



**PRACTICAL CONCEPTS INCORPORATED**

62569

**SMALL FARMER ATTITUDES AND  
ASPIRATIONS:**

**The Road to Development  
via  
The Market Economy**

Prepared for

PPC/CDIE

U. S. Agency for International Development

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December, 1987

## **PREFACE**

This report was co-authored by Ken Kusterer, PhD, and Leon J. Rosenberg, president of Practical Concepts Incorporated (PCI).

Dr. Kusterer reviewed the anthropological literature (comprising a data base in excess of 2000 entries) to determine what contemporary research has to tell us about how small farmers view development.

Dr. Kusterer's findings were of such potential moment that PCI was retained to review and resynthesize the findings, and to assist in their communication. A collaborative exchange was undertaken, with the objectives of:

- Clarifying the findings so they could be subject to discussion and test;
- Communicating the findings, and implications for development policy, to facilitate discussion and action.

This report is the result.

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## SECTION I EXECUTIVE SUMMARY

### A. WHY THIS REPORT IS IMPORTANT

If the study findings are valid, this report is important because those findings suggest that:

1. Conventional Views of Small Farmers May Not Be Valid;
2. Conventional Approaches to Improving the Lot of the Small Farmer May Not Be Valid

#### 1. Conventional Views of Small Farmers May Not Be Valid

The small farmer appears to be best characterized in ways not entirely consistent with "conventional" views:

- Small farmers are eager to enter the market economy. They are the "micro-entrepreneurs" in rural areas.
- The proper unit of analysis is the household, which is best viewed as a "diversified conglomerate." The individual householders can be viewed as quasi-independent "corporations" within the conglomerate.
- Small farmers are not distinguishable from other rural poor. Thus, we use the terms "small farmer" and "rural poor householder" interchangeably.
- Small-farm households (and householders) exhibit hierarchical goal-seeking behavior. The driving force underlying that hierarchy comprises:
  - Extending economic security along a time line-- that is, from day-to-day (e.g., hunter/gatherers) to generation-to-generation (e.g., educating children to ensure that the next generation has a higher standard of living);
  - Minimizing risk of losing the level of economic success already achieved.
- That goal-seeking behavior can be expressed in five distinct levels of objectives. These levels (and behaviors) transcend cultural and geographic boundaries-- they appear to be universals. The hierarchy of small farmer goals is presented as Table I-2 (page 7).
- Small-farmer behavior appears completely rational when viewed from the perspective that he (she) is protecting current position in the hierarchy or attempting an advance to the next level.
- A successful small farmer will ensure that the next generation will include at least some who are not small farmers. In fact, the typical successful small farmers are no longer primarily farmers.

The small farmer innovates and takes risks as appropriate to the situation. The anthropologists, not the small farmers, are the conservators of tradition.

2. Conventional Approaches to Improving the Lot of the Small Farmer May Not Be Valid

If our conclusions regarding the attitudes and behavior of small farmers are correct, then conventional approaches to improving the lot of the small farmer are not valid. In which case:

- Loans to subsistence farmers-- those at early levels in our goal hierarchy-- don't make economic sense. Loans will not typically be accepted by subsistence farmers and, if accepted, will not be repaid.
- Nor does most government assistance: the small farmer is not going to risk his livelihood on the ability of the government to continue a program.
- On the other hand, almost any investment in a rural area will probably increase the effective income of households in that area.<sup>1</sup>
- The programs that will most clearly and directly benefit the smallest (i.e., subsistence) farmers are those that will improve the productivity of householder labor.
- Such programs include investments in infrastructure.
- Infrastructure investments that will most directly benefit the farm (as opposed to the household) are investments that facilitate market entry. (Such types of investment might include roads and irrigation facilities.)
- The best "woman's" programs (in the sense that they would benefit women both directly and primarily) would be investments in utilities (water, sewage, electricity) and the making available of inexpensive over-the-counter medicines.<sup>2</sup>
- It is of direct benefit to small farmers to establish markets for crops, especially new (as opposed to traditional) crops.
- Small farmers respond so rapidly to changes in conditions that research aimed at increasing productivity of existing farming practices doesn't make sense-- results will be out of date before they can be acted upon.
- On the other hand, research that defines new crops for assured markets may be acted upon immediately.

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<sup>1</sup> Remember, small farmers respond to opportunities.

<sup>2</sup> Such investments increase labor productivity of the female farmer/householder. She will invest the labor hours thus made available to her in movement along the hierarchy, typically in ways that increase her personal income.

- Key to rural households is diversification. Households at the subsistence level diversify to decrease the risk of failure. Households sure of subsistence will diversify (and take great risks) to move to a higher-level goal.
- Thus, almost any project that increases the options available to rural households will be of benefit, if and only if those households are above the subsistence level.

## **B. SUMMARY OF STUDY METHODOLOGY**

This study involved a literature review, a synthesis of the literature deemed relevant, and then a comparison of our study results to the other contemporary literature.

All plausible data bases were queried to yield a universe of several thousand studies, representing multiple perspectives and disciplines. That extensive universe was screened to select those studies relevant to the topic and which relied on direct observation (rather than questionnaires and surveys). The theory behind this method was that the best predictor of attitudes is behavior, not responses to hypothetical questions.

A universe of 268 papers met the study criteria and were extensively reviewed. That universe embraced a variety of disciplines, and virtually the full range of cultures and agricultural practices.

After months of thought and labor, the conclusions presented in this report were developed. The literature was then rereviewed to ensure the somewhat startling findings were consistent with all of the studies. Such was found to be the case.

Subsequently, the study results were examined for consistency with other elements of the contemporary literature.

## **C. SUMMARY OF CONCLUSIONS**

All of the literature reviewed either supported or failed to refute the following conclusions:

1. The proper unit of analysis is the rural household (and householder), not the small farm. The ideal "small farmer," rooted to the land and selected crops, is a myth. All populations are eager to enter the market economy.
2. There is a taxonomy of householder production, based on the expected results of labor, that accurately reflects his/her role as a member of a highly diversified "corporate conglomerate."
3. There is a taxonomy of householder goals that accurately reflects their aspirations. That taxonomy establishes five levels of aspiration, with achievement of the lower (or perhaps earlier) objectives being a requirement for movement to the next.

It is our startling conclusion that the above perspectives and taxonomy extend universally.

1. The proper unit of analysis is the rural household (and householder), not the small farm. The ideal "small farmer," rooted to the land and selected crops, is a myth. All populations are eager to enter the market economy.

We conclude that Smith (1979) and Fegan (1979) were right on target in their characterization of the rural household.

In his widely cited piece, Smith rejects the terms "peasant" and "small farmer" in favor of the phrase "multi-occupational petty producers."

Fegan calls the small farm household a diversified family conglomerate:

"I criticize models of the economic behavior of small farmers, and offer up as an alternative a model of a household that is a diversified family conglomerate that allocates its resources between a number of competing income producing uses that have different costs, benefits, risks, etc., with the minimum aim of ensuring the short run survival of the present unit, and the larger goal of acquiring capital and setting up the several households of its children." [362-363]

Our data support this view of the rural household. Moreover, we clarify the view as follows:

- a. The household is best viewed as a diversified conglomerate, and is a proper unit of analysis.
  - b. Within a conglomerate the individual corporations have potentially conflicting objectives that may or may not ultimately be subordinated to the overarching objectives of the conglomerate. Similarly, the male and female heads of household have differing objectives which they may or may not fully subordinate to the objectives of "the household."
  - c. The households described are all of the rural poor. Distinctions between landed and unlanded, those currently farming and those not currently farming, are not relevant to attitudes and behavior. All rural poor households typically exhibit a wide range of behaviors to above all establish a secure domestic economy and to as rapidly as possible enter the market economy.
2. There is a taxonomy, based on the expected result of householder labor, that accurately reflects the rural householder's role as a member of a highly diversified "corporate conglomerate."

The small-farm economy can be characterized in terms of the intended result of householder labor. This yields four sectors of the household economy:

- 1) household production of goods and services for home consumption;

- 2) cash crop farming for market sales;
- 3) extra-agricultural businesses, the self-employed production of goods and services for sale; and
- 4) off-farm labor.

All small-farm households engage in the first sector-- production for home consumption. It is theoretically conceivable that a subsistence household might carry on no other economic activity. First-world observers of third-world farming carry such a stereotype in their heads. However, the literature shows no communities where that was the norm.

Most farm households engage in all four economic sectors, as a response to limited opportunities in any one sector or as a deliberate strategy of diversification and risk minimization.

To clarify the nature of the productive activities within each sector, a more detailed breakdown of these sectors is included as Table I-1. This listing may not be exhaustive, but is at least illustrative.

It is almost always economically beneficial for small farmers, and especially women, to transfer labor from the subsistence sector of the household economy to other sectors, and for all small farmers to transfer labor from inherently risky agricultural production to non-agricultural (or at least not agriculturally self-employed) production. When opportunity permits, small farmers are seldom bound by traditional values that prevent them from moving out of their houses and fields with alacrity and enthusiasm.

3. There is a taxonomy that accurately reflects rural householder aspirations. That taxonomy establishes five levels of aspiration, with achievement of the lower (or perhaps earlier) objectives being a requirement for movement to the next.

There is a clear pattern of behavior, universal among small farmers (and possibly among all peoples). We infer from this pattern the aspirations of the small-farm household, shown in Table I-2.

The salient indicator at each level is the time frame of financial security. There is a clear pattern of movement from day-to-day survival, into ensuring survival over the course of life, into ensuring that the next generation will have a quality of life exceeding that of its parents.

The only sure indication that a household has reached any given level is its tendency to invest in activities that lead to the next level. It is at such times that what appears to be high risk behavior is most often found. For example, planting novel cash crops to strive for level 5, or starting a transport business to strive for level 6.

At any given level of the goal hierarchy the household will not take risks that endanger continuance at its current level in the goal hierarchy. The household will take extravagant risks with marginal resources in an attempt to advance to a higher level.

**TABLE I-1**  
**CLARIFICATION OF THE FOUR "SECTORS"**  
**OF RURAL HOUSEHOLD ACTIVITIES**

1. Household production for home consumption.
  - a. subsistence farming
  - b. household manufacturing, food processing, etc.
  - c. maintenance and repair of household possessions and domestic capital
  - d. supplementary hunting, fishing, and gathering (food and fuel)
  - e. personal services, including child rearing
2. Cash crop farming for market sales.
  - a. cash crops for extra-local markets
  - b. staple or subsistence crops for local market sales or barter
  - c. auxiliary non-staples for local markets (livestock, poultry, herbs and vegetables)
3. Self-employed non-agricultural business activities.
 

Manufacturing

  - a. first stage processing of cash crops
  - b. final stage processing of traditional goods for street or market sales to local consumers (e.g., chuno, tortillas, etc.)
  - c. handicraft production of artisanal goods

Services

  - d. front room stores
  - e. market trading
  - f. transportation services (from backpack to bike and burro to motorized vehicles)
  - g. rental of household capital stock (animals, farm equipment, tv viewing, etc)
  - h. rental of housing to tenants, boarders, for cash or labor services
4. Off-farm labor.
  - a. Non-wage labor to fulfill obligations to landlords, governments, community organizations, etc.
  - b. day labor, occasional or seasonal, on other local farms
  - c. local household service work
  - d. contract or seasonal migrant labor (mines, harvesting, urban domestic service, etc.)
  - e. local non-agricultural employment (processing plants, etc.)
  - f. semi-permanent employment on large estates, plantations, etc.
  - g. educationally qualified non-farm occupations (teacher, government official, etc.)

