A PROJECT TO HELP PRACTITIONERS

HELP THE RURAL POOR

Case Study No. 3

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SOCIAL WORK AND RESEARCH CENTER

An Integrated Team Approach in India

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PREFACE

This report on the Social Work and Research Centre in the Indian State of Rajasthan is the third in a series of case studies of innovative rural family life improvement programs covered by ICED's cooperative international project on "helping practitioners to help the rural poor." The first two completed studies, from Bangladesh, deal with the Savar People's Health Project and the program of BRAC (the Bangladesh Rural Advancement Committee). More case studies from other developing countries are under way.

The purpose of the overall ICED project is to extract significant lessons--both positive and negative--from the experiences of selected programs that can provide useful guidance to practitioners in many developing countries and external assistance agencies interested in applying a more integrated and community-based approach to improving the quality of rural family life--in contrast to the conventional top-down, fragmented approach that has proved increasingly unsatisfactory.

The Social Work and Research Centre (SWRC), an indigenous and highly unconventional nongovernmental organization, makes an illuminating case study for this purpose. During its first five years the SWRC initiated a series of actions in a semi-desert rural area with a population of some 80,000 people, bearing on water development, agriculture, health, nutrition, family planning, maternal and child care, literacy, formal schooling, rural industry, and special programs to improve the earnings and status of women. These activities have become increasingly integrated with one another and increasingly rooted in the village communities.

The SWRC is integrated also in a different sense: its own activities, by conscious design, have become productively linked with those of various government and private agencies operating in the same area--an unusual feat for a nongovernmental agency and one that enhances its prospects of having a salutory influence on larger-scale public programs.

The impression should not be given, however, that this is a flawless success story. There can be no such thing as perfection among innovative rural development programs, much less among conventional ones. Along with its impressive achievements SWRC has had its share of difficulties, misfires, and disappointments, but its leaders have made a point of facing up to these candidly and learning from them. These same negative lessons can be as useful to others as the numerous positive ones coming out of SWRC's first five years of experience.

The principal investigator and author of the preliminary draft of this case study was Dr. Pratima Kale, a member of ICED's staff, whose long familiarity with rural India and background in sociology and nonformal education qualified her well for this assignment. Because of her departure from ICED to accept a challenging new position, the undersigned director of this ICED project prepared the final draft presented here.

Although the study constitutes an independent and impartial appraisal of SWRC, for which the authors and ICED assume full responsibility, it would not have been possible without the willing and generous cooperation of the Centre's founding Director, Bunker Roy, its Joint Director, Aruna Roy, and other members of SWRC's "team." In addition to their abundant help to Mrs. Kale during her two visits to Tilonia and the surrounding project area, they carefully reviewed her preliminary draft report and provided much useful additional information and a few corrections where warranted. To their credit they did not in a single instance suggest toning down or qualifying any of the more critical comments. On the contrary, they pointed out some blemishes not noted in the original text and suggested that these be added in the interest of accur . They were also kind enough to say that while they hoped the study would prove useful to others it was already proving useful to SWRC. We take this opportunity to express ICED's deep appreciation to Bunker and Aruna Roy and their colleagues for their indispensible cooperation.

Philip H. Coombs, Vice Chairman
International Council for Educational Development
Essex, Conn.

March 1978

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INDIA
ADMINISTRATIVE DIVISIONS 1971

CHAPTER 1

THE BACKGROUND AND AN OVERVIEW

The Social Work and Research Centre (SWRC) is an indigenous voluntary organization that got its start in 1972 in a backward rural subdivision of Ajmer District in Rajasthan State in India. During its first five years of operation--up to mid-1977, the cut-off point of the present study--this innovative organization initiated a wide assortment of rural development efforts involving water development and irrigation, agriculture, community health, rural industry, and both nonformal and formal education. These programs have become increasingly integrated and village-based, and they have established a network of cooperative linkages with various governmental and nongovernmental organizations. The Director, Joint Director, and a team of young university graduates have been putting into practice their basic concept of "professionalization of rural development" and have devised a number of effective means for strengthening this process. The Centre has explored strategies for getting villagers directly involved in program activities and managed to reach some of the poorest sections of communities in a focused manner.

Although the SWRC is still a relatively small organization, the available evidence suggests that its activities have already had a beneficial impact on the lives of more than one-quarter of the 80,000 people in the Silora Block of Ajmer District. In addition, SWRC has established active satellite centers in the Jawaja Block in Rajasthan and in three other northern Indian states--Punjab, Haryana, and Himachal Pradesh.

AIMS AND METHODS OF THE STUDY

With all these characteristics, the Social Work and Research Centre offers a very pertinent and interesting case study for ICED's international project described in the Preface. Its experiences to date contain a variety of significant innovations and practical lessons--both positive and negative --that could be instructive to planners and program managers in other developing countries and elsewhere in India. The basic purpose of this case study, therefore, is to bring some of these lessons to light and make them available to all who might wish to know about them. Its further purpose is to provide an outsider's perspective and commentary that the SWRC itself might find useful as it seeks to broaden and strengthen its own activities.

In particular the study attempts to derive significant operational lessons--both positive and negative--from the SWRC's experiences that can shed useful light on five key questions of wide concern today among policymakers and program planners and managers in many developing countries who are searching for practical ways to improve the quality of family life among the rural poor.

1) How to achieve more effective integration at the local level among various family improvement activities, and better coordination among the various organizations associated with them.

2) How to achieve extensive community participation in the planning, operation, and economic support of such activities in a spirit of self-reliant community cooperation.

3) How to incorporate relevant and cost-effective educational components in these activities to meet the basic learning needs of both their "operators" and their "consumers."

4) How to take fuller advantage of the flexibility of voluntary organizations to complement the rural development efforts of government and to test out innovative approaches that can generate useful guidance for larger-scale government programs.

5) How external assistance organizations, both public and private, can be most helpful to developing country efforts in these directions.

With these objectives in view, the study examines critically the main elements and dimensions of SWRC's program in the context of its rural setting in Rajasthan, including its institutional objectives and evolution, organizational structure and management, program activities and their educational components, staff recruitment and training, costs and finance, and the impacts that SWRC appears to be having on the lives of rural people.

The analysis is based largely on documentation, data, and impressions gathered during two visits to SWRC in Tilonia in November 1976 and June 1977, supplemented by additional information provided by the Director and Joint Director to fill gaps in a preliminary draft of this report they were asked to review. During the above visits extensive informal discussions were held with the managers and various team members of the SWRC, including village workers; program activities and staff meetings were observed on the campus at Tilonia and in villages; records, files, and documents, including earlier progress reports and impact studies, were reviewed and analyzed. Because of time constraints and other practical problems it was not feasible to collect additional fresh village data systematically.

The study, in brief, represents an impartial effort to interpret and assess the SWRC program to date on the basis of observations, discussions, and the analysis of existing records, including both qualitative and quantitative evidence. It is an attempt to understand the specific situations of the SWRC through the perspectives of the participants and to relate those specific details and observations to some broader issues in rural development that confront many developing countries.

THE SWRC'S UNORTHODOX BEGINNINGS

The Social Work and Research Centre entered the field of rural development through an unusual door and in a somewhat controversial manner. Bunker Roy, its

founder-director, initiated his experiment in integrated rural development in the Silora Block of Ajmer District in 1972, with a ground water survey.[1]

As a voluntary organization the Centre departed sharply from the traditional ideologies, style, and strategies of the many voluntary organizations involved in India's rural development whose roots trace back to the independence movement, the social reform movement, the Ghandian movement, and various religious and semi-religious movements of the late 19th and early 20th centuries. Rural social change had been one of the dominant themes in these earlier movements; therefore their programs typically stressed social education, basic education, formal schooling, literacy, and women's education (though some eventually expanded into such areas as agricultural extension, cottage industry, and construction of rural roads and facilities). The founders of the SWRC were similarly interested in rural social change as an ultimate goal, but they believed that economic change was a prerequisite to social change and also the best initial means to mobilize rural people to improve their own lot. Hence they gave primary emphasis at the outset to programs designed to yield direct economic benefits.

The new Centre, despite its name, also deviated from the "social work tradition" in India, which had acquired an urban, middle-class, academic stance. The adherents to this tradition had often addressed themselves to the human problems of urban slums, but they had not generally immersed themselves in the world of rural poverty. Similarly, the kinds of research contemplated by the founders of the new Centre deviated from the concepts and traditions of research popular among academic social and physical scientists. The SWRC's research was to be a much more pragmatic, "dirty hands" type of research, tied directly to action.

It is hardly surprising, therefore, that many experienced people long associated with one or another of the above traditions viewed with considerable skepticism the new Centre's unorthodox entry into rural development with a team of geophysicists and geologists.

The approach that the SWRC's founders proposed to take also differed drastically from the conventional approach to rural development by specialized governmental and international agencies. This customary approach was a

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[1] Bunker Roy, a young university graduate with an M.A. in English literature, an urban middle class family background, and an exclusive schooling experience in Delhi and Dehra Dun, became convinced of the need for a fresh approach to rural development by exposure to the terrible Bihar Famine in 1966-67 and by working as a volunteer on a water development program in Ajmer District with a group of missionaries from 1967 to 1971. These experiences convinced him that a coordinated multipronged approach to rural development involving a large measure of self-help by the rural people was essential to any real progress. With this in mind, he gathered a small group of young university graduates to establish the Social Work and Research Centre.

piecemeal one, involving a series of narrowly focused, single-purpose "sectoral" programs, operated independently and from the top down by various specialized ministries or their even more specialized subdivisions, frequently aided by their specialized counterparts in various external assistance agencies. The SWRC, by contrast, proposed to pursue a quite opposite strategy that sought to integrate these fragmented specialized programs and to build and operate them, not from the top down but from the bottom up.

Moreover, the new Centre did not fit the conventional concept of a "development project" to which most ministries and external assistance agencies have become wedded. The Centre's founders defined their general objectives and guiding principles, but they had not designed the sort of "project plan" that would pass muster, for example, with the World Bank or the UNDP or major bilateral aid agencies. In other words, they had no neat and tidy plan, encompassed by a clear-cut time schedule, that defined in detail the proposed program activities, organizational and administrative arrangements, projected staff, physical inputs, financial requirements, and quantitative targets, and that included built-in evaluation provisions beginning with an initial battery of "baseline surveys" against which to measure future progress.[1]

What Bunker Roy and his colleagues had in mind was not a "development project" of the usual type, but a highly unconventional and flexible experiment that could engender a new kind of rural development "movement."

The SWRC's Objectives

The innovativeness and unconventionality of the new SWRC were manifest in the following themes that emerged strongly and repeatedly in the early statements of its objectives and principles--themes that were to give shape to the Centre's eventual style, infrastructure, and pattern of program activities.[2]

Theme 1: Joint Effort of the Professional and the Farmer in a Move Toward Professionalization of Rural Development.

One of the main functions of SWRC, it was asserted, was "to bridge the gap between the farmer and the professional" and to "establish communication" between the two. The Centre aimed at generating

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[1]In retrospect, it seems most unlikely that the new Centre would ever have gotten off the ground if its young founders had followed conventional "project preparation procedures" and had deferred the launching of SWRC until enough funds were available to insure its survival for the first few years. Moreover, had the new enterprise been strait-jacketed by a pre-tailored "project plan" it could not have evolved in the flexible and ad hoc way it did.

[2]Quotations from The Profile of a Concept in Practice, SWRC, October 1976.

