research, Tokyo, 1970, 257-260.
2. Terence G. McGee, Hawkers in Hong Kong, Centre for Asian Studies, University of Hong Kong, No. 17, 1974.
3. Terence G. McGee, Hawkers in Southeast Asian Cities: Planning for the Bazaar Economy, IDRC, Ottawa, 1977.
4. John R. P. Friedmann,
5. Richard L. Meier, Planning for an Urban World: Design of Resource-Conserving Cities, M.I.T. Press, Cambridge, 1974.
6. Richard L. Meier, Urban Futures Observed--In the Asian Third World, Pergamon, New York, 1980.
7. Richard L. Meier, "Exploring Development in Great Asian Cities: Seoul," Journal of the American Institute of Planners 36, 1980, 378-392.
8. Ronald Dore and Zoe Mars, editors, Community Development, Croom Helm, London, 1981; see especially the contribution by Vincent S. R. Brandt and Man-Gap Lee, p. 49-138.
9. Man-Gap Lee, editor, Toward a New Community Life: Reports of the International Research Seminar on the Sae Maul Movement, Institute of Sae Maul Undong Studies, Seoul National University, Seoul, 1981.
10. Alejandro N. Herrin, "Rural Electrification and Fertility Change in the Southern Philippines," Population and Development Review 5, 1979, 615-641.
11. Research Institute for Telecommunications and Economics, Tokyo, translations of research reports, 1975-1976.
12. The portable telephone services in America have been deregulated, and the needed high-capacity exchanges have already been designed. Asia Week (December 4, 1981, p. 6) reports a Lockheed Missiles development that would allow telephones to be used in isolated valleys without building fiber-optics cables or microwave connections as previously visualized. The reduced costs of overcoming distance in nonmetropolitan areas suggest that the personal telephone will be preferred there more than home and workstation connections.
13. Moon, Ok-Ryun, "The Cheonseong Gun Community Health Program: An Overall Review," Korea Journal of Public Health, No. 29, June 1979, pp. 55-69.
14. Yang, Jae-Mo, "Major Trends in Health Policy and health Care Organization," a paper given at the WHO/ESCAP Meeting on Mortality in Asia: A Review of Changing Trends, Manila, November 1980.

15. Sung, Whan Ban, "Development of the Rural Infrastructure . . ." in Man-Gap Lee, editor, Toward a New Community Life, op. cit., 299-324.
16. Vincent S. R. Brandt, "Values and Attitude Change . . ." ibid., 483-508.
17. Edward R. Reed, "Village Cooperation . . ." ibid., 273-298.
18. Nongrowth of the informal sector is a controversial point because it is an important phenomenon and also, by definition, undocumented. It is based on personal observation of Korea for seven short periods between 1968 and 1982. Indicators of the informal sector at the subsistence level are begging, salvage intensity, and street vending with small inventories. At the intermediate level the prevalence of prostitution also declined, and evidences of supplies of "black money" diminished in scale, probably due to astute government intervention. At the top level, an organized underworld has not grown up to undertake promotion of the vices. Marijuana is not known to be grown, nor is opium.
19. Business Week, December 1, 1981, p. 4.
20. Dennis Rondinelli, "Administration of Integrated Rural Development Policy," World Politics 31, April 1979, 389-416.
21. A discussion of similar arguments, as they apply to the total American economy, can be found in Lester C. Thurow, The Zero Sum Society: Distribution and the Possibilities for Economic Change, Basic Books, New York, 1980.
22. Richard L. Meier, "A Stable Urban Ecosystem," Science 192, 1976, 962-968; "A Stable Urban Ecosystem: Anticipations for the Third World, Third World Planning Review 2, 1980, 153-169.