**TABLE I-2  
HIERARCHY OF SMALL-FARMER GOALS**

1. Escape from subordination to an economic superordinate (e.g., from rentier, landlord, patriarch, matriarch).  
**(Dependent membership in another's domestic economy.)**
2. Establish a viable household economy, once the culturally appropriate age and marital status has been attained.  
**(Establish a household.)**
3. Ensure economic security for the lifetime of the household: protection of income from capricious forces or actions. (This relates to protection of income from acts of nature and of man. Activities protecting against the former include investment in agricultural capital such as irrigation, shifting labor out of agriculture, etc. Activities protecting against the caprice of one's fellows include economic diversification, acting as warrior, and much apparently leisure-time social behavior.)  
**(Survival of the household throughout the productive years of the householders.)**
4. Accumulate enough domestic capital to permit establishing the next generation of households ("in the style to which they have become accustomed") and permit continuation of the present household beyond the loss of most of its dependent labor.  
**(Survival of the householders before and after their productive years.)**
5. Labor productivity sufficient to permit substantial rise in the material standard of living, and investment to ensure that increase in standard of living carries into the next generation.  
**(Survival of the generations.)**

#### D. SUMMARY OF FINDINGS

We summarize our findings in terms of two types of literature: (1) the literature that specifically portrays small-farmer behavior (and which was the focus of this study), and (2) other contemporary development literature.<sup>3</sup>

##### 1. Findings from the 268 studies that were the subject of this analysis

We discuss here a representative sample of the literature, to demonstrate the apparent validity of our paradigm to various regions, cultures, and farming practices.

##### a. Smith (1979) and Fegan (1979)

As noted, Smith and Fegan in essence anticipated our paradigm, and clearly established that the small farmer is not a small farmer, but a "diversified mini-conglomerate."

##### b. Ashby

Based on field work in Nepal, Ashby classified farmers in terms of their sources of income, and noted that the key variables affecting small farmers were the extent of market integration and the type of linkage to markets. This sensitivity to markets was a further clue to our paradigm. Ashby's four-part typology was:

1. large-farm commercial (more than one hectare, at least 50% of income from cash sales);
2. small-farm commercial (less than one hectare, at least 50% of income from cash sales of livestock);
3. part-time farmers (at least 33% of income from off-farm activities);
4. subsistence farmers (little or no cash income).

The substantial diversity of activity demonstrated by even the smallest farmers (category 4 was in practice close to a null set) was again suggestive if not conclusive.

##### c. Berger: Study in the Peruvian Sierra

As soon as it became clear to subsistence farmers that they could make more money and have more household security as wage laborers, they gave up their traditional land holdings and moved to where the jobs were.

The author makes much of the fact that these were now "landless farmers." In fact, they were rural poor who found that the asset value of their small holdings was not sufficient to keep them "on the farm."

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<sup>3</sup> Bibliographies of the two types of literature are presented in Appendices A and B, respectively.

Subsistence farmers in the Peruvian Sierra were made aware of job opportunities that required relocation. The male householders typically "tested the water" by temporarily relocating at the job site, leaving the rest of the family to continue subsistence farming. These households could not practically continue as economically diversified economic units, because their land was too far from the job sites.

After a time, typically years, of "commuting," the householders gave up farming entirely and relocated the household near the job sites.

This study illustrates the willingness of the small farmer to adopt new behavior to aspire to level four, after the household has reasonable assurance that level three is not being risked.

d. Kusterer: Peru

A market was established for a cash crop that was new to these Peruvian farmers: asparagus.

One group of landless plantation workers was legally obligated to farm asparagus as part of a collective. They received a wage but were not certain of profits. These households shifted as much of their labor as possible into domestic subsistence economies-- which they had to establish de novo.

The small farmers in the same region found that there was little market for cash crops other than asparagus. They immediately and enthusiastically shifted into farming asparagus.

Both groups of farmers demonstrated the willingness and ability to quickly and enthusiastically change from traditional ways to achieve economic security and betterment.

Those who had previously been plantation workers innovatively established "level 2" households. The local farmers responded to the market as appropriate to ensure continuance of "level 3."

Note that in both (and all) cases, the best indicator of achieving security of a given level of household goal is the investment-- often innovative or risky-- in the next level.

e. Fegan: Rice farmers in the Phillipines

Two types of rice farmers were observed: share croppers and leaseholders. Both were engaged in behavior to ensure "level 4" and begin investment in level four. But the behaviors were radically different.

Sharecroppers invested an absolute minimum of time in the (sharecropped) rice production. They derived their primary income as wage laborers, typically remote from the farm. They used the sharecrop arrangement primarily to establish a home site.

Note how rational this behavior is in terms of risk minimizing. The only certain result from share cropping is the home site. Income depends on the weather and the market. Having obtained the home, wage labor is the surer way to go.

The leaseholders, on the other hand, did not seek off-farm employment, but concentrated their energies on the rice harvest. Having already gone at risk with the leasehold, their energies were properly invested in maximizing return on that investment.

f. Binford: Small Farmers in Mexico

This is perhaps the best of the studies reviewed, in terms of quality of work and demonstrating our paradigm.

Binford studied years of development efforts among small farmers in Mexico. Initially, these farmers were typically at level 2. Ultimately, and largely in spite of government development programs, the farmers were typically at level 4 and beginning investment in level 5.

The traditional cash crops were rice and sugar. The government sponsored these traditional crops, and provided irrigation. However, the farmers were expected to pay small fees for the irrigation.

Apparently in response to these government programs, farmers shifted their farm labor into non-sponsored crops on non-irrigated plots. They in essence returned to subsistence farming rather than go at risk with a government program. And, increasingly over the years, labor was shifted into the non-farm wage economy.

In the late 1960's, before the government sponsorship of rice and sugar, only 25% of the heads of household engaged in off-farm activity as a principal source of income.

In the late 1970's, 90% of the heads of household worked for wages as their principal economic activity. Farming was continued as a supplementary household activity, but wages were being invested in education of the children. Education to ensure that the next generation wouldn't have to be farmers.

g. Barclay: Mumias Sugar Outgrowers, Kenya

In this well-known project, two-thousand small-farm households were provided the opportunity to supplement subsistence farming with sugar as a cash crop.

The result was that 90% of male heads of household chose to work at non-farm occupations and the women shifted their labor from subsistence to sugar farming.

These rational economic practices allowed the households to remain securely at level 4 and begin investment in level 5.

h. Little: Chamus Herders, Kenya

Traditional herders, who had given up millet farming in the 1930's (at which time it was a dietary supplement for both the livestock and the herders), the Chamus were accustomed to buying maize from local farmers. (Maize, as millet for earlier generations, was a dietary supplement for both the householders and their livestock.)

The government of Kenya established a maize monopoly, and maize was no longer available to the Chamus from local small farmers.

As a result, the Chamus established maize production capacity within their households.

We see this study as demonstrating the resilience of the rural householder, and adaptiveness, as required to maintain the level 3 household.

The response of the Chamus suggests that they are now firmly established in level 3. Therefore, we predict that as of now, the Chamus will be making substantial investments in level four: ensuring maintenance of their standard of living beyond and before the householder's productive years.

i. Burkins, Sexton: small farmers in New Guinea

These small farmers had no contact with the "developed" world until World War II. They had no possibility of entering a market economy until the late 1960's. It was a deliberate government policy to keep them out of the market economy, no doubt because of their "primitiveness."

It didn't work. The government couldn't keep these farmers from participating in the market economy.

Men, who had traditionally been warriors (a level three activity), outmigrated to obtain employment, or cultivated coffee as a cash crop. (In some cases stealing the plants, as they weren't supposed to be involved in the market economy.)

Women pooled their capital to establish businesses. For example, purchase of a truck to start a transport business, running a general store.

Note that this was a people that had for many generations established a successful "subsistence" agriculture, safely in level 3 and investing in 4. But, given a chance at a market economy, they responded quickly and radically.

The market economy promises a chance at level 4. These householders took that chance and will probably soon be investing in level 5.

j. Kusterer: Cakchikel farmers in Guatemala

The Cakchikel households enthusiastically invested capital and labor in a vegetable outgrower scheme, even for crops new to the area. They gave up seasonal migrant labor and production of less lucrative crops.

The Cakchikel did not give up subsistence production of corn, nor of small-scale production of crops and goods sold in the local market (e.g., poultry, eggs, herbs, flowers).

Dr. Kusterer personally observed the evolution of these households from level two, through level three, and into level four, based on access to a market economy.

These households were starting to educate their sons for non-agricultural employment when their villages were destroyed by an expanding guerrilla war.

k. Dillon: North Sumatra

This study illustrates the tenacity with which small farmers will diversify to minimize risk. The particular risk was that dependence upon the government wage was not consistent with level 3, which demands that the household be independent of caprice, nor with their aspirations, which were at level 4.

For three generations, the small farmers refused to be dependent solely upon wages, living and working on the government rubber plantation. They cleared plots on the fringes of the plantations, planted trees nursed from stolen plantation seeds, and established their own rice and rubber farms.

A new labor force, of plantation workers from another island, was imported. They established secure domestic economies, essentially at level 3.

The original populace shifted much of its household labor to cash farming of rubber and off-farm employment. Secure in level 4, they invested in educating the children for off-farm employment.

## 2. Review of other contemporary literature

Given the potential significance of our the study findings, after completion of the study an additional review was made of related development literature, in farm systems research and anthropology.

It is good science to undertake such a review. The study resulted in a model. The model is intended to explain and describe household behavior. Therefore, the research question was:

- (1) Does the small-farmer goal hierarchy explain and predict the behaviors described in this literature?

Unfortunately, much of the literature recommended for this analysis was not empirical. Hence, the real question was more like:

- (2) How do these findings compare with other current schools of thought?

To the extent that the other literature was empirical the answer to the first question was yes: the goal-hierarchy is predictive.

With regard to the second question-- comparing these findings with other schools of thought, we find that:

- Some farm systems researchers were calling for exactly the kind of perspective our findings provide.
- Anthropologists are beginning to recognize that there are more commonalties than differences among small farmers with regard to their attitudes toward the market economy.

Thus, the study findings seem to be supported by ancillary evidence, and compatible with the emerging views.

#### **E. SUMMARY OF RECOMMENDATIONS**

The potential policy and programmatic implications of this study are substantial. Further proof and demonstration are required.

Therefore, we recommend that the following parallel steps be undertaken:

1. Present these findings for critique by policy analysts and AID technical offices as well as researchers;
2. Review these findings in terms of their relevance to the "informal sector" and "micro-enterprise";
3. Develop and implement a research protocol to test predictions of the model against actual field experience (studying farmers already considered in the literature review);
4. Develop an idealized small farmer project-- a project that makes sense if the findings are correct;
5. If the results of earlier steps are positive, implement the project defined in step 4.

## **SECTION II INTRODUCTION**

### **A. GENERAL**

This report answers the questions: What does contemporary research tell us about small farmer perspectives on development? Are there aspects of the small farmer perspective, revealed by research but not generally known to development practitioners, that might be significant for the design of more effective development projects?

The research reported here was a literature review. A computer search was performed of seven bibliographic data bases looking for reports, publications, or dissertations on small farmers and development. The abstracts or descriptions of the thousands of works thus identified were screened to find 268 empirical works reporting the results of research based on long-term close contact with and observation of small farm families in development impacted environments. The 268 works represent 52 countries in all parts of the world. Most were anthropological or sociological studies, but other disciplines were also represented.

The small farm household was found to be a complex and diversified economic enterprise, engaged in many different kinds of productive activities, of which subsistence farming was only one not necessarily dominant part. These productive activities can be categorized into four sectors: the domestic production of goods and services for consumption in the household (which includes subsistence farming); the commercial production of farm crops and livestock for income generation through exchange out of the household; the homebased self-employed production of nonfarm goods and services for income generation through exchange; and off-farm wage labor.

Small farmers allocate labor resources among the four sectors partly according to the costs and benefits they perceive associated with each, with the frequent result that when the opportunity structure permits, they freely shift labor out of traditional home and farm work.

In making these decisions, they are guided as well by their economic development goals. A hierarchy of five economic development goals is described, each becoming effective only when the one below it begins to be met. Moving through these five goals, small farmers first put highest priority on establishing and securing their household base with its domestic economy. Later, domestic subsistence production takes on a much lower priority, as farmers put highest priority on activities that produce an independent income for all adult household members.

As a result of this increased emphasis on income-earning productive activities, successful small farmers reaching level five in the hierarchy of economic development goals cease to be small farmers. From the small farmer perspective, economic development ultimately means transcending small farmer status, either by becoming large farmers (rarely), or (more often) by becoming part-time farmers whose primary economic activity is elsewhere.

Among the more important implications for development practitioners of this new understanding of the small farmer perspective on development are these: 1) small farmers at the lowest level cannot benefit from loans or credit projects, since they invest labor primarily in the domestic sector which provide no income with which to repay, but can benefit from projects which increase the productivity of domestic labor ; and 2) small farmers beyond the lowest level can pursue economic development by taking advantage of almost any expansion or diversification in the rural markets for their products or their labor.