"employment among [urban] specialists by bringing them closer to the problems and life styles of the rural areas." It was to be the Centre's responsibility to "give them facilities, equipment, and the conditions [to enable them] to contribute their best."

In addition to attracting individual professionals, the SWRC aimed at involving technical colleges and other institutions "to carry out specific projects in rural areas where their skill and experience in intermediate technology [could] be of great help."

In the initial stages, the SWRC was to be committed to providing "three basic technical services in rural areas: water development, medical, and educational." The local farmer was not seen merely as a recipient of such technical services, however, but as a participant in development along with the professional. This was symbolized in SWRC's institutional emblem depicting the rural farmer joining hands with the urban professional. In all these symbols and plans, the Centre was visualized as a tool for bringing the modern sector in close contact with the farmer and his rural family life, and for enabling rural people to give the urban specialists a better understanding of rural life and development from a human angle--a process, it was believed, that would also require some "unlearning" by the urban specialists.

Theme 2: Emphasis on Economic Change.

The founder-members strongly argued, as noted earlier, that it was only through economic benefits that any social change could gradually take place, and therefore it was SWRC's major goal to "bring about social change through economic change." This clearly meant that the Centre was to "lay emphasis on providing economic benefits in a direct or indirect form" and it was through such tangible results that the SWRC hoped to "develop faith and confidence in the minds of rural people."

Theme 3: Inter-Institutional Cooperation.

It was stressed at the outset that it was essential for SWRC to "establish a good working relationship with the State Government in all programmes, to cooperate and seek State Government help in all matters and get their approval before implementing any programme...." It was not the purpose of SWRC to compete with the services being provided by government but to supplement and reinforce them. In addition to involving the state government, the SWRC was to seek "help of other rural based institutions working toward the same objectives." The Centre was thus seen as an institutional partner among many others and was "not to embark on any development activity in isolation."

Theme 4: Integration, Economy, and Replicability.

The Centre was to "emphasize an integrated approach to rural development" with a view to providing different services "from one centre--one campus" to the rural community. A strong effort was to be

made to "give an economically self-supporting base" to the Centre; i.e., "to generate enough income by giving the services on a 'no profit-no loss' basis." In short, the aim was "to provide a simple, cheap and effective technical and socio-economic service" that could be replicated in other areas.

THE RURAL SETTING

The founders of SWRC could hardly be accused of stacking the cards in favor of easy success for their experiment. Indeed, if it could be made to work under the rugged conditions in the Silora Block of Ajmer District it could probably work anywhere.

Rajasthan, situated in northwestern India between the Indo-Gangetic plains and the Deccan Plateau, is one of India's largest, driest, and poorest states. Its 25 million population in 1971 had a per capita income of Rs 575 (about US$67) against a nationwide average of Rs 645. Its literacy rate was barely 19 percent (less than 14 percent in rural areas) compared to 30 percent for all India. Its health expenditures in recent years averaged Rs 16 per capita compared to a national average of Rs 28. Rajasthan ranked lowest of all Indian states in family planning in 1973, with 6 percent "acceptors" against 15 percent for the country at large.

Rajasthan's backward economic and social status--notwithstanding its rich cultural heritage--is rooted in its inhospitable ecological conditions, the low state of its agricultural and other technologies, and the low productivity of its labor force--90 percent of which is engaged in agriculture and related activities.

Most of Rajasthan's total land area of 342,274 sq. kilometers (132,152 sq. miles) is arid or semi-arid. Only 17 percent of its limited arable land was irrigated in 1970 (compared to 74 percent in neighboring Punjab State and 22.8 percent for all India), and 62 percent of its villages were classified as having "inadequate water supply."

Silora Block, one of eight administrative subdivisions of Ajmer District where SWRC is based and conducts the major share of its activities, mirrors these same statewide conditions. Most of the land is parched much of the time. The average annual rainfall is only 45.72 mm. (about 18 inches), with recorded fluctuations in recent years from a low of 9 inches in 1965 to a record-breaking high of more than 40 inches in 1976. Its two rivers are dry outside the rainy season. Only 19 percent of the cultivated land (comprising just over half the total land area of 117,000 hectares) is irrigated by tanks and wells. Recent SWRC surveys showed that 2,758 irrigation wells were in use while 2,535 others were out of use because of the inadequate supply or poor chemical quality of the water.

The main rabi (i.e., rainy season) crops in Silora are wheat, barley, and gram; the principal kharif (dry season) crops are bajra, maize, and jowar. Low yields are the norm and crop failures a perennial hazard.

Silora (see map) has only one town (Kishangarh); most of its 80,000 people live in 110 villages, ranging in size from 30 households (about 200 individuals) to more than 500 households (over 3,000 individuals). The average nuclear family has six members; the typical extended family exceeds ten members. Tilonia, the village in which SWRC's "campus" is located, had

Figure 1.

SILORA BLOCK
AJMER DISTRICT
RAJASTHAN
JHAG
SINODIA
KOTRI
BHERVIA
JAJOTA
MANPURA
N
JUNDA
RAMGARH
TYOND
BASRA
NARENA
KARKERI
SINGLA
SURSURA
AMARPURA
NANDPURA
RAMPURA
RELAVATA
MEROKABAS
NALU
TILONIA
S.W.R.C.
BRIJPURA
MANDAVARIA
NORIA
BADGAON
PIPASIYA
NAVAGAON
KISHANGARH
DEEDWARA
MALIVONKIBARI
SILORA
BARANA
UDAIPUR
GODIVANA
RAGHUNATHPURA
KHERA
MUNDLAI
scale
2 1 0 2 4 6
miles

at latest count a population of 1,630 and 263 households.

Agriculture, animal husbandry, and related activities are the main source of employment and means of survival for the great bulk of Silora's population--landowners and landless alike. The land ownership pattern is very unequal. In Tilonia, for example, 74 families have less than 1 hectare; 77 hold from 1 to 2-1/2 hectares, 73 have from 2-1/2 to 5, and only 29 families possess more than 5 hectares. Many of the larger owners are absentee landlords. The landless and near-landless depend heavily on part-time work on other people's land to eke out a bare existence. A marginal number of workers are employed, or partially employed, in secondary occupations such as stone quarrying, construction, and indigenous crafts.

An important sociological feature of the villages, which presented serious difficulties for the new SWRC, is that they are not really communities in the full sense; they are aggregations of separate caste communities. Though the proportions vary, the social structure of most villages includes representation of four main upper castes and an assortment of lower castes, all associated historically with a hierarchy of functions, occupations, and levels of prestige. The upper castes include the Rajputs (the traditional warriors, including "royal" families, now mainly involved in agriculture); the Jats (cultivators); the Brahmins (traditionally the teachers and intellectual class); and the Gujars (the traders and businessmen). The lower castes include the Harijans ("untouchables") and other "scheduled castes," particularly the Regers and Chamars, historically associated with tanning and leatherwork, weaving, cloth printing, and other "inferior" occupations.[1]

A rough sketch map of the physical lay-out of any village clearly demarcates these socioeconomic divisions. The upper caste households generally have "pucca" houses surrounded by stone walls and are physically segregated from the lower caste neighborhoods whose households are typified by "katcha"houses and mud walls.

Although the upper castes enjoy higher status, prestige, and influence and tend to dominate the trades, services, education, and village affairs, membership in a high caste these days does not always mean high income and better living conditions.

This fragmentation of villages into separate caste groups, arranged more or less in a pecking order of prestige and power, makes for the lack of strong and cohesive village-wide institutions and planning and decision-making processes that can serve as instrumentalities of local development. Encouraging the growth of such local organizations, SWRC soon discovered, was at least as difficult a challenge as encouraging the growth of better

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[1]"Scheduled castes" are so called because they are listed on a government schedule of historically disadvantaged groups that, under national policy since Independence, are to be accorded special access to employment, education, and other public services in order to eradicate inequalities of the traditional caste system.

crops and the general improvement of health, nutrition, and education, yet it was a necessary prelude to such general improvement in the conditions of village life. As an early SWRC report observed, "One of the main reasons for many sound economically viable projects failing to yield the expected results is the lack of good reliable grass roots organization...."

SWRC'S ORGANIZATIONAL SET-UP

A Western-trained management expert would be hard put to fit the SWRC into any of the textbook organizational models, yet he would undoubtedly be impressed (and a bit mystified) to discover that SWRC's seemingly loose management system has produced more action and results relative to its size than many rural development organizations patterned after the textbook models.

Part of the explanation is to be found in SWRC's integrated three-tier team approach that combines dynamic central leadership with a wide diffusion of responsibility and initiative among various team members, from the campus-based "specialists" right down to the local village workers. The physical arrangements and close community-like atmosphere of SWRC's central "campus" that constantly brings key team members into close proximity and informal contact are undoubtedly a further part of the explanation.

The campus is a former TB sanitorium on the outskirts of Tilonia, leased to the Centre at a nominal rate by the state government of Rajasthan. This forty-five acre site with its arable land, a complex of facilities, and public transport connections with the towns of Kishangarh (headquarters of Silora Block) and Ajmer to the southwest and with Jaipur to the northwest, provides a very convenient "hub" for SWRC's wide-ranging activities.

In the initial institution-building phase, SWRC's program activities were largely concentrated on the campus, but with the increased emphasis on "outreach," starting in 1975, the locus of program activities has shifted progressively to individual villages, with the campus playing a coordinating and backstopping role. This trend applies not only to the expanded program activities within the Silora Block but also to the spin-off activities of SWRC in the Jawaja Block in Rajasthan and in the northern states of Haryana, Punjab, and Himachal Pradesh.

SWRC is officially registered as a charitable society under a colonial act of 1860 and as such has a governing board responsible for its basic policies. Its primary leadership, however, is provided by Bunker and Aruna Roy who, as a couple, work as the Director and Joint Director under a small, supportive governing board.[1] The Director, who spends much time "on the road,"

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[1]Members of the Governing Body include: President (recently resigned), Professor Ravi J. Matthai, Indian Institute of Management, Vastrapur, Ahmedabad; Vice-President, Dr. K. D. Gangrade, Principal, Delhi School of Social Work; Shri Virendra Prakash, Chief, Projects Apparaisal Division, Planning Commission, Government of India, New Delhi; Shri S. R. Das, Headmaster, Lawrence School, Sanawar, Simla Hills, H.P.; Shri P. S. Dwivedi, Lecturer, St. Stephen's College, Delhi; Shri Sanjit Roy, Director, SWRC.

is the chief entrepreneur, liaison with outside organizations, recruiter, fund raiser, and articulator of SWRC's principles, objectives, and achievements. The Joint Director is the able and orderly "inside" administrator, coordinator, and stimulator who keeps a close eye and firm guiding hand on day-to-day operations, including human relations, logistics, and financial affairs. It is an effective division of labor that matches the leaders' complementary talents.

The three-tier team operating in the Silora Block as of mid-1977 included fourteen "specialists" (with university or technical degrees), who have immediate responsibility for particular program activities; twenty-six local "professionals," such as auxiliary nurse midwives (ANMs), agricultural assistants, craft teachers, pharmaceutical compounders, balwadi (preschool) teachers, and experimental primary teachers; and fifty-four "field workers," including such "paraprofessionals" as village health workers (VHWs), dais (traditional birth attendants), and "helpers" in various program activities, plus an assortment of custodial and other support personnel. The total team numbered ninety-five members in the Silora Block in 1977. In addition, another forty-five members were attached to three SWRC outposts in other areas.

The "specialists" are almost all from other parts of India, whereas the "professionals" and "paraprofessionals" are largely local. The team members are not strictly "volunteers"; they are all on SWRC's payroll. The top "specialists" receive salaries in line with or somewhat above corresponding government scales; the wages of the "professionals" and field workers are commensurate with those prevailing in the local market. Not surprisingly, there is a substantial turnover among the "specialists," who are generally fresh graduates that view a limited stint with SWRC as a challenging and valuable experience and as a useful prelude to a "regular" career post befitting their particular educational background and professional training. A few of the key specialists, however, have remained from the start and provide important continuity.

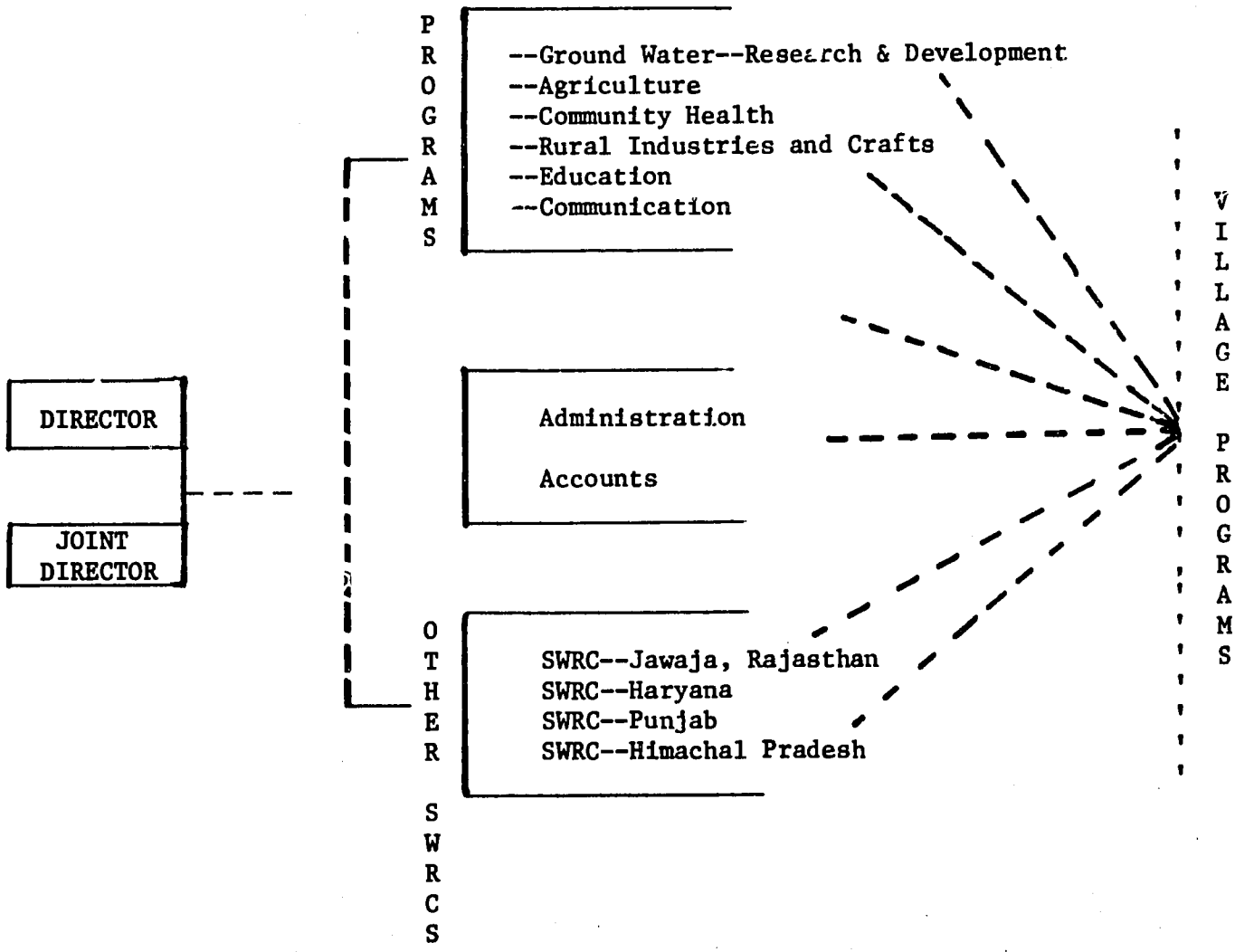
The accent of SWRC has been on youth. The "specialists" range in age from 22 to 28 (except for the Director and Joint Director who, five years after the program was established, had reached the ripe old age of 31 and 30, respectively!). Most of the local "professionals" and "paraprofessionals" are equally young--except for the dais who are mostly in their 40s or early 50s.

No two-dimensional organization chart could possibly give an adequate picture of the internal relations and dynamics of SWRC. However, the simplified diagram in Figure 1 may provide at least a useful sketch of its internal structure.

INCOME AND EXPENDITURES

From the outset the SWRC has had to piece together its annual budget and program pattern largely from grants received from a variety of private and government agencies. Since most of these grants have been tied to specific projects and purposes of special interest to the donors, this has left the SWRC with very limited "uncommitted" funds with which to cover general organizational and administrative costs, or to expand ongoing programs, or to initiate new ones in line with its own priorities.

Figure 1. THE ORGANIZATIONAL SET-UP



Oxfam-UK has been a consistent and generous supporter of the SWRC and has been mindful of its need for some flexible "general" funds. Other important private contributors have included Oxfam-Canada, Catholic Relief Service, and Christian Aid, whose grants have been mainly for specific purposes, including items of needed equipment. (Not included in SWRC's annual income statements are numerous important gifts of equipment from private organizations that had an estimated value exceeding Rs 500,000 by the end of 1976.)

The state government of Rajasthan, through its various specialized agencies, has also been an important supporter and "client" of SWRC from the beginning. More recently other state governments have provided funding for SWRC to undertake specific activities in selected areas of their states, and central ministries of the Government of India--especially the Ministry of Education--have sponsored a number of specific SWRC studies and experiments.

The heavy financial dependence of the SWRC in its first four years on overseas voluntary agencies was naturally a cause for concern (even though these grants were absolutely essential to getting the new organization under way and were much appreciated). However, as the figures in Table 1 demonstrate, the percentage of new grant funds coming from overseas declined sharply from 1975 to 1976, with offsetting increases in grants from domestic government agencies and by a sizeable increase in SWRC's own earnings.

TABLE 1

Sources of SWRC's Financial Income
1975 and 1976

		1975	1976
Total Income (excluding gifts of equipment)		Rs 855,750*	Rs 821,781
Total Grants		85%	69%
From Private Organizations	(62%)		(30%)
From Government Agencies	(38%)		(70%)
Income Earned by SWRC		15%	31%
		100%	100%

*Some of the 1975 grant funds were carried over to 1976, making possible an increase in total expenditures from Rs 760,278 in 1975 to Rs 890,393 in 1976.

Along with this shift in the sources of income there was also a sizeable shift in the SWRC's pattern of expenditures between 1975 and 1976 as shown in Table 2. Overall expenditures rose from Rs 760,278 to Rs 890,393, but the proportions shifted substantially, reflecting (1) a decline in the percentage going to overall management, (2) a sharp rise in the share going to projects outside Silora, (3) a sharp decline in the Ground Water Development and Research Program within Silora, and lesser reductions in the share devoted to

the Community Health and Education programs in Silora. The reasons for these shifts will become apparent when these various programs are discussed in later chapters.

TABLE 2

Recent Shifts in the Pattern of SWRC Program Expenditures

		1975		1976
Total Expenditures		Rs 760,278		Rs 890,393
Overall Management Costs		17%		15%
Program Costs		83%		85%
Breakdown by Programs:				
a) Ground Water Development and Research		27.3%		4%
b) Agriculture		10.4%		10%
c) Community Health		21.0%		15%
d) Education and Crafts		19.3%		18%
e) Rural Industries		----		16%
f) SWRC--Jawaja	15.8%		13%	
g) SWRC--Haryana	6.3%		15%	
h) SWRC--Punjab	0.5%	22.0%	9%	37%
		100.0%		100%

Finally, the sharp rise in the proportion of overall income represented by Income Earned by SWRC (from 15 percent in 1975 to 31 percent in 1976) was also accompanied by significant shifts in the amount coming from various programs (see Table 3). The Craft and Rural Industries Programs in Silora had become the big earners, replacing the Ground Water Development and Research Program in this role. The Health Program and the Education Programs, the two biggest spenders, represented the lowest earners. (This is not to suggest that they were less important or desirable but simply that SWRC was still farthest away in these areas from becoming self-financing.)

TABLE 3

Breakdown of SWRC Earnings by Program

	1975	1976
Ground Water Program	52%	9%
Crafts and Rural Industries	16%	47%
Community Health	12%	9%
Agriculture	10%	11%
Miscellaneous	10%	24%
	100%	100%

TWO PHASES OF SWRC'S DEVELOPMENT

An analytical review of the SWRC's development from its inception in 1972 to the cut-off point of the present study in mid-1977 reveals a distinct turning point in 1975. Chapter 2 reviews what we shall call "the initial phase of development," roughly up to mid-1975. The following four chapters (3 through 6) deal with what might be termed, "the beginning of a new phase" in which the SWRC began building on the foundations laid down in the initial phase and also began branching out to further geographical areas. For convenience, these four chapters deal respectively with Community Health, Water Development, Rural Industries, and Education. It should be borne in mind, however, that there were growing linkages and increasing integration among the activities in these four areas.

CHAPTER 2

THE SWRC'S INITIAL PHASE OF DEVELOPMENT

During the first three years the new organization was feeling its way, formulating and reformulating specific objectives and action plans, testing its strategy, and initiating operations in its three priority program areas: water development, health, and education. This period was also marked by suspicion and resistance from the rural communities in and around Tilonia, and by a mixture of interest, curiosity, skepticism, and controversy on the part of outside observers.

WATER DEVELOPMENT: THE OPENING WEDGE

Water, as noted earlier, was the critical bottleneck to agricultural development in the Silora Block and hence to improving the income and living conditions of the people. Credit was a related bottleneck, for in order to develop potential irrigation supplies farmers needed credit. But under the regulations of the credit agencies any application for credit had to be supported by a detailed and competent ground water survey of the area that demonstrated promising water potentialities. The new Centre's first concerted effort, therefore, was aimed directly at breaking these bottlenecks. In the words of a 1975 SWRC follow-up report, "The need for this service was seen as one of the most crucial ones in the area and the Centre's work was initiated with a ground water survey of the Silora Block." This project soon received "support, recognition, and approval of the Government of Rajasthan."

The technical group began by conducting a preliminary survey of the ground water potential of some 51 villages in the Silora Block of Ajmer District--a project the Rural Electrification Corporation was willing to support in preparation for the eventual electrification of the whole Block. This was soon followed by another much more detailed ground water survey for the Agricultural Refinance Corporation (ARC), covering all 110 villages in the Block. This comprehensive survey examined the ground water potential, soil and water quality, potentialities for agricultural extension programs, and possibilities of extending institutional credit to farmers. In 1975-76, after scrutinizing SWRC's report, the Union Bank of India with the approval of the Reserve Bank of India, sanctioned a sum of Rs 35 lakhs for the development of minor irrigation in the Silora Block, mainly for small and marginal farmers.