## **B. WHY THE FINDINGS OF THIS REPORT MAY BE IMPORTANT**

If the study findings are valid, this report is important because those findings suggest that:

1. Conventional Views of Small Farmers May Not Be Valid;
2. Conventional Approaches to Improving the Lot of the Small Farmer May Not Be Valid.

### **1. Conventional Views of Small Farmers May Not Be Valid**

Our findings suggest that some conventional views of the small farmer may not be not valid, and the following characterizations of the small farmer are appropriate:

- Small farmers are eager to enter the market economy. They are the "micro-entrepreneurs" in rural areas.
- The proper unit of analysis is the household, which is best viewed as a "diversified conglomerate." The individual householders can be viewed as quasi-independent "corporations" within the conglomerate.
- Small farmers are not distinguishable from other rural poor. Thus, we use the terms "small farmer" and "rural poor householder" interchangeably.
- Small-farm households (and householders) exhibit hierarchical goal-seeking behavior. The driving force underlying that hierarchy comprises:
  1. Extending economic security along a time line-- that is, from day-to-day (e.g., hunter/gatherers) to generation-to-generation (e.g., educating children to ensure that the next generation has a higher standard of living);
  2. Minimizing risk of losing the level of economic success already achieved.
- That goal-seeking behavior can be expressed in five distinct levels of objectives. These levels (and behaviors) transcend cultural and geographic boundaries-- they appear to be universals. The hierarchy of small farmer goals is presented as Table I-2 (page 9).

- Small-farmer behavior appears completely rational when viewed from the perspective that he (she) is protecting current position in the hierarchy or attempting an advance to the next level.
- A successful small farmer will ensure that the next generation will include at least some who are not small farmers. In fact, the typical successful small farmers are no longer primarily farmers.

The small farmer innovates and take risks as appropriate to the situation. The anthropologists, not the small farmers, are the conservators of tradition.

## 2. Conventional Approaches to Improving the Lot of the Small Farmer May Not Be Valid

If our conclusions regarding the attitudes and behavior of small farmers are correct, then conventional approaches to improving the lot of the small farmer are not valid. In which case:

- Loans to subsistence farmers-- those at early levels in our goal hierarchy-- don't make sense.
- Nor do most government programs: the small farmer is not going to risk his livelihood on the ability of the government to continue a program.
- On the other hand, almost any investment in a rural area will probably increase the effective income of households in that area.<sup>4</sup>
- The programs that will most clearly and directly benefit the smallest (i.e., subsistence) farmers are those that will improve the productivity of householder labor.
- Such programs include investments in infrastructure.
- Infrastructure investments that will most directly benefit the farm (as opposed to the household) are investments that facilitate market entry. (Such types of investment might include roads and irrigation facilities.)
- The best "woman's" programs (in the sense that they would benefit women both directly and primarily) would be investments in utilities (water, sewage, electricity) and the making available of inexpensive over-the-counter medicines.<sup>5</sup>
- It is of direct benefit to small farmers to establish markets for crops, especially new (as opposed to traditional) crops.

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<sup>4</sup> Remember, small farmers respond to opportunities.

<sup>5</sup> Such investments increase labor productivity of the female farmer/householder. She will invest the labor hours thus made available to her in movement along the hierarchy, typically in ways that increase her personal income.

- Small farmers respond so rapidly to changes in conditions that research aimed at increasing productivity of existing farming practices doesn't make sense-- results will be out of date before they can be acted upon.
- On the other hand, research that defines new crops for assured markets may be acted upon immediately.
- Key to rural households is diversification. Households at the subsistence level diversify to decrease the risk of failure. Households sure of subsistence will diversify (and take great risks) to move to a higher-level goal.
- Thus, almost any project that increases the options available to rural households will be of benefit, if and only if those households are above the subsistence level.

### **C. SUMMARY OF STUDY METHODOLOGY**

This study involved a literature review, a synthesis of the literature deemed relevant, and then a comparison of our study results to the other contemporary literature.

All plausible data bases were queried to yield a universe of several thousand studies, representing multiple perspectives and disciplines. That extensive universe was screened to select those studies relevant to the topic and which relied on direct observation (rather than questionnaires and surveys). The theory behind this method was that the best predictor of attitudes is behavior, not responses to hypothetical questions.

A universe of 268 papers met the study criteria and were extensively reviewed. That universe embraced a variety of disciplines, and virtually the full range of cultures and agricultural practices.

After months of thought and labor, the conclusions presented in this report were developed. The literature was then rereviewed to ensure the somewhat startling findings were consistent with all of the studies.

Subsequently, the study results were examined for consistency with other elements of the contemporary literature.

## **SECTION III RESEARCH METHODOLOGY**

### **A. SUMMARY**

This study involved a literature review, a synthesis of the literature deemed relevant, and then a comparison of our study results to the other contemporary literature.

All plausible data bases were queried to yield a universe of several thousand studies, representing multiple perspectives and disciplines. That extensive universe was screened to select those studies relevant to the topic and which relied on direct observation (rather than questionnaires and surveys). The theory behind this method was that the best predictor of attitudes is behavior, not responses to hypothetical questions.

A universe of 268 papers met the study criteria and were extensively reviewed. That universe embraced a variety of disciplines, and virtually the full range of cultures and agricultural practices.

After months of thought and labor, the conclusions presented in this report were developed. The literature was then rereviewed to ensure the somewhat startling findings were consistent with all of the studies. Such was found to be the case.

Subsequently, the study results were examined for consistency with other elements of the contemporary literature. They were.

### **B. BASIC STUDY QUESTIONS**

The questions posed for this research were:

What does contemporary research have to tell us about small farmer perspectives on development? Are there aspects of the small farmer viewpoint, revealed by research but not generally used by development practitioners, that might be significant for the design of more effective development projects?

Are long-standing assumptions about the uniformly positive effects on farm households of increased farm production and income shared by small farmers themselves?

These are the kinds of questions that this research set out to answer.

### **C. RESEARCH METHOD**

To address these issues, a literature review was designed. A computerized literature search, designed to be as inclusive as possible, combed seven bibliographic databases looking for studies in less developed countries of small farmers and development. Of the thousands of potential studies identified, 268 were selected on the basis of their abstracts or descriptions for inclusion in this review. To be included in this review, a study had to be an empirical piece reporting the results of long-term work involving close contact with and observation of small farmers and their families in

development impacted environments. Most of these studies were from the field of development anthropology, but sociology, human ecology, political economics, agriculture, agricultural economics, and political science were also represented.

The 268 studies included in this research represent more than one hundred different regions or cultures in 52 countries in the less developed world. The heaviest concentrations are in Latin America, especially Mexico, and in east and west Africa, but the distribution is worldwide. Also included are the Caribbean, the Middle East, peripheral Europe, all parts of Asia except mainland China, and the Pacific islands.

#### **D. STUDY DESIGN AND METHODOLOGY**

Study design and methodology is discussed in terms of:

1. Choice of indicators;
2. The literature review;
3. Data synthesis;
4. Review of other contemporary literature.

##### **1. Small Farmer Perspectives: Choosing Indicators**

The research decision that more than any other has shaped the course of the research was the choice to infer small farmer preferences by looking at what they have done rather than what they might say to an interviewer. In other words, small farmer actions are taken to speak for them more loudly than words.

Why was such a choice made? First and most important, because behavior is a more valid indicator of personal choices than answers to hypothetical questions--especially when those questions are about development scenarios not familiar to small farmers. In survey research, questions about attitudes that subjects would have in situations that they have not faced are notoriously poor indicators of their behavior when the situation does arise. Thus, market researchers, whose future livelihood depends on their ability to discover real and operant attitudes, have long since abandoned any such technique.

Second, it was assumed, correctly as it turned out, that little research asking peasants about their development preferences had been conducted, so that a study based on a review of that kind of literature would yield little.

But the choice to infer preferred options from actual options taken is problematic, regardless of whether or not it was the best choice available. Most significantly, it accepts as a given the social and economic milieu within which the small farmer is operating. Small farmer choices are not only an expression of personal values, they are also a considered response to the available opportunities. These opportunities are defined and limited by the context of socioeconomic institutions within which they operate, the context which has also served to shape those personal values.

So, it may be argued that actions are not so much a result of preferences as they are a result of making the most of a bad set of choices. There is some truth in this. Small farmers all over the world are operating in an environment that is not primarily designed to serve them. Yet, precisely because this is so universally true, and so universally manifest in the land tenure, agricultural credit, and commodity pricing policies that shape the small farmer's world, small farmers won't respond accurately to hypothetical questions about a hypothetical world. They will, however, act in accord with their perceived self interest. And, from that self interest, one can infer values and perspectives.

So the choice was to infer small farmer perspectives from their visions of a utopian existence which they have never known, or from their actions in a world which they know only too well. Neither course is fully satisfactory, neither one promises to tell us with certainty what small farmers "really want," but the latter choice is the better one.

The second important operational choice point lay in setting the working definition of the term small farmer. The research concerns seemed to call for an inclusive rather than a narrow definition, so the choice was to call all poor rural agriculturalists small farmers. Traditional distinctions -- between peasants and farmers, subsistence and commercial, landed and landless -- were noted when they came up in the literature, but not assumed a priori to rule anyone outside the concerns of the research. Farmer is also often used consciously or unconsciously as a gender-specific term reserved to males, with women farmers called farm women or farm wives. That practice makes it harder to understand who farmers are and what farmers do, and is not followed here.

## 2. The Literature Review

The research project was conceived as a computer-based review of all available empirical studies of small farmers since the various computerized data bases were put together, most in the mid-1970's. The data bases used were: Dissertation Abstracts International, AGRIS International (the FAO database), Sociological Abstracts, CAB Abstracts (Commonwealth Agricultural Bureau), Dissertation Abstracts On-line, PAIS International (Public Affairs International Service), and AGRICOLA (National Agricultural Library). The search design strategy, put together by AID Librarian Karen Keyes, was deliberately inclusive. Basically entries were selected if they referred to small farmers (or smallholders, peasants, etc.) and also development or change.

Because of the nature of the data bases, and because (why not admit) of the state of literature in the field of development, the initial searches were not too useful in finding detailed empirical studies. In the field of development, descriptions of projects, comments on development policies, and conceptual works far outnumber empirical studies of the people actually experiencing the development. The short format of articles or papers precludes the sort of deep information needed for this study, so many of these, even when based on a study that would have been useful, did not contain usable information. With the exception of a few articles focusing precisely on the topic of this study, only books, monographs, and dissertations proved useful in the end.

The anthropology of development, the primary field of most of the research needed, has no computerized data base of its own and was peripheral to the central concerns of the agricultural databases. Frustrated over the lack of this kind of work in most of the computer lists, Dr. Kusterer finally made a manual search through the

abstracts of every U.S. dissertation since 1976 listed in Dissertation Abstracts On-line as Cultural Anthropology (a rubric that included many rural sociology, human ecology, and agricultural economics dissertations as well). Through this means, and through the traditional precomputer route tracking down the trail of footnotes and references (the source, ultimately, of about 10% of the entries in the bibliography), a reasonably exhaustive literature review was accomplished.

Through the services and resources of the AID Library, the Library of Congress, and the National Agricultural Library, it was possible in Washington to get access to all the items needed either in actual or microfiche versions, something that could not be said of such an international collection in many other places in the world.

### 3. From Singularities to Synthesis

The hundreds of local surveys and ethnographies surveyed here tell hundreds of singular stories. In each case, history, culture, and the influence of the international economy vary. Months of reading, noting, rereading, and categorizing these studies produced little but descriptive summaries along the lines of "some studies find abc, but on the other hand other studies find xyz." Eventually, though, persistence paid off and the conceptualization of the small farm economy's four sectors (refer to Section IV) and the small farmers' hierarchy of development goals (refer to Section V) emerged abductively from the process of poring over the studies. Once this conceptual lens had been crafted, then all of the studies made sense as illustrations, under different conditions, of the same basic principles. The result, essentially a paradigm of the small farmer perspective on economic development, may seem short and simple, but the route that arrived at it was long and complex.