Meantime the SWRC made an effort to follow up on its water surveys by obtaining equipment and tools (including a mobile drilling rig, drilling accessories, two compressors, two tractors, and three jeeps) with which to

provide direct customer services to individual farmers and organizations for improving their water supply. In 1974-75 SWRC helped about a hundred farmers with surveys of their lands for locating water spots and with drilling services. Similar services were provided to organizations in Udaipur and Chittorgarh Districts. The customers were charged fees for the services on a "no profit-no loss" basis, with charges adjusted to their ability to pay.

The water development team also initiated a new research program in search of practical methods to solve the critical water balance problem of the area, which had increasingly troubled these young professionals. More water was being taken out from the open wells in many areas than the amount percolating into the ground as recharge, thus lowering the water table. They soon discovered that many of the irrigation-cum-percolation tanks were constructed in such a way that the water could not seep into the ground. Through experimentation they determined that the percolation tanks could be revitalized by perforating the rocky bed beneath them to soft layers below with the help of the drilling rig. This method was evaluated and endorsed by the Rajasthan Ground Water Department (that provided the funds for this research program) and by experts from the University of Rourkee, the UNDP, UNICEF, and the International Commission on Irrigation and Drainage. This opened up an important new activity.

AGRICULTURAL EXTENSION

Another logical follow-up to the initial water development and research program was to get started on an agricultural extension program aimed at assisting farmers to apply new technologies and raise their productivity. The SWRC felt, however, that rather than to start right off with trained agricultural experts (who might assume they had all the answers) it would be better to begin with less trained people who were sympathetic to the farmers and their problems and willing to listen and to learn. Thus the new Agricultural Section of SWRC was initiated by two young men, one a history graduate with a strong interest in agriculture; the other a gardener's son. These young men joined hands with the water development specialists and started working on questions of irrigation and agricultural production and on establishing a direct dialogue with farmers.

The government of Rajasthan gave formal approval for cultivating the land on SWRC's campus for research and demonstration purposes in November 1974, and this gave a boost to SWRC's new agricultural program. New varieties of wheat were sown on demonstration plots along with additional crops such as maize, bajra, jowar, jeera, sunflower, dhania, grams, sesame, groundnut, mustard, and hybrid grass. A small program for distribution of seeds, fertilizers, pesticides, fruit plants, and saplings right to the doorstep of the farmers (a service they had never before experienced) was gradually added to the demonstration program.

As part of the extension services the Agricultural Section also set up a special training program for marginal farmers in advance of the rabi and kharif seasons. These training sessions were attended by some fifty to a hundred farmers, with visiting state government agricultural experts serving as resource persons. Once Tilonia became recognized as a training center of sorts, the district agricultural officer started using the research and demonstration plots for popularizing the new varieties of seeds and fertilizer application.

BREAKING INTO THE HEALTH FIELD

By the middle of 1973, SWRC's original team of geophysicists, geologists, agricultural extension workers, a geographer, and an economist was strengthened by the addition of a medical social worker, a doctor, a pharmaceutical compounder, and several local field workers. While the technical specialists' team attempted to deal with the water and agricultural extension problems, the female medical social worker, trained at the Tata Institute of Social Sciences in Bombay, struggled with the social and human aspects of the local community of Tilonia and other nearby villages to explore possibilities for social services, including medical and educational programs, and to prepare the ground for the villagers' acceptance of more approaches in the field of health.

As some of the "old-timers" remember it now, these urban-educated graduates had a somewhat "simplistic and romantic notion of villages and the villagers" which had to be modified through extensive contacts with the community that was strongly resistant and hostile toward the newcomers. The young folks' occupancy of the abandoned TB sanitarium was viewed with suspicion by the villagers, who wondered why they were there. The modern, unmarried social worker walking around the dusty roads of Tilonia, who could communicate in the beginning only in Hindi and not in the local Marwari dialect, was watched with particular curiosity. Her companionship with young men on the campus became a topic for spicy gossip among the villagers. Her promotional efforts in preventive health care and education seemed to be unappealing to villagers, who made it clear that if the group really wanted to do something useful they could provide immediate relief from pain--which meant curative services.

To meet the villagers' demand and to use this as an entry point to the community's recognition and trust, a dispensary was established on the SWRC campus. It soon began to give tangible results and attracted a growing flow of patients from Tilonia and other nearby villages. In the following two years, from 1973 to 1975, 60,000 patients were treated at the dispensary and two "eye camps" were held for patients from twenty-three villages with eye problems.

In spite of this apparent success, the Western system of medicine continued to be in competition with the traditional and more familiar local system. As the medical social worker put it, "The knowledge that the populace lacked faith in modern medication; were frightened of doctors and hospitals, associating them only with death; and had easy access to vaids, fakirs, and Babas, placed before us a maze that was both interesting and difficult." The old wives' tales were hard to combat: "Localized pain is branded and bled; typhoid remains untreated due to a belief that medicines prevent the disease from leaving the body;disinfected wells are believed to cause sterility and impotency; and the cutting of the umbilical cord by the midwife is equated with murder."

To pave the way beyond the curative treatment at the dispensary and to broaden SWRC's community contacts, the medical social worker conducted a survey of the surrounding community with help from some local educated youth. "This in fact proved to be the crucial aspect since it provided a clear insight into the community, its social fabric, its stratification,

power controls, leadership patterns, economic levels and caste factions, thus helping us build a very firm base and allowing us to tap the enormous amount of local resources available within the villages."[1]

It was still premature to bring preventive health services directly to the villages (though that had been the initial hope). The villagers were not yet ready to get into the health business themselves, but their burgeoning demand for curative medical services prompted SWRC to establish in February 1975 a subdispensary in Chota Naraina in the northern section of Silora Block.

A SHAKY START ON EDUCATION

Education--the third element of the originally intended integrated package--was initially interpreted by SWRC as literacy. Overcoming the widespread illiteracy in the area seemed as great a challenge as overcoming the shortage of water.

The preliminary work on literacy began in June 1973 when a "100% literacy" program was launched for the village of Tilonia in collaboration with the Ajmer Adult Literacy Association, the Inspectorate of Schools, and the Silora Block Development Office. Fourteen literacy classes were organized for different groups of boys and girls, men and women. Teachers from the local primary and middle schools, field workers associated with SWRC, and other volunteers were recruited to conduct the classes. They were given freedom to plan their own class schedules; records of attendance were maintained; the Adult Education Association carefully supervised the program and provided examiners to evaluate the results.

Soon the kinds of difficulties and disappointments experienced by many conventional literacy campaigns throughout the developing world began to appear. The villagers' attendance, especially among the Jats, continued to fall sharply; the teaching materials proved uninspiring; most teachers seemed to lack initiative, interest, and ingenuity in dealing with more mature, out-of-school learners; and many of them left as soon as the school year ended in May.

One notable exception that proved the rule was Sudama, the local priest's son who worked with other SWRC programs. He made a special effort to establish close relations with members of his literacy class and achieved impressive results. The Third Report on the Adult Literacy Programme in the Village Tilonia (May-June 1974) made note of this exceptional success case: "In view of the excellent service he (Sudama) rendered to the programme, the Secretary, Adult Education Association, gave him [a] hundred percent raise in his allowance." The same report, however, described serious difficulties in the program elsewhere, which finally led to closing down the fourteen literacy classes. It was clear that a different educational strategy was needed, one that also addressed other important learning needs and that did not equate "adult education" simply with "literacy."

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[1] A Dossier on Basic Education, SWRC, undated.

Other modest forays were made into the general field of education in 1974. A balwadi (preschool) was created at the campus for the children of women attending the craft center. Preliminary efforts were made to initiate an experimental program in nonformal education under a sponsorship grant from the Centre for Educational Technology, Ministry of Education, Government of India. The Directorate of Adult Education in the same ministry sponsored a survey of existing institutional and other potential educational resources in the area and the extent of their utilization.

INITIAL ATTENTION TO RURAL INDUSTRY AND CREDIT

Although rural industry had not been one of the initial priority target areas of the SWRC, it soon became one. A study of socioeconomic conditions in seventeen villages in the Silora Block was conducted by the SWRC group in February-March 1974, with funding from the Rajasthan Khadi and Village Industries Board located in Jaipur. This study highlighted the need for new programs for the poorer sections of rural artisans craftsmen, and women in the area. A new women's program was soon established to give local women an opportunity to use their traditional Rajasthani skills to make clothing and other craft items for sale in the cities as well as for local use.

During that year it was felt by all the members of the SWRC that until institutional credit was organized for the rural poor the integrated approach to development would be seriously inhibited. This belief encouraged the SWRC to initiate discussions for the opening of a rural branch of a bank. After much effort and much resistance on all fronts the bank was established (on the SWRC campus) and the first few loans were made to craftsmen under the rural industries program. By the middle of 1975, ten loan applications had been processed for local tanners under the Differential Interest Rate (DIR) Scheme for poor farmers and artisans.

REACTIONS OF OUTSIDERS

While key people in some state and local government agencies and Oxfam were consistently supportive of SWRC, and some central government agencies were beginning to move in with a helping hand, the image of SWRC in different rural development circles, both domestic and international, was a mixed one. The program was watched by different observers with great interest and curiosity, but many of their questions remained unanswered in the early stages of SWRC's development.

The notion of starting a voluntary rural development program with some water surveys and with an emphasis on economic change still seemed strange to many who had grown up in the "social welfare" tradition. The idea of recruiting unemployed urban graduates to work with the rural people struck some as an example of technocracy run by amateurs, and others as one more of those Utopian notions that was bound to fail. Even if SWRC could manage to get a few specialists to rural Rajasthan, it was argued, the elitist orientations they brought with them could hardly survive the challenges of rural resistance. Those familiar with SWRC's ground water research and technical advice to farmers argued that these

services were useful only for the big farmers who could afford them and that SWRC's economic development approach did not reflect a "people's approach" or a concern for the poorer sections of the rural communities. The emphasis on institutional cooperation with government agencies seemed to be rather unusual in the light of experience shared by many voluntary agencies and was criticized by some as an attempt to maintain the status quo. Those who favored careful experimentation and systematic evaluation of "pilot projects" as against hasty and speedy expansion of experimental programs questioned the wisdom of starting additional SWRC centers in other areas before the Silora experiment had "proved itself." While all these arguments were not necessarily presented in a united front, they could be heard during those days in different circles and different parts of the country.

However, there were enthusiastic advocates and supporters as well as doubters and critics. The founders of the SWRC had gathered an initial group of sympathizers, and as word spread and more and more visitors came to observe, the group became steadily larger. All this interest and attention surrounded SWRC with a lively and wholesome atmosphere of controversy.

A COMMENTARY ON SWRC'S INITIAL PERIOD

The first thing that impresses an objective outside observer is that the SWRC not only survived its first three formative years as a going concern--no mean accomplishment in itself--but laid useful foundations for the future, developed a momentum, and learned some important lessons that were fed back into the operation with all deliberate speed. A few, though not all, of the initially stated objectives had begun to be realized, but major challenges clearly remained open for more forceful and imaginative attack in the next phase. The following accomplishments and disappointments seem especially noteworthy.

A Human Resource Base: By mid-1975 SWRC's founders were well on the way to proving their contention that able and well-educated young urban "specialists" could be attracted into rural service, could learn from the rural people and adapt to their different environment and way of life, and by working in partnership with them could make a useful contribution to improving their lives. A number of such urban young people--with specialties ranging from medicine, social work, economics, geology, geophysics, and agriculture to the humanities--had joined the new Centre, had worked hard and shown initiative, and had begun to make a difference. This core team had begun to flesh out with the addition of a few local "professionals" and "field workers," though many more such additions would be needed. The management side of this human resources base was significantly strengthened in 1975 when Aruna Roy resigned her prestigious post in the Indian Administrative Service, for which she had been especially trained, and became the Joint Director of SWRC.

Program Development: Two of the three priority programs--in health and in water development and research--had moved ahead rapidly and already scored impressive accomplishments. This could not be said, however, of the other priority area, education, where the "100% literacy campaign" had

misfired rather badly and where initiatives on other fronts were as yet little more than probings. A promising fourth program area--rural industries-- had been identified and was beginning to be opened up, with a sharp focus on helping women and members of the poorest lower castes.

Inter-Institutional Cooperation: A widening network of institutional relations was getting established and spreading out in various directions--including ties with government agencies ranging from the block and district to the state and national levels, with both domestic and overseas voluntary agencies, and even with international organizations. These ties found expression not only in moral and financial support for SWRC but in valuable operational cooperation in the field and a productive dialogue with all sorts of interested and interesting people. Many observers from this institutional network had visited the Tilonia campus and shared their reactions--both critical and enthusiastic--with SWRC members. All these contacts, whether formal or informal, helped maintain a two-way flow of communication and a lively dialogue with the outside world. The urban-reared specialists on the campus who were in close daily communication with one another and parties to this external dialogue could hardly feel isolated in the village of Tilonia.

Partnership with the Villagers: One of the most serious gaps that still remained at the end of the initial phase was the lack of a strong outreach dimension to SWRC's programs. Relatively little progress had yet been made in forming active partnerships with villagers for helping them to develop their own self-improvement programs.

Up to now, in the institution-building stage, the bulk of program activities, other than the water surveys and village surveys, had been concentrated at the campus. Literally thousands of villagers had come there for medical care; groups of small farmers had come to see agricultural demonstrations; women had come for craft training and production, bringing their young children along for day care in the balwadi. This was certainly all to the good. It meant rendering useful services that people wanted badly enough to come and get them. It was a way to get to know and win the confidence of villagers and to overcome their suspicions and resistance.

But it was still not the same thing as the partnership between the urban experts and the rural people or the mobilization of community resources for economic and social change that SWRC had set out to achieve. And SWRC's managers were acutely aware that there is a thin but important line for any new rural institution between becoming a facilitating and backstopping instrumentality of an authentic bottom-up, self-help movement and remaining a separate self-contained institution that risks making rural people dependent rather than self-reliant.

The SWRC team could hardly be faulted for not having moved the center of gravity from the campus to the villages in so short a time. They had meant to and they still intended to, but the political, psychological and sociological obstacles proved to be considerably more complex than had been anticipated. This remained, therefore, a major item of unfinished business to be tackled in the next phase.

Guidelines for the Next Phase: There were valuable lessons to be culled from these first three years of operational experience, and these were not lost on the SWRC team.

They could take comfort in the fact that the initial thrust into the water problem had evidently been wisely aimed, well-executed, and was likely to pay important future dividends. But if these dividends were to be shared by the smallest and poorest subsistence farm families, ways would have to be found to put together a "package" of complementary inputs and other essentials to help the poor get moving. This would require among other things a broader and less conventional approach to agricultural extension.

The dispensary had proved to be effective in attracting a rural clientele and providing services they very much wanted, but it was still a form of service to the community rather than a partnership with the community. Moreover, unless a strong locally-based preventive health movement were established that attacked the root causes of ill-health, it would never be possible to catch up with the need and demand for clinic-based curative services. By the same token, unless a strong, community-based program were established for eradicating the causes of ill-health and for spreading the practice of rational family planning and responsible parenthood, sickness and disease would continue to plague every village and continue to be exacerbated by excessive population growth.

The failure of the literacy program proved once more that a fresher, more innovative, much more functional approach was needed, not simply to literacy but to all the basic learning needs of villagers, young and old. This fresh approach needed to link education effectively with other development activities, to build it around clients' needs, to make it more relevant, interesting, and useful to them, and to make education an integral part of a package of development activities, not an isolated activity on its own or simply an end in itself.

Members of the SWRC team were keenly aware of these various strengths and weaknesses and of the priority tasks that lay ahead as they took stock of their accumulated experience in the first months of 1975. The next four chapters examine what they did about it.

CHAPTER 3

THE COMMUNITY HEALTH PROGRAM

The key themes that marked the beginnings of a second stage in SWRC's development, beginning in early 1975, were: (1) a stronger emphasis on "outreach" and on directly involving villagers in the programs; (2) a more integrated approach to building programs around clients' needs and to linking SWRC activities with those of other institutions and services; (3) a more selective and focused attempt to reach the poorer sections of communities with programs for economic and social benefits; and (4) stronger efforts to incorporate appropriate educational components in various programs to meet the crucial training and learning needs associated with them.

The Community Health Program exemplified these themes as it began to move out from the dispensaries and directly into the villages. It was a slow and difficult process, but it made significant headway between 1975 and 1977.

BRINGING HEALTH CARE TO THE VILLAGES

SWRC's dispensary at Tilonia and its subdispensary at Chota Naraina had added a much needed supplement to the existing health care system in Silora Block.[1] However, this hospital- and clinic-centered health care system had three major deficiencies. First, it required villagers to come to the health center for services, which for many involved not only a difficult if not impossible journey but a frightening confrontation with the "modern" world of science and technology. Second, the almost exclusive focus of the system on curative medicine meant that preventive health measures, including health education, were getting at best a very low priority. Third, the practical costs of using this system were often prohibitive for the

[1] This system included: a government hospital in Kishangarh (19 km. southwest of Tilonia); a larger and better equipped hospital in the district town of Ajmer; a Primary Health Care Centre in Rupangar, north of Tilonia; a government Ayurvedic hospital; a government dispensary and family planning center in Harmara (3 km. north of Tilonia). The district health office operated a few specialized programs dealing, for example, with malaria eradication and vaccinations, and was serving five villages directly through government health workers. A number of private practitioners operated in the areas, mainly in and around the towns of Kishangarh and Ajmer.

poorest families, even when the services were nominally "free" or heavily subsidized.

The New Community-based Health Strategy

By the spring of 1975, having won the trust of many villagers through its popular dispensary services and having learned much more about the inner workings of villages through the investigations of its medical social worker, SWRC was ready to embark on a broader health care strategy designed eventually "to provide basic health care services at the doorstep in every village in Silora Block."

This new strategy, devised by the resident campus doctor, the medical social worker, and a newly arrived lady doctor, adapted the Chinese concept of the "barefoot doctor" to the conditions of rural Rajasthan. Its stated long term objectives were:

-- to make basic health care available in every village;

-- to utilize all available skilled, semi-skilled, and unskilled resource personnel within the community;

-- to disseminate the skills to the lowest possible levels to gradually make the village a self-sufficient unit of health;

-- to work towards increased education and awareness among villagers since these are the sustaining factors in development;

-- to provide the necessary guidance and supervision through the use of qualified professionals;

-- to incorporate health into the farmer's way of life rather than abstract it and treat it as a separate entity.[1]

Underlying the new strategy was the concept of an integrated "health team" with a new division of labor between the team members at the local level and the more highly trained members above the village level. In practice, during the developmental period, this new SWRC health team usually included a medical doctor, a medical social worker, two to three auxiliary nurse midwives (ANMs), a compounder, two to three field assistants trained in health, and an expanding number of village level health workers (VHWs).

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[1] Community Health Programmes, SWRC, December 1976.

A procedure was devised for inviting individual villages to participate in the system by their own choice, with the clear understanding that in so doing they would have to accept certain community-wide responsibilities for making it work and for insuring that the benefits were available to all subgroups in the village, including the poorest and most disadvantaged. When the scheme was first tried out in June 1975 the villages took considerable convincing, but as word spread, more and more villages expressed interest in having their own health service.

The procedure generally begins with a dialogue between health team members from the Tilonia campus and the Gram Sabha--the local village organization--that leads eventually to a broad-based village decision to participate, the selection of their own VHW, and a somewhat formal contract with SWRC. Following is a brief eye-witness account of how the procedure worked in the village of Kathoda on a cold November evening in 1976. By then the central health team was beginning to make contact with villages beyond a 10 km. radius from Tilonia.

Kathoda is a small village of about thirty-five households, 25 kms. northeast of Tilonia and distant from any pucca road or bus service. Only a jeep can make its way through to the village and only the local people can find their way in the open sandy desert land with no roads or signs. Its residents had heard only vaguely about the work of SWRC, but Sudama, one of the health assistants from Tilonia, had paved the way for an initial meeting by contacting a few of the village elders in advance.

After a bumpy jeep ride for about two hours, the health team arrived that cold evening in November in Kathoda at about 8 p.m. because that was the only convenient time to find the villagers in their homes. The local group of prominent Rajputs and Jats and a few others began to gather together in the moonlight outside the big compound wall of a pucca house of a Rajput family. The health team made it firmly clear that the meeting would not begin until they got representatives of all different sections of the village including the Harijans, Malis, Chamars, and others. Messages were sent in all directions and men began to arrive one by one. It took about two hours to gather a group of about twenty to twenty-two men, giving the team a clear sense of endless time that was always at hand in the village surroundings.

Sudama, who was experienced by this time in conducting such meetings, told the group briefly about SWRC and its health program. The first objective of the meeting was achieved when the group agreed that there were no medical facilities in the village or nearby, and that it would be very helpful for the village to have its own health program. The team also explained that each household in the village would have to contribute funds for the health scheme each month and the amount could be collectively determined that evening during the meeting. The amount collected each month would be utilized for the local health worker's salary, which would be paid through the Centre. A committee of seven or eight members was appointed to be responsible for collecting money and for supervising and assisting the village health worker. The team also explained that each patient receiving medication from the health worker would have to pay 25 percent of the actual costs of medicines, and Rs 2 for each injection given by the SWRC team members as against Rs 11 generally charged by private physicians in the nearby towns.

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The role of the village health worker was then explained. He was expected to do health work in the mornings and evenings in addition to his daily routines and farm work. He would visit all households in Kathoda once a week irrespective of caste or family income and take care of simple medication for common diseases. More difficult cases would be taken over to the dispensary in Tilonia or to the government hospital in Ajmer or Kishangarh. The health worker was to be trained for two weeks at the Centre and, following this training, he would be expected to visit the Centre every Sunday. The central health team would visit the village every two weeks when the health worker would arrange to set up a camp at the village for the doctor's visit. The Centre would try to help the health worker get a loan to buy a bicycle and the villagers would also help him with his transportation to and from the Centre.

After a fairly open and candid discussion of pros and cons, the local group decided to collect 25 paise from each household each month, and selected the 17 year-old Lakhpat Singh from the local Rajput family, who had completed eight years of schooling, to be the village health worker. The young man's father agreed to this and Lakhpat Singh was greeted by the crowd as the new "doctor sahib" of the village.

The meeting, which lasted nearly two hours, was one of many such village gatherings, but was seen by the doctor as a relatively easy one to handle, characterized by a quick decisionmaking process.

With this meeting, the village of Kathoda was incorporated into SWRC's community health program. Meeting the requirements of the job in terms of age, sex, schooling, and village residence, Lakhpat Singh became a member of the health team.

The pivotal role of the new local health workers can be clearly seen from the following job description:

1) The VHW is expected to visit each home at least once a week and to note down names of patients with health problems and symptoms; to give simple, appropriate treatment on the spot and to refer difficult cases to the SWRC dispensary or to the government hospital. The VHW is generally expected to accompany the patients in such cases and to follow up with regular treatment at home according to doctor's advice.