It is important to note that the findings and conclusions presented in this report were inferred from the literature. There was no preconception of such results. Indeed the results startled the author(s). But those results seem to hold up well against the gedanken tests we can devise, and against the literature subsequently reviewed (refer to the following paragraph).

### 4. Review of Other Contemporary Development Literature

Given the potential significance of the study findings, after completion of the study and additional review was made of related development literature, in farms systems research and anthropology.

Our study approach was to use the findings (and especially the goal hierarchy) to see if these models met the test of a good model: that is, the empirical data presented in this literature was examined to see if the study model described, explained, and predicted those results.

As this literature was not extensively empirical, the findings were also considered in terms of compatibility with the perspectives of other researchers-- the way in which they looked at and took hold of the issues.

## **SECTION IV DEVELOPMENT AND THE SMALL-FARMER ECONOMY**

### **A. THE SMALL FARMER HOUSEHOLD**

A theme running through recent studies is a call for a more sophisticated understanding of the economic activities of small farmer or peasant households. Typically, this is put in terms that reject the traditional terms of either peasant or small farmer, as misleading oversimplifications of a much more complex economic reality. In a widely cited piece, Smith [1979] rejects both terms in favor of the clumsy phrase, "multi-occupational petty producers." Fegan [1979] calls the small farm household a diversified family conglomerate:

"I criticize models of the economic behavior of small farmers, and offer up as an alternative a model of a household that is a diversified family conglomerate that allocates its resources between a number of competing income producing uses that have different costs, benefits, risks, etc., with the minimum aim of ensuring the short run survival of the present unit, and the larger goal of acquiring capital and setting up the several households of its children." [362-363]

This perspective on the small farmer household and its economic activity, which emerged in the literature in the late 1970's and has come to dominate current anthropological work, results partly from empirical observation of the income-generating activities of the rural poor and partly from the new WID-oriented focus on the productive activities of women and children in the household. With this perspective in mind, the small farm household in this study will be defined in a way slightly different from the development literature tradition. Small here refers neither to household size nor land extension, but to the scale of economic activity, of income generation and capital accumulation. Small, in other words, means mainly poor, or at least not rich or middle class. Farm here does not necessarily refer to a piece of independently worked land, although that is usually present, but refers to a household that is physically located in a rural setting and economically located in the agricultural sector. Thus landed and landless cease to be relevant categories. Almost all small farm households have access to at least some land (the dwelling site) and no small farm households engage exclusively in farming their own land as their only economic activity. Household, a term natural to societies where the dwelling and consuming units are identical, is difficult to define in other societies, but is used here to refer to the food producing and consuming unit when that unit differs, as it often does in rural Africa, from the residential or sleeping unit. Small farmer in this study will refer to any adult member of a small farm household, without further reference to gender or position in the household.

### **B. SMALL FARMER ECONOMIC ACTIVITIES**

Several typologies have been used in the anthropological literature to try and develop meaningful categories of small farm households. Ashby [1980, p 101] presents the following table of the most frequently used criteria for such categorization:

	Stinch- combe 1961	Galeski 1968	Sorokin 1930	Chayanov 1966 1966	Wolf 1955,	Paige 1975
<b>Major Criterion</b>						
<b>1. Emphasized Labor Use:</b>						
Self-Sufficient Part-Time	*	*	*	*	*	*
<b>2. Exchange:</b>						
Production for Own consumption Market	*	*	*	*	*	*
<b>3. Land Tenure</b>						
Agricultural Production Activity	*	*	*	*	*	*

The authors that she cites have used these criteria, that seem most theoretically and empirically important, to set up types of peasants (Wolf and Chayanov) or types of small farms (Paige). Ashby herself goes on to use exploratory factor analysis techniques, based on these variables, to create an empirically-based typology of small farms in the hill country of Nepal, where she conducted her field work in the late 1970's. This empirical analysis found that the most important variables affecting small farms were the extent of market integration, and the type of linkage to markets (cash crop production, cash livestock sales, off farm employment). The result was a typology of four types of small farms: large farm commercial (1 Ha or more, 50% or more of income from cash crop sales); small farm commercial (less than 1 Ha., 50% or more of income from cash livestock sales); part-time (33% or more of income from off farm activities); and subsistence (little or no cash earnings). What appears more significant about her work in the context of other work in this review, however, is the fact that her farm types are based on clusters, and that almost all farm units had all types of income and market integration mechanisms present. In other words, almost all farm households had income from cash crop, cash livestock, off farm earnings, and subsistence farming activities. Her typology is based on the relative significance of each income source in the total earning of each farm household. But, her own data more clearly demonstrates the multi-occupational, or mini conglomerate nature of each small farm household than it does demonstrate the existence of clearly distinct types of small farms. For instance, she looked at the speed and extent of adoption of high value hybrid rice and corn seed, and found no greatly significant variation among her farm types. All grew the new varieties, and subsistence farms trailed large commercial farms in adoption of the new seeds by an average of only three years.

Dillon [1983] studied the labor allocations of small holder beneficiaries of a rubber and rice smallholder development project sponsored by the World Bank in North Sumatra. These households were headed either by "former plantation workers" or "former peasants," meaning that project participants had previously received a majority of their income either from off farm wage labor or from subsistence and local-market cash farm production. As a result of the project, male household heads now spent 75% of their time in rubber production and 19% in off-farm labor, leaving only 6% for household work and subsistence rice farming. Women and children likewise spent almost half their time in rubber production, but since they worked many more hours per month than household heads (169 hours for women and 157 hours for children compared to 135 for household heads), almost one third of family labor time was still devoted to rice, livestock, and household work activities. Though it was a much smaller proportion of their total labor time, women also managed to contribute about one-third of the family's off- farm wage labor work. [p. 78-79] So even these small farmer beneficiaries of a commercial farming project still spent almost half their time in either subsistence farming activities on the one hand or off-farm wage work on the other.

A basis for understanding the small farmers' perspective on development, therefore, is a clearer picture of the multiple occupations that form the economic activities of the members of a small farm household's mini conglomerate.

#### **C. FOUR SECTORS OF THE FARM ECONOMY**

There are four sectors to the small farm economy: 1) household production of goods and services for home consumption; 2) cash crop farming for market sales; 3) extra- agricultural businesses, the self-employed production of goods and services for sale; and 4) off-farm labor. All small farm households engage in the first sector, production for home consumption. It is theoretically conceivable that a subsistence farm might carry on no other economic activity, and first world observers of third world farming carry such a stereotype in their heads, but there were virtually no examples in this literature of farm communities where that degree of farm self sufficiency was the norm. Most farm households engage in all three of the other economic sectors, either as a response to limited opportunities in any one of these sectors or as a deliberate strategy of diversification and risk minimization.

To clarify and specify the nature of the productive activities in each sector, here is a list of the kinds of work included in each. This list reflects the variety of possibilities found in this literature and is intended to be as inclusive as possible, but probably should not be considered exhaustive.

**TABLE IV-1**  
**CLARIFICATION OF THE FOUR "SECTORS"**  
**OF RURAL HOUSEHOLD ACTIVITIES**

1. Household production for home consumption.
  - a. subsistence farming
  - b. household manufacturing, food processing, etc.
  - c. maintenance and repair of household possessions and domestic capital
  - d. supplementary hunting, fishing, and gathering (food and fuel)
  - e. personal services, including child rearing
2. Cash crop farming for market sales.
  - a. cash crops for extra-local markets
  - b. staple or subsistence crops for local market sales or barter
  - c. auxiliary non-staples for local markets (livestock, poultry, herbs and vegetables)
3. Self-employed non-agricultural business activities.
 

Manufacturing

  - a. first stage processing of cash crops.
  - b. final stage processing of traditional goods for street or market sales to local consumers (e.g., chuno, tortillas, etc)
  - c. handicraft production of artisanal goods

Services

  - d. front room stores
  - e. market trading
  - f. transportation services (from backpack to bike and burro to motorized vehicles)
  - g. rental of household capital stock (animals, farm equipment, tv viewing, etc)
  - h. rental of housing to tenants, boarders, for cash or labor services
4. Off-farm labor.
  - a. Non-wage labor to fulfill obligations to landlords, governments, community organizations, etc.
  - b. day labor, occasional or seasonal, on other local farms
  - c. local household service work
  - d. contract or seasonal migrant labor (mines, harvesting, urban domestic service, etc.)
  - e. local non-agricultural employment (processing plants, etc.)
  - f. semi-permanent employment on large estates, plantations, etc.
  - g. educationally qualified non-farm occupations (teacher, government official, etc.)

#### D. THE SMALL FARMER AND DEVELOPMENT

From the point of view of a society or community, economic development consists essentially in the increased productivity of labor activity, resulting usually either from increased investments or new organizational forms for that labor to work with. From the point of view of an individual, economic development consists of greater return on assets.<sup>6</sup> The members of small farm households in the developing world are involved in a variety of labor contexts, with varying levels of productivity and varying cost-benefit ratios affecting the individual's return from that labor. This literature review suggests that the assumptions of "homo economicus" or "peasant rationality" are reasonable enough guides to the development preferences of small farmers --nothing new here -- but that the basically patriarchal internal relations of small farm households and the mini-conglomerate nature of the household as an economic unit make it extremely complicated for anyone, whether outsider social scientist or insider small farmer, to figure out in a particular instance what the most economically rational labor allocation would be for any individual small farm man or woman.

Nevertheless it is safe to say that it is almost always economically beneficial for small farm women in particular to transfer labor from the subsistence sector of the household economy to the other three sectors, and for all small farmers to transfer labor from inherently risky agricultural production to non-agricultural (or at least not agriculturally self-employed) production. These case studies show that in general, when the structure of opportunity permits such transfers, small farmers are seldom bound by any traditionalistic values that prevent them from moving out of their houses and out of their fields with great alacrity and enthusiasm. But this anticipates the major conclusions of this study, which are demonstrated in more detail later on.

#### E. FINDINGS

All of the literature reviewed either supported or failed to refute the conclusions that:

1. The proper unit of analysis is the rural household (and householder), not the small farm. The ideal "small farmer," rooted to the land and selected crops, is a myth. All populations are eager to enter the market economy.
  2. There is a taxonomy of householder production, based on the expected results of labor, that accurately reflects his/her role as a member of a highly diversified "corporate conglomerate."
1. The proper unit of analysis is the rural household (and householder), not the small farm. The ideal "small farmer," rooted to the land and selected crops, is a myth. All populations are eager to enter the market economy.

We conclude that Smith (1979) and Fegan (1979) were right on target in their characterization of the rural household.

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<sup>6</sup> The primary, and only discretionary, asset of the small farmer is typically his/her labor. However, one finds shrewd capital/labor tradeoffs.

In his widely cited piece, Smith rejects the terms "peasant" and "small farmer" in favor of the phrase "multi-occupational petty producers."

Fegan calls the small farm household a diversified family conglomerate:

"I criticize models of the economic behavior of small farmers, and offer up as an alternative a model of a household that is a diversified family conglomerate that allocates its resources between a number of competing income producing uses that have different costs, benefits, risks, etc., with the minimum aim of ensuring the short run survival of the present unit, and the larger goal of acquiring capital and setting up the several households of its children." [362-363]

Our data support this view of the rural household. Moreover, we clarify the view as follows:

- The household is best viewed as a diversified conglomerate, and is a proper unit of analysis.
  - Within a conglomerate the individual corporations have potentially conflicting objectives that may or may not ultimately be subordinated to the overarching objectives of the conglomerate. Similarly, the male and female heads of household have differing objectives which they may or may not fully subordinate to the objectives of "the household."
  - The households described are all of the rural poor. Distinctions between landed and unlanded, those currently farming and those not currently farming, are not relevant to attitudes and behavior. All rural poor households typically exhibit a wide range of behaviors to above all establish a secure domestic economy and to as rapidly as possible enter the market economy.
2. There is a taxonomy, based on the expected result of householder labor, that accurately reflects the rural householder's role as a member of a highly diversified "corporate conglomerate."

The small-farm economy can be characterized in terms of the intended result of householder labor. This yields four sectors of the household economy:

- 1) household production of goods and services for home consumption;
- 2) cash crop farming for market sales;
- 3) extra-agricultural businesses, the self-employed production of goods and services for sale; and
- 4) off-farm labor.