2) He can dispense the following drugs on his own: aspirin, supra sulfa, sulpha gaunidine, iron, B complex, Diavol, cough mixture, carminative mixture, dehydration mixture, Vitamin A & D capsules, eye drops, ear drops, nose drops, dressing materials for first aid. Other drugs can be administered only with the doctor's prescription.

3) He maintains records of births, deaths, and diseases. The charts and figures are submitted to the SWRC health team each month. He also conducts simple health surveys in his community.

4) He attends the VHW's meetings at the Centre in Tilonia every Sunday. At this time he gets his registers, records, and receipt books checked by the health team. He gives a weekly report of his health

work; discusses his problems with the group and collects medicine for the following week.

5) He collects the villagers' contributions each month and deposits the amount with the SWRC health team before collecting his own salary.

6) He conducts one or more meetings each month with villagers to discuss various problems of sanitation, hygiene, diseases, nutrition, food, etc. He shares his new knowledge with the villagers and brings their problems to the Sunday meetings for discussion and help. For the village meetings he is expected to use and also prepare charts, posters, filmstrips, and other visual materials.

7) He works with the health team on immunization of each child against smallpox, DPT, and maintains immunization records. He maintains height/weight charts for children under 5 and organized special clinics for children of that age group.

8) He is expected to work with men while the local dai works with women to motivate couples for family planning. He maintains records of eligible couples.

9) He is alert to symptoms of TB and refers new cases to the doctor for laboratory tests and x-rays. He works with the positive cases of TB for their follow-up and educates the families to take proper care of TB patients.

10) He works on prevention and treatment of malaria, including sanitation and hygiene.

11) He works with the SWRC field assistant to keep the well water disinfected with the use of bleaching powder as a preventive measure.

12) He organizes regular health clinics in the village in cooperation with the SWRC health team and arranges to get patients together for the doctor's visit.

13) He maintains lists of patients with eye problems including blindness, and maintains lists of patients who need to be operated on. The eye problems are occasionally handled through eye camps.

The initial two-week training at the campus, which is organized twice a year, is aimed at preparing the novice for the performance of the above jobs. The training is practical and attempts to give the basic knowledge of the human body, common diseases and associated symptoms and simple treatment, first aid, deficiency diseases, drugs, hygiene, sanitation, family planning. The training is also intended

to develop essential skills to maintain records, identify symptoms, give treatment, offer first aid, organize and educate community groups, and prepare educational materials.

As a rule, with a view to involving the government personnel in the training program, the district T.B. officer, the district health officer, the gynaecologist, and the eye specialist from the nearby hospital are usually invited in order to combine theory with observation and practice. The VHW is given a cyclostyled copy of a booklet for reference which gives him all the essential information as he works by himself in his village.

Continuing on-the-job training and the referral system are built into this program, which brings the VHW in close contact with the central health team every week. His performance is closely supervised and he constantly receives professional guidance. The doctor visits his village once every two weeks and he can refer difficult cases to the dispensary any time of any day according to needs. The Sunday meetings also provide a mechanism for replenishing medicines and supplies that the workers bring to their respective villages.

The salary range of the VHWs is Rs 50-90 per month (approximately US$5.80 to 10.50). The worker's performance is assessed each month against four goals: basic illness care, preventive measures, community contact, and collection of health data in the village. As his performance improves, he is moved up the graded salary structure.

The Supportive Role of the Local Dais

Although the VHW program covers many areas of curative and preventive health care, the male workers in the village subculture cannot directly deal with women's problems of pregnancy, childbirth, pre- and postnatal care and family planning. A maternity center was established at SWRC in May 1975, but was not sufficient to deal with the problems on the larger scale. The auxiliary nurse midwives from SWRC had tried to deal with some of the women's problems through visits and personal contacts with women and with dais who had been working in those villages as traditional birth attendants. Some of the dais, particularly the one from Tilonia, had brought a few patients to the maternity center for complicated deliveries and many of them were familiar with SWRC's work. However, something more was needed, and bringing the dais directly onto the health team seemed a promising solution.

With this in mind, an attempt was made in early 1977 to organize a two-week training program for traditional dais, but it did not work out. The SWRC staff found that the dais (virtually all illiterate and unaccustomed to "schooling") were apparently unable to grasp what the staff was trying to get across (possibly in too didactic a fashion). It was decided instead to give these twelve middle-aged dais some in-service training with practical demonstrations in the field and to get them to come to Tilonia each Saturday for reinforcement training on such important specifics beyond their customary ken as methods of prenatal care, hygienic deliveries, and infant and maternal nutrition. This approach worked out much better than the more formal training program and was further strengthened when SWRC created an illustrated booklet for the guidance of dais.

Following the VHW program pattern, the dais are expected to attend meetings with the health team every Saturday where they give weekly reports on pregnancies, deliveries, infant diseases, deaths, and related problems in their respective villages. Through their oral reports they help the ANMs maintain village records on these items. They collect folic acid and iron pills for free distribution during the following week among pregnant women and lactating mothers, and compare notes with the health team and with one another. Each dai is equipped with a kit which includes essential tools, medicines, and supplies. While dais can handle normal deliveries in the patients' homes, they are expected to diagnose possible complications and bring difficult cases to the maternity center at SWRC for professional help. All these services are offered by dais for a monthly salary of Rs 40 each (approximately US$4.65). Although the health workers have made some demands for a raise in their salary, dais seem to be quite pleased with the regular income combined with the professionals' recognition of their traditional jobs.

A COMMENTARY

It is obviously too soon to attempt a full scale appraisal of the SWRC's new village-based health program. It is nevertheless possible to present indicative evidence of the achievements thus far, to point out some of the problems encountered, and to draw a few tentative conclusions.

The Contribution of the Dispensaries

The main SWRC dispensary at Tilonia and the newer subdispensary at Chota Naraina have unquestionably made a substantial addition to the curative services available to the rural people in Silora Block, particularly those within 10 km. of Tilonia. From 1973 to mid-1977 the dispensaries treated close to 100,000 patients (including repeat visits by many) at no cost for medical services and only 25 percent of the cost for medicines dispensed. Although there has been no systematic follow-up study, it seems reasonable to assume that this large volume of treatments has had a significant and salutory impact on the health of numerous people in the area. In a country where private spending accounts for approximately 75 percent of total expenditures on health, and government expenditures for only 25 percent, this quasi-public health service has clearly made an important contribution, especially to many poorer families that would otherwise go without modern medical care.

Perhaps equally important, the dispensaries have done much to acquaint villagers with the work and true motives of SWRC, to win their confidence, and thus to pave the way for developing a community-based program that would bring basic health care services to their own doorstep and initiate important preventive health measures.

The Village Health Worker Scheme

This innovative scheme is especially important as a test case of the practical possibilities, problems, and potentialities of developing community-based primary health care systems in poor rural areas. All things considered, it may be said that the experiment got off to an encouraging start in its first two years, notwithstanding inevitable difficulties. Starting from scratch in 1975, the new VHW system by 1977

was actively functioning and yielding discernible benefits in more than a dozen villages with a combined population of about 20,000. This in itself is a remarkable achievement considering the small size of the Tilonia health team, the many practical problems that had to be overcome, and the sizeable workload involved in training, supervising, and backstopping the new "barefoot doctors."

The scattered evidence available indicates that, on the whole, these young local health workers have applied themselves seriously and responsibly to their new duties and have performed remarkably well. Typically, according to their weekly reports, they have averaged four to five individual family visits per day, or better than 100 community-wide house calls per month. The intensity of the service, of course, has varied with the village size, and also with the enthusiasm of the individual VHW and his available time from other responsibilities. The reports also show that they have treated many simple cases of disease or minor injuries on the spot and referred more complicated ones either to an SWRC dispensary or to a more convenient government health facility.

The VHWs have also organized local group meetings to provide non-formal education on good health practices, emphasizing preventive measures and using various audio-visual aids, including some they created themselves. In addition the VHWs have organized their villages for scheduled service visits by health specialists (dealing, for example, with malaria eradication, vaccinations, eye diseases, and water purification) and for the biweekly visits of SWRC health professionals from Tilonia.

Although no systematic check has been made on the attitudes of villagers toward the program, the general response seems to have been almost uniformly favorable. To cite but one example, the Gram Sabha of Tyond village sent a letter to SWRC in June 1977 expressing the general satisfaction of the local people with their VHW's home visits, treatments, and referrals (and also recommending that his salary be increased!).

The SWRC health team at Tilonia has devised a system for regularly evaluating each VHW's performance and for holding monthly evaluation sessions to review the situation and assess results. A recent evaluation report had this to say about some of the VHWs: "(Madanlal Sharma from Tyond) is able to treat minor illnesses effectively. ... He has worked out a referral system (with the Chota Naraina dispensary) and sends slips along with patients." The report goes on to say, "He is an effective motivator. Three women from his village came forward for tubectomies during the family planning camp." The report complains about Ram Karan Jat's irregular work because of his school work and examination. However, it notes "a marked improvement" in the performance of the health worker from Junda. As his clients go to the Primary Health Centre at Rupangarh for curative services, he "lays more stress on preventive care." Kailash Sharma from Gelota has "worked out a very good referral system. ... We have had a fairly good response for family planning from this village." "(In Mandavaria) the 'under fives' have been inoculated against D.P.T. Malaria eradication work is going on with the help of the National Malaria Eradication Programme workers. The wells have been disinfected." "All the

children over 3 months in Tilonia and a majority of children from neighboring villages have been inoculated."

It would be wrong to leave the impression, however, that the new VHW scheme has developed smoothly without a hitch. Two problems in particular have been a cause for concern.

First, some of the local councils (Gram Sabhas) have not held up their end of the bargain adequately; they have shifted the burden of collecting monthly health fees to the VHW,and fee collections have frequently run well below 100 percent (due in part, no doubt, to the extreme poverty of some families). This has jeopardized the self-financing principle and forced the SWRC to absorb some of the cost of VHWs in its own hard-pressed budget.

The second problem has been the high dropout rate among potential and active VHWs. There have been eight dropouts from the first twenty VHWs trained (up to early 1977). Of the second batch of twenty potential VHWs identified after a careful selection process stretching over nine months, only five ultimately showed up for training, and two of these dropped out after a few months of active service (to accept employment with the Dairy Development Corporation).

This problem may perhaps be explained in part by the heavy workload and low financial compensation associated with this presumably "part-time" activity. But a more basic explanation seems to be the scarcity of literate and competent young men in these villages with at least eight years of schooling who are not already otherwise engaged, and the understandable preference of such young men for a better paying full-time job with a more promising future--if one comes along.

This type of "manpower" problem can readily arise in any community-based rural development activity whose success depends heavily on competent and energetic local workers, particularly if they are required to be young men with at least a full primary schooling. Though it is by no means an unsolvable problem that rules out the feasibility of community-based programs, its solution will clearly require an ingenious exploration of alternative possibilities.

The Maternity Program

This recently inaugurated program using ANMs and dais reached about a dozen villages in its first year, but SWRC members are quick to emphasize that the goal of reaching the entire affected population of women and children in Silora Block is still far off.

One of its priority goals is to prevent tetanus and anaemia among pregnant women, lactating mothers, and infants. All 250 women in Tilonia attending the special prenatal clinic, SWRC reports, have been protected against tetanus and anaemia, "but not without terrific resistance for a variety of what appear to be illogical reasons"--one being that "the traditional dai is yet to be fully convinced of the need to give folic acid and iron pills; it appears to go against local beliefs."

Nevertheless, there is no doubt that the traditional dais have by and large begun to use improved, more hygienic techniques in delivering babies, and they are identifying complicated pregnancy cases and referring them to the maternity center for delivery. They are also motivating women for family planning and tubectomies, especially those with four or five children Those SWRC-trained dais who earlier refused to conduct deliveries for lower-caste women have all testified that the Tilonia dai has been helpful in changing these attitudes and eliminating the caste barriers in their work ethic.

The fact that the dais are illiterate has not impeded their effectiveness. They understand their own local culture, are respected by the community for the services they render and, unlike most outsiders, can deal effectively with conservative grandmothers and mothers-in-law even in delicate matters such as family planning. And being older and settled in their way of life, they do not present the kind of "manpower" problem associated with the young male VHWs.

The Demand for Health Services

One of the most convincing signs that SWRC's health program is making headway is the spreading demand for local health services by villages that do not yet have VHWs, and the increasing awareness of health problems and of the desirability of preventive actions being generated by the nonformal educational efforts of the VHWs in their own villages. Two villages in the Jaipur District, over the line from Silora Block, have already joined SWRC's program and have their own VHWs.

Information Needs

The health workers, dais, and ANMs have been collecting, somewhat sporadically, a growing accumulation of local data pertaining to births, deaths, malnutrition, infant weights and sizes, inoculations, family planning candidates and acceptors, and so forth. To a limited extent some of this information has been used for planning health care activities in individual villages. Three villages, for example, have been selected for a concentrated nutritional effort for children under five as a result of local surveys of nutritional status.

On the whole, however, such data have not been systematically collected or analyzed for management and evaluation purposes because of a lack of available talent and because SWRC has been understandably reluctant to burden its busy program "operators" with additional reporting chores at the expense of their regular activities. The time is fast approaching, however, when it will become important for SWRC, both for internal management and external relations purposes, to use some of these early baseline data and additional data yet to be collected to identify with greater specificity the various impacts of the program on local health conditions. It will also be important for SWRC to obtain a more detailed picture of the costs associated with various functions and activities in order to be able to assess results in relation to the costs of achieving them, and to compare the costs of SWRC's approach to health care with alternative approaches.

Integration with Other Health Services

It is important to note that SWRC has not attempted to provide a complete health care system on its own. Given its limited resources, this would

have been impossible, and in any event probably unwise. A well-functioning rural health system requires a well-balanced, well-staffed and equipped,and well-integrated infrastructure running from each village (where the bulk of the services are rendered) to referral, training, supervisory and logistical facilities above the village level. There must be a clear division of labor and functions, good communication, and mutual respect and trust among the various actors at each level.

The SWRC was well advised to direct its own limited resources and energies toward the goal of evolving such a comprehensive and integrated system, not by "going it alone" but by integrating its efforts with the existing government and private health services and facilities in the area. Thus, for example, government health specialists have participated in training SWRC's village health workers; the government has provided medical supplies to SWRC; the VHWs have freely referred difficult local cases not only to SWRC's dispensaries but to other health centers as well, and have cooperated in organizing their villages to receive preventive health services (vaccinations, anti-malaria measures, etc.) from visiting government specialists.

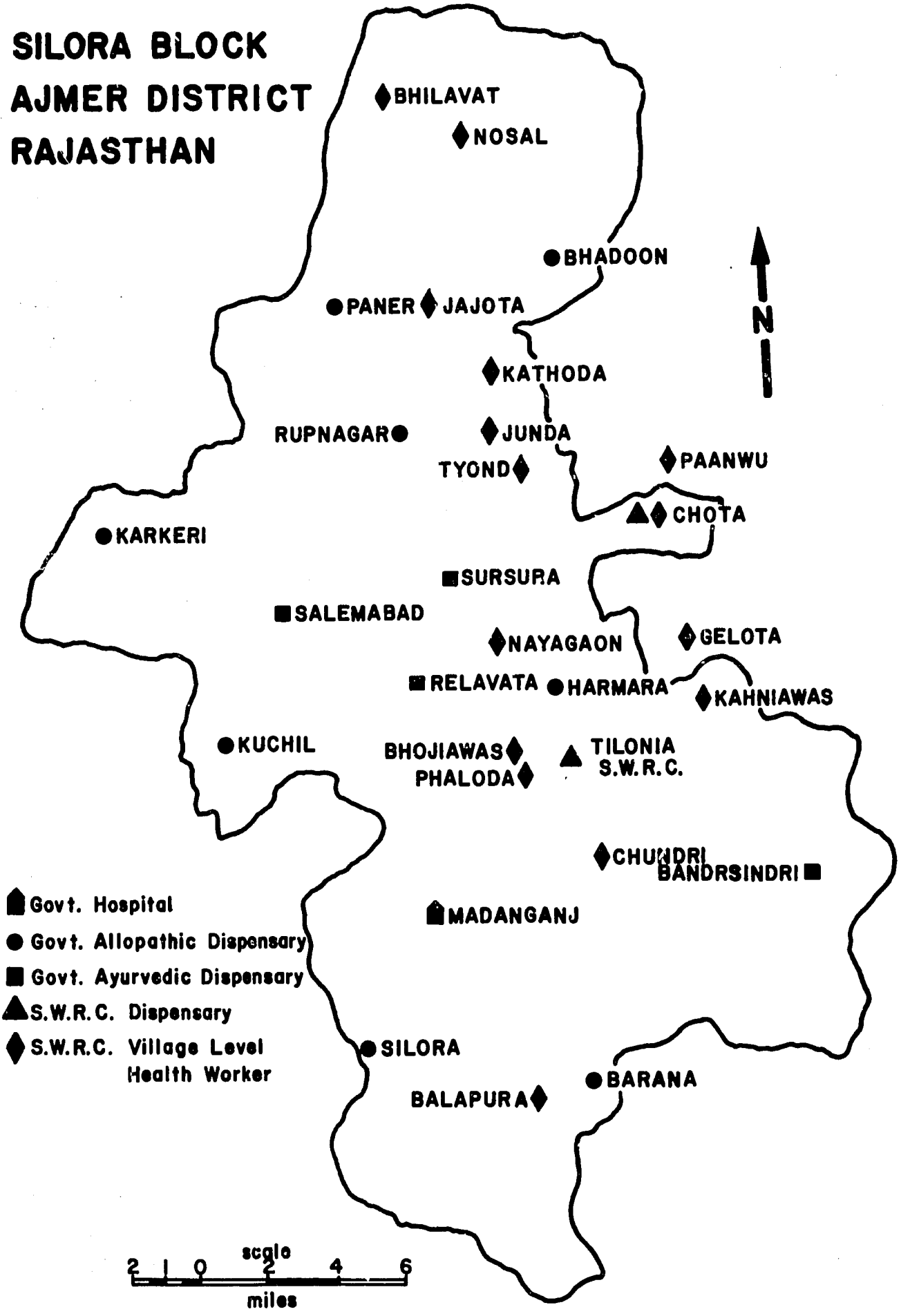
In short, SWRC has dovetailed its health services with the existing health system in the area, as reflected in the map of that system shown in Fig. 2. In so doing, SWRC has made two clearly significant contributions. First, its popular and busy dispensaries have supplemented other existing facilities and expanded a much needed service in the area. Second, and perhaps much more important in the long run, its modest-sized VHW program has introduced an innovative and potentially highly important new dimension to the existing system by providing it with the beginnings of a genuine community base. If the government health authorities are sufficiently impressed with the utility and viability of this demonstration, it could well lead to a major transformation of the old system to the considerable benefit of all concerned.

Costs of the Health Program

How close has SWRC come thus far to its goal of providing effective primary health care services to all villagers, regardless of status, at costs low enough to be borne largely by the villagers themselves? What are the separate costs of the various specific activities and inputs that enter into the overall health program? And how do the costs of SWRC's community-based health approach compare to what the costs of rendering equivalent services would be through the more conventional type of "top-down" health delivery system used by most governments?

Unfortunately, these important questions cannot be answered with any degree of confidence on the basis of the financial data available at the time of this case study. SWRC's accounting system is well designed to serve the needs of auditors and donor agencies, but it does not readily lend itself to the kinds of cost analysis needed for management purposes or for answering the types of questions posed above. Moreover, the costs reflected in SWRC's financial accounts substantially understate some of the real costs involved, such as the cost of certain medicines provided to SWRC by government without charge or below cost, gifts of equipment and the like by private donors, the full rental value of the campus site, and not least of all, the costs of treating patients who are referred by SWRC's village health workers to health facilities other than SWRC's own dispensaries. Finally, it was not feasible for ICED to secure comparative figures on the costs of government health ser-

DISTRIBUTION OF HEALTH SERVICES



vices in the area in order to estimate what it might cost government to render equivalent services to those now being provided by SWRC.

It will be very worthwhile, some time within the next two years, for the government or some other funding source to underwrite a special cost analysis study that could provide reliable answers to the above questions, which bear importantly on the economic viability and replicability of SWRC's approach to basic rural health care.

Meanwhile, the following data available to the present study shed partial light on these questions and tempt one to speculate a bit.

According to financial data provided by the SWRC, total expenditures on the Community Health Program in 1976 were Rs. 113,525 (excluding any contribution to general administration and overhead), or 15 percent of total SWRC program expenditures. The largest items were salaries (53 percent) and medicines (17 percent). Total income received by SWRC from patients' payments for medicines and from community health fees equalled only 10 percent of these total health expenditures, requiring the SWRC to bear the remaining 90 percent.

If one assumes that a total of 20,000 people were served by SWRC's health program (probably a conservative estimate when one combines those included in VHW villages and those in non-VHW villages treated by SWRC dispensaries), the average per capita cost would be in the range of Rs. 5 to 7. These figures do not include, of course, as noted earlier, any subsidized costs to SWRC on medical supplies obtained from the government or the cost of medical services to villagers referred either by VHWs or by SWRC dispensaries for treatment at other health facilities.

The above data in combination with other information suggest the following tentative conclusions and speculations:

First, SWRC is still a long way from achieving a largely self-supporting rural health care system. To make it even 50 percent self-supporting would clearly require very substantial increases in the present levels of community contributions and individual patient fees.

Second, the apparent per capita cost of SWRC's health program appear to be quite modest in terms of the variety and convenience of health services being provided. In other words, the return on the investment is probably unusually high.

Third, it is questionable, however, whether the per capita cost can be held down to the 1976 level if and as SWRC's Community Health Program undergoes sizeable expansion in the future. (According to the Director, "One can easily expect the figures [on the number of people served] to increase by 5 times in the next 5 years".) For one thing, SWRC's small health team at Tilonia is already carrying a very heavy work load and probably needs to be supplemented even to sustain this present load.[1] In addition, it may become

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[1]The Tilonia-based health team that runs the dispensary and also handles the VHWs includes: one doctor (a lady), one medical social worker (a lady), two assistant nurse midwives, and one compounder (pharmacist). The Chota Naraina Dispensary has two ANMs, two field assistants and one compounder.

necessary to increase the salaries of VHWs in order to recruit and hold a sufficient number, unless some workable alternative is found. It may also be necessary, especially in the larger villages, to divide the present heavy workload among two or more VHWs or to share it with some new categories of local workers (such as volunteer "community mothers' assistants," for example, who could take over the work of weighing infants and giving nutritional education and support). The "economies of scale," it would appear, have probably already been largely exhausted; hence from here on personnel costs may well increase as a percentage of rising overall unit costs.