All small-farm households engage in the first sector-- production for home consumption. It is theoretically conceivable that a subsistence household might carry on no other economic activity. First-world observers of third-world farming carry such a stereotype in their heads. However, the literature shows no communities where that was the norm.

Most farm households engage in all four economic sectors, as a response to limited opportunities in any one sector or as a deliberate strategy of diversification and risk minimization.

It is almost always economically beneficial for small farmers, and especially women, to transfer labor from the subsistence sector of the household economy to other sectors, and for all small farmers to transfer labor from inherently risky agricultural production to non-agricultural (or at least not agriculturally self-employed) production. When opportunity permits, small farmers are seldom bound by traditional values that prevent them from moving out of their houses and fields with alacrity and enthusiasm.

A more detailed breakdown of the four production sectors of a household was included as Table IV-1. This listing may not be exhaustive, but is at least illustrative.

## **SECTION V DEVELOPMENT GOALS, STRATEGIES, AND PERCEPTIONS OF SMALL FARMERS**

### **A. ESTABLISHING AND TRANSCENDING A DOMESTIC ECONOMY**

To small farmers, economic development results from two overarching economic requirements. First, they must establish a household as a locus and capital base for their domestic economic sector. When they don't have that established, either because they are a newly formed domestic unit or because they live in circumstances of such poverty or such exploitive economic subordination that household formation has not been possible, than their principle economic goal is the creation of the culturally appropriate household. The historic peasant demands for land and freedom represent the aspirations of small farmers to establish a domestic economy when social and political conditions make that impossible.

Once a domestic economy has been established, members of a small farm household have the continuing goal of building up its capital base, to increase their domestic productivity, to raise their material standards of consumption, and to eventually provide for the creation of subsequent generations of household units. But they take on a new goal as well: transcending the economic limitations of their own domestic economy.

It is this latter goal, in its many possible forms, that is so clearly illustrated in the economic strivings of the small farmers described in this recent literature. The progress of this century in the developing world is nowhere more clear than in the fact that conditions of peonage and land monopolization that were so general fifty years ago are now rarely encountered. Throughout the developing world, most rural residents now belong to functioning domestic economic units. Problems of poverty are still so severe that for most it is a lifelong struggle to establish and maintain a domestic economy. But it is a struggle that most small farmers in most places in the developing world win. The status, autonomy, and economic security that results is a significant accomplishment, one that is often little appreciated by observers journeying from another, richer world. Because the domestic economy is everywhere more or less patriarchal, its establishment is more of a mixed blessing for small farm women than for men, but the domestic economy contains the sphere of day-to-day economic autonomy for mother-wives, and as such represents an economic achievement for them as well.

But nevertheless, further economic development requires two kinds of transcendence of the domestic economy. The first is a surplus of labor or product available for export out of the household, in order to be able to import the capital goods that will further increase the productivity of domestic labor, thus making available more economic surplus. This can result in a continuing process of domestic capital accumulation and economic growth. The second is an income producing activity, outside of the domestic subsistence economy, for household "dependents" -- women and young men -- who cannot achieve a higher return on their labor as long as they remain within the rigid social relations of the domestic economy itself.

## **B. THE HIERARCHY OF SMALL FARMER ECONOMIC DEVELOPMENT GOALS**

So the general goals of the small farmer are the establishment first of a domestic economy, and then the transcendence of its limitation by means of outside income from sale of product or labor in the wider extra-domestic economy. It is possible to further specify the goals of small farmers, what they must do to accomplish these two general objectives, while still remaining above the level of historical and cultural specificity that separate the choices of one small farmer from that of another. There are five goals that motivate the economic behavior of small farmers, goals that may be arranged in a motivational hierarchy, in which higher level motives are activated only when lower level goals have begun to be met. In sum:

There is a taxonomy that accurately reflects rural householder aspirations. That taxonomy establishes five levels of aspiration, with achievement of the lower (or perhaps earlier) objectives being a requirement for movement to the next.

There is a clear pattern of behavior, universal among small farmers (and possibly among all peoples). We infer from this pattern the aspirations of the small-farm household, shown in Table V-1.

The salient indicator at each level is the time frame of financial security. There is a clear pattern of movement from day-to-day survival, into ensuring survival over the course of life, into ensuring that the next generation will have a quality of life exceeding that of its parents.

The only sure indication that a household has reached any given level is its tendency to invest in activities that lead to the next level. It is at such times that what appears to be high risk behavior is most often found. For example, planting novel cash crops to strive for level 5, or starting a transport business to strive for level 6.

At any given level of the goal hierarchy the household will not take risks that endanger continuance at its current level in the goal hierarchy. The household will take extravagant risks with marginal resources in an attempt to advance to a higher level.

This hierarchy of small farmer economic development goals bears a superficial resemblance to Maslow's hierarchy of human aspirations. However, that resemblance is only superficial. But this goal hierarchy does imply a sequence of small farmer economic development. Creation first of a viable domestic economy (Goals 1 and 2) is followed by efforts to fortify and defend that domestic economy (Goal 3), which eventually requires the transcendence of the domestic economy by all the individuals in that household (Goals 4 and 5). Some cases of what these goals look like in the economic development efforts of actual small farm men and women will help overcome the necessary abstraction of what has been up until now only an exposition of the theory.

There is one caveat to the universality of this goal hierarchy. There was not sufficient data to examine this thesis against the Muslim Arab culture.

**TABLE V-1  
HIERARCHY OF SMALL-FARMER GOALS**

1. Escape from subordination to an economic superordinate (e.g., from rentier, landlord, patriarch, matriarch).  
**(Dependent membership in another's domestic economy.)**
2. Establish a viable household economy, once the culturally appropriate age and marital status has been attained.  
**(Establish a household.)**
3. Ensure economic security for the lifetime of the household: protection of income from capricious forces or actions. (This relates to protection of income from acts of nature and of man. Activities protecting against the former include investment in agricultural capital such as irrigation, shifting labor out of agriculture, etc. Activities protecting against the caprice of one's fellows include economic diversification, acting as warrior, and much apparently leisure-time social behavior.)  
**(Survival of the household throughout the productive years of the householders.)**
4. Accumulate enough domestic capital to permit establishing the next generation of households ("in the style to which they have become accustomed") and permit continuation of the present household beyond the loss of most of its dependent labor.  
**(Survival of the householders before and after their productive years.)**
5. Labor productivity sufficient to permit substantial rise in the material standard of living, and investment to ensure that increase in standard of living carries into the next generation.  
**(Survival of the generations.)**

### C. EXAMPLES OF SMALL FARMER DEVELOPMENT GOALS IN ACTION

One good example of a "completed sequence"-- farmers moving from level 1 into level 5-- is Dillon's already mentioned study of the World Bank's North Sumatra smallholder development project. The existence of these smallholders at all came from their refusal over three generations to become completely dependent wage laborers living and working on the rubber plantations. Instead, they cleared plots on the fringes of the plantations, planted trees nursed from stolen plantation seeds, and established their own rice and rubber mixed farms. They outlasted the plantations, to the point where the World Bank proposed to break up two remaining government owned and now decayed plantations in the area and to operate the rubber production industry primarily on the smallholder model. The plantation labor force, imports from another island, got to establish economically secure and independent domestic economies, while the original population of the area shifted much of its household labor from rice subsistence to rubber cash farming, while still seeking off-farm employment as much as possible and education for off-farm work for their children.

In an example of the inadequacy of the concepts usually employed to study the rural poor, Berger [1980] studied landless proletarians on the northern coast of Peru. She found that they became landless only after tiring of commuting from Sierra homesteads to seasonal farm labor on the coast, giving up their rights to small plots of Sierra lands in exchange for the greater economic opportunities of the more developed coast. Constantly looking for extra-domestic wage work, they found it an average of 34 weeks a year for men, 18 weeks for women. They supplemented this income with domestic subsistence work, though they had to buy all their inputs, having no land to grow anything, and with non-agricultural work, men as employed construction laborers, brick makers, etc. and women as self-employed weavers or vendors. Landless by choice and proletarians in name only, these small farmers pursued economic development goals not different from those of the landed, but in an economic environment where their best economic strategies involved leaving marginal Sierra lands altogether.

Kusterer's research [1982] in the same area of Peru revealed an interesting differentiation between two sets of small farmers participating in an asparagus farming project. One set, previously subsistence farmers basically without previous markets for cash crops, enthusiastically shifted as much family labor and investment as possible to the new asparagus crop. Another set, recent recipients of a former hacienda which they were legally obligated to farm collectively with cash crops including asparagus, concentrated as much labor as possible within their domestic subsistence economies which they were still just establishing. For this group, it made more economic sense to graze household goats on the asparagus plants than it did to continue investing in asparagus as a potentially profitable cash crop. They had access to wage income by virtue of their membership in the collective farm; what they lacked was a sufficiently capitalized domestic economy.

Fegan's 1979 study of a Phillipine wet rice village revealed an interesting contrast between leaseholding and sharecropping small farmers. Sharecroppers invested as little labor and capital as possible in their cash crop rice production, preferring to use the sharecropping arrangement as an access to a homesite base for their domestic economy while seeking cash income primarily through non-farm employment, usually on the farms of others, each other if necessary, in fact.

Leaseholders, on the other hand, did view rice farming as a possible source of cash, and minimized nonfarm employment to concentrate on achieving maximal harvests from their rice crops. The goals were the same in each case -- a diversified economy combining subsistence and cash production --but the strategies differed according to the structure of economic opportunities available to each.

Binford's study of the last 50 year's development efforts by small farmers on partially irrigated ejidos in central Mexico tells an interesting story. Small farmers maintained marginal subsistence and local market corn production on non-irrigated plots throughout the entire period, struggled against government credit and water authorities to have as little as possible to do with their officially sponsored cash crops of rice and sugar, and had by the time of the study succeeded in switching their primary cash-earning labor out of these crops, either into sesame and fruit trees (neither of which are government affiliated or regulated) or into off-farm employment, the principle economic activity of 50% of all household heads by 1980 (up from 27% in 1970). At present, the principle economic investments of these small farmers has become the financing of secondary and post-secondary educations for male offspring in expectation of qualifying them for non-agricultural employment.

Barclay's study of the well-known Mumias Sugar outgrowers project in Kenya provides insights into the goals and strategies of the 2000 small farm householders involved as outgrowers in that scheme. The intent was for outgrowers to divide their farming activity about 50-50 between sugar and subsistence crops. Outgrowers were highly satisfied with the project, and it had increased their incomes immeasurably, but it had not otherwise resulted as planned.

For one thing, 90% of male household heads had chosen to work at nonfarm occupations, 27% for the sugar mill or nucleus estate, 11% in distant urban areas, and the rest in local casual labor or self-employed trades. The result was a serious labor shortage on the family farms, both in the sugar and subsistence sectors. The labor shortage was worsened because families were sending older children to school (65% of males, 60% of females, compared to almost none previously), leaving only adult women available as the farm labor force. Since the sugar project would provide laborers for sugar work, paid with credit against the harvest, most outgrowers had gradually shifted to almost exclusive sugar production, because labor was not available for other crops.

Like the Mexican case studied by Binford, then, these outgrowers had rapidly moved to the more advanced goals of small farmer economic development. With domestic economies well established and capitalized, these small farmers were shifting more and more labor resources into first extra- domestic and then off-farm work. In both cases, the families clearly hoped and expected that farming for their children would be at most a part-time secondary occupation.

Little's 1983 study of Il Chamus herders in Kenya shows small farmers working on lower level economic development goals. A people who used to raise cattle as a cash crop and subsist on finger millet had in the 1930's grown accustomed to eating maize instead of millet, exchanging cattle for maize with farmers from nearby hill country. Deprived of that maize source after 1966 by the government's maize monopoly which bought all maize and shipped it to urban centers, the Il Chamus concentrated their economic development efforts on establishing a domestic maize production in each household, for human subsistence and as a cheaper alternative to buying maize from the government's maize board as a supplementary feed for their cattle.

In this case, what looks like a backward move from cash to subsistence farming is actually a significant step in economic development, substantially raising the incomes and capitalizations of Il Chamus small farmers in all economic strata. Most of the labor for this new maize production was that of women and children, who recreated a separate sphere of female farming activity that had been lost with the previous shift away from millet.

Two studies of small farmers in a highland area of Papua New Guinea [Burkin, 1984; Sexton, 1980] are of particular interest because these people "on the periphery of the periphery" had only come in contact with Europeans and the world market in the 1950's, at the very end of the colonial era. Government economic policies in the area have basically been to protect the farmers from participation in the market economy until an appropriate employment source or cash crop could be researched and planned for. In this environment, the economic development choices of the small farmers can be hypothesized to be as independent and free from outside influence as is likely to be seen in the modern world.

It is striking to see under these conditions how rapidly (within 10 years) these small farmers were attracted to establish a source of cash income to buy things, from cloth to coffee plants. Men, not previously much involved in subsistence agriculture since their previous role was primarily that of a warrior, sought employment (which required outmigration) or sought to buy and grow coffee, a new cash crop which government planners had introduced in other areas but not here, because it was thought that growing conditions were less appropriate. Women, using existing cultural forms used to save for bride prices, organized huge "wok meri" (pigin English for "work of women") savings networks which collected very small amounts from hundreds of women in many villages at wok meri ceremonies/parties, one in each village in each generation. Interestingly, they invested these large accumulations of capital in economic activities kept totally distinct from their own subsistence agriculture and from their household economies. They started nonfarm businesses, usually by buying a pickup truck (operated by a hired male driver) to transport cargo and passengers, or by establishing and stocking a general store. For both men and women in this situation, economic development meant first and foremost the establishment of an extra-domestic sector in their households, to serve as a source of cash income.

Kusterer's study [1981] of Cakchikel farmers in highland Guatemala found them highly attracted to participation in a vegetable outgrower scheme, even for vegetables like broccoli and snow peas that were new to the area. They enthusiastically concentrated labor and capital in this new guaranteed market crop, but what did they give up to do so? First, men and women immediately quit seasonal migrant labor for traditional landed elites (the coffee harvest), which they hated. Second, they gave up cash crop production of less lucrative crops and markets, which meant that the men no longer grew these crops and the women no longer hauled them on the bus twice a week to the Guatemala City wholesale terminal.

What they did not give up, and indeed went to considerable innovative lengths to maintain, was subsistence production of corn, a crop which they now planted on rented plots far from home (some a hundred miles away on the coast) and tended only three times a year, to plant, weed once, and harvest. What women did not give up either was their own small scale cash crop production (of chickens, eggs, flowers, herbs, etc.) which they sold in the same local market where they bought their weekly foodstuffs. This was their only independent source of cash and they kept it, even if they could have earned

the family more by putting that labor into the main vegetable cash crops. Just before these villages were destroyed by the expanding guerrilla war, these small farmers had started the economic development strategy observed elsewhere of educating sons for non-agricultural employment, the final step in the small farmer development cycle.

#### **D. SUCCESSFUL SMALL FARMER ECONOMIC DEVELOPMENT**

Stated succinctly, the successful small farmer is no longer a small farmer. This is not the view of some unempathetic outsider; this is how they see it themselves. The small farmer who reaches level five on the hierarchy of economic development goals has either ceased to be primarily a farmer -- the most common case -- or has ceased to be a small farmer, by almost any definition of small.

Let's review the five goals in the hierarchy, to see how this is so. Escape from patriarchal or matriarchal subordination, the first goal, is the world historical accomplishment of the last half century. Fifty years ago, most of the world's small farmers, indeed most of the world's total population, lived as slaves, serfs, or perpetually indebted tenants. Today, few still do. It is no longer the normal lot of the average small farmer in any country covered by this literature, probably in any country in the world. Now this kind of patriarchal or matriarchal subordination is experienced primarily by dependent women, usually young, in households in which they are not the first or primary mother-wife. Though slavery, serfdom, and debt peonage have been overthrown, the patriarchal household stands hardly challenged. Short of world feminist revolution, the surest route out of this subordination for small farmers is the establishment of their own household with their own domestic economic sector, the second economic development goal of small farmers.

This second level is still common. For one thing, it is constantly reexperienced by each new generation of small farmers as it comes of age. As economic development, the establishment of a new household means primarily the capitalizing of a new domestic economy, a set of capital equipment (land or at least a housesite, a house, a set of domestic utensils) sufficient to permit independent production of use values for domestic consumption. Almost by definition, land reform, resettlement, or colonization projects involve small farmers working at this level of economic development goals. This, by the way, is why the coops and collective production plans so common to these projects so seldom work. Participation in extra-domestic cash crop production activities is perfectly feasible with small farmers working at levels four and above, but small farmers first establishing their domestic economies have other priorities, other things to do.

Goal three, the income security goal, is where economic diversification efforts become the primary concerns of small farmers. This is where the transcendence of the domestic economy begins, as small farmers seek outside income from a variety of crops or non-agricultural pursuits. Men and women at this level seek, usually simultaneously, to accomplish a number of specific things: to establish and increase an independent cash income source for each individual adult in the household; to use the already established domestic economy as a base for moving into home-based production of goods or services (agricultural or not agricultural) for market sales; to begin using

"unnatural" capital goods in agriculture (fertilizers, irrigation, eventually pesticides) to expand production beyond "natural" limits and to protect production against predictable disastrous natural events (late rains, freezes, droughts, infestations, etc.); to earn at least some income from non-agricultural work, either self-employed (weaving, vending, brick making, etc.) or off-farm employed.

These initiatives are all mutually reinforcing, as productivity increases and the potential of surplus accumulation grows, and an optimist might refer to this as the "take-off" stage of small farmer economic development. With farmers at this stage of economic development, almost any kind of rural development scheme is potentially successful, if culturally appropriate and competently or at least noncorruptly executed. Credit, marketing, employment generation projects -- all can be taken advantage of by small farmers in this last stage of small farmerhood. Of course, ten years later, a really successful project is open to the criticism of benefiting middle farmers and not the truly small farmers who need it most. But that's development.

Goals 4 and 5 imply a break from perpetual peasant cycles of household rise and decline over the life cycle of the peasant. With even a partial accomplishment of goal five, accumulation of enough domestic capital so that the next generation does not have to spend a large part of its adult life back at goal 2 and so that the old generation need not return immediately to level two itself with the loss of the children's labor, a decisive break is accomplished from the cycle of perpetual poverty. The key to goal five is an understanding that an increase in the small farmer's standard of living is not just an increase in consumption patterns but also an increase in the productivity of domestic labor. With cash income sufficient to purchase and continue in operation a stove, hours of fuel gathering is eliminated every day; sufficient to pay a nearby mill to grind grain, hours of mortar and pestle work is eliminated every day; sufficient to hire a tractor to till, days of field preparation are eliminated every year, etc. With these breakthroughs, based on more highly productive domestic capital and on access to cash income to pay to use capital too expensive for ownership by every household (like tractors and tortilla mills), the productivity of domestic labor is so enhanced that more surplus labor time becomes available for cash-generating extra-domestic labor, and the cycle of expanded reproduction of domestic capital can continue.

Level five, access to at least some economic activity that promises to return a level of wage or profits income much higher than subsistence, is the economic development goal that, when accomplished, promises a rise out of rural poverty to middle class status, however that is defined locally. If the economic activity that makes possible such an income is wage labor or self employment in a non-farm trade, as it usually is, then the small farmer ceases to be primarily a farmer. If the economic activity is commercial farming using some new technology or serving some new market, which it sometimes is, then the small farmer continues as a farmer, but ceases to be small. In either case, the previous small farmer household has worked and saved its way out of small farmer poverty, ready perhaps to embark on new goals and new levels of economic and human development.

#### **E. ANOTHER LOOK AT THE LITERATURE**

In the following paragraphs, the literature is reexamined in light of the study findings. This "rereview" is similar to the earlier presentation, but differs in that it was undertaken with the conclusions and findings of the study firmly in mind.

We discuss here a representative, rather than a comprehensive, sample of the literature. The literature was chosen to demonstrate the apparent validity of our paradigm to various regions, cultures, and farming practices. It was not chosen to "prove" the paradigm, but rather to test it.

1. Smith (1979) and Fegan (1979)

As noted, Smith and Fegan in essence anticipated our paradigm, and clearly established that the small farmer is not a small farmer, but a "diversified mini-conglomerate."

2. Ashby

Based on field work in Nepal, Ashby classified farmers in terms of their sources of income, and noted that the key variables affecting small farmers were the extent of market integration and the type of linkage to markets. This sensitivity to markets was a further clue to our paradigm. Ashby's four-part typology was:

1. large-farm commercial (more than one hectare, at least 50% of income from cash sales);
2. small-farm commercial (less than one Ha, at least 50% of income from cash sales of livestock);
3. part-time farmers (at least 33% of income from off-farm activities);
4. subsistence farmers (little or no cash income).

The substantial diversity of activity demonstrated by even the smallest farmers (category 4 was in practice close to a null set) was again suggestive if not conclusive.

3. Berger: Study in the Peruvian Sierra

As soon as it became clear to subsistence farmers that they could make more money and have more household security as wage laborers, they gave up their traditional land holdings and moved to where the jobs were.

The author makes much of the fact that these were now "landless farmers." In fact, they were rural poor who found that the asset value of their small holdings was not sufficient to keep them "on the farm."

Subsistence farmers in the Peruvian Sierra were made aware of job opportunities that required relocation. The male householders typically "tested the water" by temporarily relocating at the job site, leaving the rest of the family to continue subsistence farming. These households could not practically continue as economically diversified economic units, because their land was too far from the job sites.

After a time, typically years, of "commuting," the householders gave up farming entirely and relocated the household near the job sites.

This study illustrates the willingness of the small farmer to adopt new behavior to aspire to level four, after the household has reasonable assurance that level three is not being risked.

#### 4. Kusterer: Peru

A market was established for a cash crop that was new to these Peruvian farmers: asparagus.

One group of landless plantation workers was legally obligated to farm asparagus as part of a collective. They received a wage but were not certain of profits. These households shifted as much of their labor as possible into domestic subsistence economies-- which they had to establish de novo.

The small farmers in the same region found that there was little market for cash crops other than asparagus. They immediately and enthusiastically shifted into farming asparagus.

Both groups of farmers demonstrated the willingness and ability to quickly and enthusiastically change from traditional ways to achieve economic security and betterment.

Those who had previously been plantation workers innovatively established "level 2" households. The local farmers responded to the market as appropriate to ensure continuance of "level 3."

Note that in both cases (and all) cases, the best indicator of achieving security of a given level of household goal is the investment-- often innovative or risky-- in the next level.

#### 5. Fegan: Rice farmers in the Phillipines

Two types of rice farmers were observed: share croppers and leaseholders. Both were engaged in behavior to ensure "level 3" and begin investment in level four. But the behaviors were radically different.

Sharecroppers invested an absolute minimum of time in the (sharecropped) rice production. They derived their primary income as wage laborers, typically remote from the farm. They used the sharecrop arrangement primarily to establish a home site.

Note how rational this behavior is in terms of risk minimizing. The only certain result from share cropping is the home site. Income depends on the weather and the market. Having obtained the home, wage labor is the surer way to go.

The leaseholders, on the other hand, did not seek off-farm employment, but concentrated their energies on the rice harvest. Having already gone at risk with the leasehold, their energies were properly invested in maximizing return on that investment.

6. Binford: Small Farmers in Mexico

This is perhaps the best of the studies reviewed, in terms of quality of work and demonstrating our paradigm.

Binford studied years of development efforts among small farmers in Mexico. Initially, these farmers were typically at level 2. Ultimately, and largely in spite of government development programs, the farmers were typically at level 5 and beginning investment in level 6.

The traditional cash crops were rice and sugar. The government sponsored these traditional crops, and provided irrigation. However, the farmers were expected to pay small fees for the irrigation.

As a result, the farmers shifted their farm labor into non-sponsored crops on non-irrigated plots. They in essence returned to subsistence farming rather than go at risk with a government program. And, increasingly over the years, labor was shifted into the non-farm wage economy.

In the late 1960's, before the government sponsorship of rice and sugar, only 25% of the heads of household engaged in off-farm activity as a principal source of income.

In the late 1970's, 90% of the heads of household worked for wages as their principal economic activity. Farming was continued as a supplementary household activity, but wages were being invested in education of the children. Education to ensure that the next generation wouldn't have to be farmers.

7. Barclay: Mumias Sugar outgrowers, Kenya

In this well-known project, two-thousand small-farm households were provided the opportunity to supplement subsistence farming with sugar as a cash crop.

The result was that 90% of male heads of household chose to work at non-farm occupations and the women shifted their labor from subsistence to sugar farming.

These rational economic practices allowed the households to remain securely at level 5 and begin investment in level 6.

8. Little: Chamus Herders, Kenya

Traditional herders, who had given up millet farming in the 1930's (at which time it was a dietary supplement for both the livestock and the herders), the Chamus were accustomed to buying maize from local farmers. (Maize, as millet for earlier generations, was a dietary supplement for both the householders and their livestock.)

The government of Kenya established a maize monopoly, and maize was no longer available to the Chamus from local small farmers.

As a result, the Chamus established maize production capacity within their households.

9. Burkins, Sexton: small farmers in New Guinea

These small farmers had no contact with the "developed" world until World War II. They had no possibility of entering a market economy until the late 1960's. It was a deliberate government policy to keep them out of the market economy, no doubt because of their "primitiveness."

It didn't work. The government couldn't keep these farmers from participating in the market economy.

Men, who had traditionally been warriors (a level three activity), outmigrated to obtain employment, or cultivated coffee as a cash crop. (In some cases stealing the plants, as they weren't supposed to be involved in the market economy.)

Women pooled their capital to establish businesses. For example, purchase of a truck to start a transport business, running a general store.

Note that this was a people that had for many generations established a successful "subsistence" agriculture, safely in level 3 and investing in 4. But, given a chance at a market economy, they responded quickly and radically.

The market economy promises a chance at level 4. These householders took that chance and will probably soon be investing in level 5.

10. Kusterer: Cakchikel farmers in Guatemala

The Cakchikel households enthusiastically invested capital and labor in a vegetable outgrower scheme, even for crops new to the area. They gave up seasonal migrant labor and production of less lucrative crops.

The Cakchikel did not give up subsistence production of corn, nor of small-scale production of crops and goods sold in the local market (e.g., poultry, eggs, herbs, flowers).

Dr. Kusterer personally observed the evolution of these households from level two, through level three, and into level four, based on access to a market economy.

These households were starting to educate their sons for non-agricultural employment when their villages were destroyed by an expanding guerrilla war.

11. Dillon: North Sumatra

This study illustrates the tenacity with which small farmers will diversify to minimize risk. The particular risk was that dependence upon the government wage was not consistent with level 3, which demands that the household be independent of caprice, nor with their aspirations, which were at level 4.

For three generations, the small farmers refused to be dependent solely upon wages, living and working on the government rubber plantation. They cleared plots on the fringes of the plantations, planted trees nursed from stolen plantation seeds, and established their own rice and rubber farms.

not consistent with level 3, which demands that the household be independent of caprice, nor with their aspirations, which were at level 4.

For three generations, the small farmers refused to be dependent solely upon wages, living and working on the government rubber plantation. They cleared plots on the fringes of the plantations, planted trees nursed from stolen plantation seeds, and established their own rice and rubber farms.

A new labor force, of plantation workers from another island, was imported. They established secure domestic economies, essentially at level 3.

The original populace shifted much of its household labor to cash farming of rubber and off-farm employment. Secure in level 4, they invested in educating the children for off-farm employment.

## SECTION VI IMPLICATIONS FOR SMALL FARMER DEVELOPMENT ASSISTANCE

### A. SUMMARY

If our conclusions regarding the attitudes and behavior of small farmers are correct, then conventional approaches to improving the lot of the small farmer are not valid. In particular, it appears that:

- Loans to subsistence farmers-- those at early levels in our goal hierarchy-- don't make sense. Loans will either not be drawn down or not be repaid.
- Nor do most government programs: the small farmer is not going to risk his livelihood on the ability of the government to continue a program.
- On the other hand, almost any investment in a rural area will probably increase the effective income of households in that area.<sup>7</sup>
- The programs that will most clearly and directly benefit the smallest (i.e., subsistence) farmers are those that will improve the productivity of householder labor.
- Such programs include investments in infrastructure.
- Infrastructure investments that will most directly benefit the farm (as opposed to the household) are investments that facilitate market entry. (Such types of investment might include roads and irrigation facilities.)
- The best "woman's" programs (in the sense that they would benefit women both directly and primarily) would be investments in utilities (water, sewage, electricity) and the making available of inexpensive over-the-counter medicines.<sup>8</sup>
- It is of direct benefit to small farmers to establish markets for crops, especially new (as opposed to traditional) crops.
- Small farmers respond so rapidly to changes in conditions that research aimed at increasing productivity of existing farming practices doesn't make sense-- results will be out of date before they can be acted upon.
- On the other hand, research that defines new crops for assured markets may be acted upon immediately.

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<sup>7</sup> Remember, small farmers respond to opportunities.

<sup>8</sup> Such investments increase labor productivity of the female farmer/householder. She will invest the labor hours thus made available to her in movement along the hierarchy, typically in ways that increase her personal income.

- Key to rural households is diversification. Households at the subsistence level diversify to decrease the risk of failure. Households sure of subsistence will diversify (and take great risks) to move to a higher-level goal.
- Thus, almost any project that increases the options available to rural households will be of benefit, if and only if those households are above the subsistence level.

## **B. ECONOMIC GROWTH COMPATIBLE WITH SMALL FARMER GOALS AND DEVELOPMENT**

The first and most essential implication is that the oft-made distinction between economic development and economic growth does not necessarily apply in the case of small farmers. They want to participate in economic growth, and such participation will make possible the developmental transformation of their small farmer economies. Many development advocates, especially anthropologists, are prone to seek some so far unattained new kind of development that permits small farmers to benefit economically without much changing the cultural values and traditional institutions that small farmers have created over time to support themselves in their small farmer status. Small farmers themselves, in contrast, want first and foremost to escape being small farmers, and they voluntarily endure tremendous sacrifices and disruptive transitions towards that end.

In periods of rapid rural development, small farmers cease to be small farmers, and innumerable folk traditions and ways of life move from living reality to museum history. Though it is possible for small farmers to be pushed reluctantly out of their domestic economies, as when their land is appropriated for large-scale export agriculture, there were literally no cases of this in the 268 studies reviewed here. Overwhelmingly, small farmers were pulled out of their domestic economies into cash-earning labor by the hope of capitalizing and transcending their domestic economies that these cash-earning opportunities engendered. This is nowhere more poignantly illustrated than in the Papua New Guinea cases [Burkins, Sexton], where small farmer men and women were inventively and unceasingly plotting and working to obtain access to cash income, while government officials dithered trying to figure out an economic development plan for the area that would be feasible while at the same time easing the transition for these unassimilated small farmers.

## **C. SMALL FARMERS CAN MAKE DEVELOPMENT WORK (Though Seldom as Intended)**

A second implication is that small farmers can use the opportunities afforded by almost any type of rural development project to further their own economic development goals. Even failed projects, and this literature is full of examples of those, that achieved no self-sustained permanence beyond the life of project funding, offered important development possibilities for their small farmer participants. Farmers in levels three and four, seeking to establish secure sources of cash income and economic diversification, will use to advantage almost any new marketing or employment opportunity that comes along, and will convert that income and experience into

productivity-enhancing domestic capital on the one hand, and transferable income-earning new extra-domestic knowledge and skills on the other. Farmers in levels one and two, on the other hand, have development goals less likely to be compatible with the goals of rural development assistance projects.

#### **D. SUBSISTENCE FARMERS NEED CAPITAL, NOT CREDIT**

Level one and two small farmers struggling to establish independent households and viable domestic economies do not yet have the luxury of emphasizing cash-earning labor. They are trying to get their households established with the functional minimum of domestic capital in order to successfully produce their own immediate needs. Their immediate need is to increase the productivity of domestic labor to levels that will permit them to survive on the labor available in the household, and they have few labor resources that are surplus to the domestic economy and available for export into extra-domestic cash-earning work. They will invest any credit in domestic capital instead of extra-domestic activity, and will be unlikely, since domestic labor produces goods and services for home consumption instead of for market sales, to be in a position to repay the credit later. Forced to repay, they will liquidate domestic capital to make the payment, which leaves them no better off than when they began. The most frequent mismatch between development assistance intentions and small farmer economic goals occurs when level one and two small farmers are expected to concentrate on cash crops before their domestic economy has been established, and earn cash to repay the costs of the land resettlement or irrigation infrastructure project that permits the establishment of their new households in the first place. The small farmers invest in "traditional" domestic production, to the disgust of the urban experts, and the project fails in the sense that it can never "pay for itself."

Development assistance efforts that will most directly benefit the poorest of the poor small farmers are grants (not loans) that will result in the increased productivity of domestic labor. The projects that can do this most efficiently, the biggest help to the largest number of level one and two small farmer households, are community infrastructure projects, like small scale irrigation or potable water systems, that create community capital which enhances the domestic productivity of the largest number of small farmer domestic labor. The danger, and it is a real one, is that small farmers will cannibalize capital assets intended for community use by appropriating them directly into their own households. But if a village is a sufficiently established community to create effective peer pressure against this appropriation, then one water tap can directly free hours of labor time spent daily by women walking to the nearest water source, and indirectly increase the productivity of innumerable household tasks where a little more liberal use of water could save much labor time and effort.

#### **E. SMALL FARMER DEVELOPMENT BENEFITS WOMEN:**

Women are small farmers and can be the primary beneficiaries of many kinds of development

In spite of sexism inherent in much of the planned development efforts discussed in this literature -- like the Mumias sugar project where the contracts and payments were made to men because they had land title while all the farm work was done by women-- small farmer economic development benefits women. The trickle-down from male household heads to female household members has about as high a flow rate as any development trickle-down ever does. Women benefit very directly in the

establishment of households in which they escape from subordination to both matriarchs and patriarchs, to occupy the chief mother-wife position in their own household. Although it can be argued that women are even then still subordinated, to their spouses, they become fully participating and decision-making members of that "diversified mini-conglomerate." The domestic economy of the patriarchal nuclear household unit is a far better place for women than the domestic economy of the patriarchal extended household with its hierarchies of levels of subordination. This is how economic development goals one and two serve women, and they support these goals even more actively sometimes than their men.

There is nothing necessarily beneficial to women about the economic diversifications of levels three and four. This is the development stage, when men leave the domestic economy for income producing work, and women are left still doing all the domestic labor but with no direct access to income, that feminists have referred to as the domestication, or "housewifization" of women. But the literature reviewed here reassures us that small farm women are not that stupid. In case after case after case, women made whatever sacrifices were necessary to ensure that they too had an independent source of cash income from employment, cash-crop farming, or home-based business. They earned less than men, not necessarily per hour of extra-domestic work but in total cash earnings, but they earned. In almost all of the cases reviewed, women emerged from these levels of small farmer economic development less, not more, limited to the domestic economy and less, not more, economically dependent on their husbands for access to cash income.

So small farmer development is also development of women. This is so primarily because of the initiatives of small farm women, not because of anything necessarily inherent in the process. Development assistance projects can assist women as much by refraining from putting additional hurdles in their path as by concentrating on "women's projects." Helping the household does just that-- it helps the households and all its members. A sensitivity to the needs of women that does not result in creating new exclusively male spheres of income-generating work would be sufficient space to permit small-farm women to benefit from small farmer development.

#### **E. RURAL INCOME-GENERATING PROJECTS**

Finally and most broadly, the small farmer perspective on development confirms the importance of projects that bring income earning opportunities to rural areas. If they have to, small farmers will split households to send members to job opportunities in urban zones. But the option is one that they would rather not be forced to choose, for the obvious family reasons. Not only is the choice personally difficult, it is also economically wasteful, whether from the point of view of the small farmer who loses time in migration and money in urban room and board, or from the point of view of the society that has to provide the additional urban infrastructure.

Any project that expands and diversifies the income opportunities in the rural areas where small farmers already reside is therefore a small farmer development project. Anything that provides new markets for small farmer agricultural production, new possibilities for expanding small-farm self-employed activities into going micro-enterprises, or new employment opportunities helps small farmers. Introduction of new markets for non-traditional crops is particularly likely to expand and diversify income opportunities. Not only can small farmers move into a new cash crop activity (or benefit possibly from increased prices in old crops as other farmers grow less of them),

but new crops require new transportation and processing systems. Small farmers can provide the labor for these, whether as employees, as members of coops and collective enterprises, or as self-employed micro-entrepreneurs.

An ideal small farmer development project would be an agribusiness project that links a farming zone to new markets by introducing new crops, buys raw material from small farmers while at the same time offering necessary production credit, needs and pays for household or village level post-harvest down-line processing of the product, employs small farmers for further processing in plant, and requires ancillary micro-enterprises to service its operations. Operations like this have been set up all over the less developed world in recent years, although seldom have they been conceived as small farmer development projects. Nevertheless, after land reform and the abolition of peonage this is what the next level of small farmer development looks like

## **SECTION VII REVIEW OF FINDINGS IN LIGHT OF OTHER CONTEMPORARY DEVELOPMENT LITERATURE**

### **INTRODUCTION**

Given the potential significance of our the study findings, after completion of the study an additional review was made of related development literature.

It is good science to undertake such a review. The study resulted in a model. The model is intended to explain and describe household behavior. Therefore, the research question was:

Does the small-farmer goal hierarchy explain and predict the behaviors described in this literature?

The answer was yes.

Although none of the data presented in the literature was exhaustive enough to prove our findings, all of the evidence was explainable in terms of our findings.

Even the opinions and perspectives taken within the literature seem supportive of the findings.

Brief insights into that review are presented in the following. (More detailed references are included as Appendix B of this report.)

#### **A. DEVELOPMENT ISSUES AND ECONOMIC ANTHROPOLOGY (Edited by Peggy F. Barlett)**

This compilation of papers presents substantial insight into the thinking of the small farmer. Those insights support the findings of this study, but do not prove them. A few examples follow.

It strains credulity that small-farmer goals are culturally invariant. Yet, this work tends to support that thesis. For example, Sutti Ortiz (Response to uncertainty) finds Indian and caucasian farmers facing the same farm opportunities gave the same responses to his questions: "I concluded that cultural differences are either too small or irrelevant to the task at hand compared to relevance of problems that all of them must face."(pp179,180)

Ortiz also demonstrates that information about past harvests is retained as appropriate to calculate risk/reward (our term, not his).

All of these papers support the view of the small farmer as highly rational and adaptive, taking those risks that are appropriate to his situation.

Sara S. Berry (Decision Making and Policymaking [sic] in Rural Development) notes that "there is no evidence that poor farmers' goals or decision-making processes are consistently different from other people's." [p323]

The above statement can be taken to support or attack our findings, depending on your view of people other than small farmers. We find the statement to be modestly supportive and, in all events, we offer evidence regarding the specific goals of small farmers.

Berry, as others, also supports the thesis that small farmers are highly adaptive: "poor farmers have not only proved generally responsive to feasible opportunities to increase their income, but also their responses are often more "appropriate" to the factor endowments and institutional structures of underdeveloped economies than are those of large-scale agricultural producers." [p329; underscoring added]

## **B. FARM SYSTEMS RESEARCH**

Multiple texts dealing with farm systems research were reviewed. In summary, we note that farms systems research is only marginally relevant to the study reported here, for reasons that are now gaining wide acceptance among farm systems researchers-- namely the lack of a sociological/anthropological perspective.

In general, farm systems research is only marginally relevant to our findings because:

1. The unit of analysis-- the farm, rather than the household-- is wrong. Farmer productivity is not the same as farm productivity,
2. The implicit assumption that farm technology is the limiting factor. (In contrast to our view, which is that access to markets and increase in farmer, not farm, productivity is the key to development.)
3. The lack of a sociological/anthropological perspective and understanding.

### 1. Innovation Policy for Small Farmers in the Tropics (Hans Ruthenberg)

This text is a good example of the kind of systems research that proves systems research can't be done with the farm as the unit of analysis. The unit of analysis must be the household and householders. Further, you cannot optimize a closed system: there must be reference to an objective function external to or "superior" to the system.

By definition a "system" is a complex of interrelated entities and activities organized to achieve some end or produce some product.

The "ends" of the small-farm household appear to be our paradigm of small-farmer goals.

### 2. Farming Systems in the Tropics (Hans Ruthenberg)

This text is an excellent compilation and analysis of agricultural practices. The multiple examples of householders changing practices in response to economic opportunities (including buying small plots of unworked plantations) underscores the complex, adaptive, and innovative behavior of the small farmer.

As such, the data and perspectives in no way invalidate the study findings.

We note for example, in pages 20 through 22, that farmers diversify to maximize expected value under adverse conditions, again our predicted response.

3. Maxwell, Simon: Various (see bibliography)

This author has a consistent and clear overview of farms systems and research. But he is looking at the farm, not the household.

Indicative of this orientation are two facts:

1. Off-farm labor is viewed as a constraint, not a contribution to the system;
2. No reference is made to non-farming domestic labor.

Maxwell appears to see these issues and suggests that social scientists become involved. He notes that most research deals with "snapshots" of farms, failing to take into account their dynamic nature. And, further, that the external systems determines what the small farmer does, and that external system is itself dynamic.

We concur with Maxwell's view, and find no conflict with the study results.

4. Farming Systems Research: A Critical Appraisal (Gilbert and Norman)

These authors point out that farm systems research is all right as far as it goes, but it doesn't go far enough.

The major conceptual point is the attempt to optimize a closed system, the farm. As noted earlier, this can't be done.

Our study team hopes (indeed expects) that Gilbert and Norman will find the results of the current study to be a useful supplement to farm systems research.

**C. UNDERSTANDING AFRICA'S RURAL HOUSEHOLDS AND FARMING SYSTEMS (Edited by Joyce Lewinger Mook)**

"A distinguishing feature of farming systems philosophy is its emphasis on increasing the overall productivity of the farming system." (p36, Norman and Baker, FSR Credibility and experiences in Botswana)

The above quote characterizes most of the work in this text: it is not relevant because it does not provide data and information on the true units of analysis: the household and the householder. That is the system to be optimized, and that is being optimized, by determined and adaptive small farmers around the world.

Where hard evidence is presented in these articles, those data are consistent with the study findings.

Christine W. Jones (Intra-Household Bargaining in Response to the Introduction of New Crops: A Case Study from North Cameroon) presents some interesting findings regarding the nature and extent of payments made among family members.

The bargains struck between a Massa husband and wife , as described by Ms. Jones sound very much like the kinds of bargains struck between corporate members of the same conglomerate. Those bargains allocated specific risks and costs to the individuals while minimizing risk that the household would not fall below a subsistence level. This was in response to introduction of rice as a cash crop.

**D. PEASANTS, POLITICS, AND REVOLUTIONS (Joel S. Midgal)**

This text argues strongly that peasants do not change their cultural practices by copying behavior, dress, etc., from other cultures. Even when exposed over long periods to "modern" culture, through continual off-farm employment, peasants retained traditional ways and dress.

This text also points out that the pressure for participation in a market economy is so strong that if the government prevents the peasants from achieving a domestic economy, the result may be revolution.

The author shows how peasant "self activity" responds to modernization and development pressures: seeking the goals that our study identified. He provides a particularly accurate description of the economics and politics of householders at the first two levels of the goal hierarchy.

In both cases, we infer support for our findings:

Peasants will change their ways and practices when it makes sense for them to do so, based on a rational risk/reward analysis. The rewards they are expressed in the goal hierarchy.

**E. AGRICULTURAL DECISION MAKING (Edited by Peggy F. Barlett)**

This compilation again demonstrates the rational and adaptive behavior of small farmers. We conclude that to the extent that the data in this compilation are relevant to our findings, such findings are supported.

Time and again conclusions such as the following are reached:

"55 of the 66 farmers were found to be following practices that were unambiguously more profitable than the alternative." (Risk and Uncertainty, Frank Cancian, p165)

**F. SMALL FARM DEVELOPMENT (Richard R. Harwood)**

This author directly addresses the topic of primary interest to us: goals of the small farmer. Further, he notes that small farmers have a hierarchy of goals. The difference is, he is less explicit in defining specific levels of such a hierarchy-- with good reason, as he did not complete the extensive review and synthesis undertaken in this study.

The author differs from our findings in his belief that "Beyond meeting basic food needs, the goals of families and societies become individual and diverse." (p21) This opinion appears to be inferred from the wide variety of customs and practices of small farmers, difficulty in placing such values as "respect of one's neighbors" in a goal structure, and not being able to attribute clear economic value to religious practices.

Our judgments differ, too, about the behavior of the subsistence farmer. He attributes risk-taking behavior of the small farmer to the fact that he risks only (!) more hunger, whereas the prosperous farmer risks loss of face.

We attribute that risk-taking behavior to the need to sustain and expand from a sustainable domestic economy.

In most regards, however, both the evidence and the opinions offered in this text are consistent with our findings. For example:

"farmers are.. purposive in making decisions that are in their best interests as they see them. It is often difficult, however, to define and quantify the farmer's concept of utility (p21)/

"Perhaps the most difficult value for an observer to appreciate in the small, noncommercial farmer is stability. The farmer values insurance against famine or crop failure; by the same token he places a negative value on unnecessary risks." (p22)

Harwood also further recognizes that farmers have both long- and short-term goals, and act differently depending on how far away they are from subsistence. In this regard, his judgment is fully consonant with the study findings. From his discussion of long-term versus short-term goals on page 23:

"Life at or near the subsistence level discourages the farmer's willingness to sacrifice a portion of his current production potential for the chance of a higher production in the future. Often, however, the small farmer can satisfy both goals by gradually phasing in long-duration crops as part of his traditional crop mixture."

This is, of course, exactly the behavior our model predicts.

Harwood's taxonomy of farms is of farms, not households:

1. Primitive
2. Subsistence
3. Early Consumer
4. Primary Mechanization

Our analysis shows that the movement from subsistence style of farming to mechanized does not correspond to development.

**G. HOUSEHOLDS (Netting, Wilk, and Arnould)**

This compilation of 17 studies of households is an important and useful book that supports without providing sufficient evidence to prove the study findings.

For example, Richard Wilk (*Households in Process: Agricultural Change and Domestic Transformation Among the Kekchi Maya of Belize* [p230]) notes that:

"There is an obvious and strong correlation between lower availability of land, higher frequency of cash cropping, and a low frequency of independent households."

This relationship is not all that obvious. But it is predicted by our model: unable to establish level two domestic economies, men and women remain dependent members of successful level three households. When and if economic opportunities improve, the advanced subsistence households will move toward level four, and new level two households will be established by previously dependent members.

In virtually every case, this compilation presents similar findings or conclusions that are explained or predicted by our small-farmer goal structure. We take that as a strong demonstration of the utility and power of the findings.

**H. INTERMEDIARIES IN RURAL DEVELOPMENT (Esman, et al) and LOCAL INSTITUTIONAL DEVELOPMENT (Uphoff, Norman)**

These texts are discussed together because they deal with the same topic in the same way: case studies of how to use intermediary organizations in the development process.

The clear message of this text is to use local intermediary organizations, and encourage their growth. That message is neither in consonance with nor in conflict with the study findings.

These authors encourage equally institutional forms involving the government, PVO's, and private enterprise. Any would be a plausible vehicle to effect the infrastructure improvements that would benefit small farmers.

**I. DEVELOPMENT ECONOMICS ON TRIAL (Hill, Polly)**

This author also makes the point that one can't predict farmer behavior with econometric models, anthropological studies are required.

The data presented support our findings. The views demand the type of study and analysis we performed.

## **SECTION VIII RECOMMENDATIONS**

It is not normal for a study of this type to result in recommendations. However, the potential policy and programmatic implications of this study are substantial. The analysis and somewhat speculative projects of the study findings and conclusion should be subject to further proof and demonstration.

Therefore, we recommend that the following parallel steps be undertaken:

1. Present these findings for critique by policy analysts and AID technical offices as well as researchers;
2. Review these findings in terms of their relevance to the "informal sector" and "micro-enterprise";
3. Develop and implement a research protocol to test predictions of the model against actual field experience (studying farmers already considered in the literature review);
4. Immediately undertake a field study to test these findings in a Muslim Arab culture: it would be a strong test of the study findings to examine them in the light of a culture not included in the original synthesis;
5. Develop an idealized small farmer project-- a project that makes sense if the findings are correct;
6. If the results of earlier steps are positive, implement the project defined in step 5.

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**APPENDIX B**  
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