This is not to suggest, it should be emphasized, that the program should not be expanded or that the investment in better health services would not be very worthwhile even at somewhat higher per capita costs. It is merely to caution that adequate rural health services cannot be bought "on the cheap."

Fourth, it seems unlikely that the government could replicate SWRC's integrated community-based health approach at as low a per capita cost as SWRC can achieve (which, again is not to deny the desierability of the government's adopting such a strategy). It would be unrealistic to expect the general run of government employees, however devoted and conscientious they may be, to put in the long and irregular hours and to undergo the extensive personal inconveniences and sacrifices that typify SWRC's health staff. This is quite apart from the practical question of whether and how the unique spirit of the VHW system could be replicated within the framework of a fully governmental program.

Finally, it is clear that a well-functioning community-based rural health care system is bound to have higher per capita costs than the conventional hospital and clinic-based system. As already noted, for a community-based system to function effectively it requires not only a strong institutional and human resource base in each community but a strong infrastructure above the village level to provide essential training, supervisory and referral services, and logistical support. Such an infrastructure in many situations will need to be stronger than the existing structure. There is good reason to expect, however that the increased expenditures required to institute and operate a broadscale, community-based rural primary health care system would be offset by a far more than proportionate improvement in the resulting health services and family health status.

The above speculations, however, should not be taken as gospel. There is urgent need, we suggest, for a thorough cost analysis not only of SWRC's health program but of the entire health system in Silora Block in order to assess the costs and feasibility of extending a well-functioning community-based primary health care system to all villages in the area. Such a cost study in this sample area could be useful throughout rural India.

CHAPTER 4

THE WATER DEVELOPMENT AND AGRICULTURAL PROGRAMS

The ground water development and research activities that the SWRC had undertaken in its initial phase of development had four distinct though related objectives in view: first, to assess the water potential of the area for agricultural purposes; second, to lay the basis for a rural electrification program; third, to develop a technical solution to the water percolation problem that plagued many local water tanks; and fourth, to assist individual farmers to develop and improve their own water supplies.

The initial surveys and research efforts of the initial phase began to pay off in government decisions and actions during the second phase and led to an extension of the previous efforts elsewhere in Silora Block and in other states.

As a result of the SWRC's earlier water survey of fifty-one villages for the Rural Electrification Corporation, the state government of Rajasthan approved a plan in 1975-76 for the electrification of the entire Silora Block by 1978, making it the first block in the state that would achieve full electrification.

Soon after this initial survey for electrification planning purposes, the state government of Rajasthan commissioned the SWRC to conduct a more detailed survey of the entire Silora Block, this time from the point of view of locating specific areas with enough potential water supply for increasing agricultural development. This more extensive and intensive survey carried into the second phase of the SWRC's development. It covered for each subarea the geology, existing and potential ground water supplies, the range of water levels in existing wells, soil and water quality, and the potentials for agricultural extension.

On the basis of this survey and on specific instructions from the Agricultural Refinance Corporation (ARC), the block was then divided into four ecological zones and the SWRC team was asked to recommend specific development strategies for each zone. The team recommended that Zones A, B, & C could be taken up for a program of constructing new dug wells and tube wells and deepening existing wells by boring or blasting. It also recommended certain fertilizer applications, according to water conditions, and chemical treatment where necessary to make the water more suitable for drinking. Zone 4 in the southern part of the block, however, where the water potential was poorest, was recommended only for the extension of existing wells and for application of the drilling techniques developed through SWRC's research for improving the percolation and recharge rates of tanks and ponds.

The latter techniques had won the approval of both national and international water experts and were getting a positive response from farmers. The SWRC in its second phase was therefore given financial support by the Government of India to apply the technique in a drought prone area in another part of Ajmer District.

On the basis of its work with water surveys in Silora Block, the SWRC was requested to undertake similar work in other areas. For example, the Seva Mandir a voluntary organization, asked for a water survey of thirty-five villages in the Udaipur District of Rajasthan in conjunction with a general development plan for the area. This resulted in surveying sixty new well sites for tribal families.

Meanwhile SWRC also stepped up its research and advisory and drilling services for individual farmers, industries, and institutions on a no-cost no-profit basis. By 1977 some 150 wells had been drilled.

It should be noted that these extensive activities relating to water supply were handled by a relatively small SWRC team--generally including a geologist, geophysicist, cartographer, and a small number of assistants--supplemented, from time to time, however, by qualified specialists borrowed from government agencies or other organizations.

In principle, most such survey and research work normally falls within the province of government, especially since government participation is usually essential to mobilizing the large development investments needed to follow up such surveys with positive action. As a practical matter, however, the government's capacity to conduct such surveys and research is so limited and strained that many areas go unattended for years. Thus the availability of SWRC's expertise to supplement the work of government was welcomed by government and farmers alike and undoubtedly set the stage for earlier and more rapid agricultural development in the Silora area and certain other areas than would otherwise have been possible.

EXPANSION OF AGRICULTURAL EXTENSION

In the second phase the rather meager agricultural extension efforts of SWRC's initial phase were expanded somewhat, but they still remained relatively modest in scope. The agricultural team in this later period generally consisted of one or two agricultural graduates and two local assistants. By working closely with the state government's agricultural services, however, and by tying in with the water development team and the community health program, the effectiveness of their efforts was multiplied.

The major effort of the agricultural program centered on demonstration and training activities at the SWRC campus. In cooperation with the District Agricultural Officer and the Block Development Officer, demonstration plots were sown with new varieties of wheat, vegetables, and other crops; experiments were conducted with kharif and rabi crops with the needs of small farmers in mind; and extension education camps were conducted for farmers from surrounding villages (generally with fifty to a hundred participants). A start was also made on an outreach program, centering on the distribution of seeds and other inputs. By 1977 the outreach program included nineteen villages.

Interestingly, the VHWs came to play a useful role in this agricultural outreach effort. Being young farmers themselves, they provided an important communication link between the farmers of their village and the campus. When they came for their regular Sunday meetings with the health specialists, they also brought questions for the agricultural specialist as well as orders from their neighbors for new seeds, fertilizer, and pesticides and carted home these inputs for local distribution. SWRC purchased the supplies at wholesale from the government, sold them at cost, and the local health worker earned one rupee per bag as his delivery commission.

The health workers were not passive messenger boys in this liaison arrangement. They made complaints when seeds were faulty, asked for soybeans to experiment with, and in general made it clear that they and the farmers they represented were informed consumers who knew what they wanted, and not newcomers to agricultural innovation.

TACKLING THE PROBLEMS OF MARGINAL FARMERS

It is generally the larger and more prosperous farmers, who have cash reserves and a good credit rating and who can afford to take reasonable risks, that benefit most from water development schemes and from new technologies disseminated by agricultural extension services. The marginal farmers, who usually far outnumber the more prosperous ones, have to scratch hard for the sheer survival of their families and are generally bypassed by the benefits of new development schemes and agricultural support services. In fact there are numerous instances where their position has actually been worsened by new development schemes and the introduction of new technologies, such as high-yielding varieties of rice and wheat.

This universal problem in the developing world had been much on the mind of the SWRC team from the outset, but it had been difficult to find a good handle to take hold of to do something really substantial about it. A promising opening came in early 1975 when an SWRC proposal to conduct a socio-economic feasibility study for development of small and marginal farmers and agricultural laborers in the Jawaja Block of Ajmer District in Rajasthan was approved for funding by the Indian Ministry of Agriculture under the Drought Prone Area Program. By May 1975 a small subcenter of SWRC was established in Jawaja (currently headed by an economist who joined SWRC-Tilonia in its early stage and thus had acquired a familiarity with problems of poverty in a dry rural area). At about the same time SWRC was commissioned by the Agricultural Refinance Corporation Scheme to conduct a detailed water survey in part of Jawaja Block.

The ecological and socioeconomic conditions of the Jawaja Block are fully as severe as those in Silora. Only half the land is arable, the other half being largely barren. The average annual rainfall is low; only one-quarter of the cultivated land is irrigated by pumps or tanks, and an exceptionally dry year can have a disastrous impact on thousands of families. The most vulnerable are those with little or no land, and they are the majority. More than half the farm families have less than one acre--not enough to meet their own minimum food requirements, much less to yield a surplus for the market. The highest per capita income is Rs. 314 in Pakharia in the Deluara Circle; the lowest is Rs. 30 in the poorest circle of villagers in Barakhera. Most of the villages have a high level of debt to money-lenders and a very low record of institutional borrowing at lower interest rates.

The SWRC feasibility study brought these miserable conditions into clear perspective, analyzed the natural resources of the area, and identified potential measures for tapping available resources and generating additional income for marginal farmers. One of the key conclusions was that "it may not be optimal to attack the problems of poverty [in this area] by trying to raise the income from agriculture." It was felt that, given the land and water conditions, programs to promote animal husbandry would be more effective, coupled with efforts to promote job and income creating small rural industries. Thus the report (in April 1977) proposed package programs for pasture development, animal husbandry, veterinary services, the introduction of new technologies such as improved breeds of sheep, cattle, and goats, artificial insemination, and improved fodder varieties, as well as marketing facilities for animals and animal products. Supplementary measures were also proposed to encourage small-scale industries and crafts and to improve community health and education.

At the cut-off date of this case study the SWRC team in Jawaja,encouraged by the favorable reception its feasibility report received, were engaged in spelling out detailed plans for implementing this proposed package-approach to improving the conditions and prospects of marginal farmers and landless families. It remains to be seen, of course, how much solid support will be forthcoming and how feasible the plan actually proves to be, but at least it appears to hold greater promise than the conventional agricultural extension approach.

As the Jawaja feasibility study was coming to a head, a new specialist, trained in agriculture, agricultural engineering and management, joined SWRC-Tilonia and began work on a similar plan for attacking the problems of marginal farmers in Silora. This has since been submitted for funding to the Indian government's program of "Peoples'Action for Development."

In rough outline, this Silora plan is geared to a government program for distributing land (generally rather poor land) to landless laborers, Harijans, and other scheduled castes, and proposes a package of measures for improving the productivity of this land. The package includes such measures as leveling and reclaiming the land; tapping available ground water supplies; introducing high-yielding varieties of seeds, fertilizer, and insecticides (where appropriate); crop rotation; provision of low interest loans; and strengthening the marketing system. The educational activities include short term training of farmers at the Agricultural University in Udaipur, farmer training camps for rabi and kharif crops, and the involvement of students from the Agricultural University in working with the farmers through summer jobs. The project would identify 200 marginal farmers each year and work with them intensively for five years with a package plan on an experimental basis.

A COMMENTARY

The Water Development and Research Program clearly did much to get the SWRC off to a strong start. Its results were respected by technicians in and outside government; it represented something tangible and functional that farmers and others could appreciate; it was directly addressed to what everyone knew was a crucial problem for the area's development; it led rather quickly to follow-up actions by government electrification, water development and credit agencies; and it was an effective means for educating SWRC itself about the basic conditions of the area and its people.

Standing alone, however, the water program could probably have had only a limited impact on the social and economic development of the whole area, parti-

cularly for the poorest section of the population. It had to be followed up with complementary actions pertaining to agriculture and ultimately with a well-designed "package program," specifically tailored to the needs and circumstances of marginal farmers and the landless. This became increasingly apparent to SWRC, which at the present writing is just beginning to cut its teeth on this more comprehensive approach to the small subsistence farmer. This approach will undoubtedly involve a good deal of "learning by doing," improvisation, trial by error, persistence, patience, and indomitable optimism.

This challenge of how to help the small and indigent farmers is not unique to Rajasthan, however. It confronts all of India and practically all other developing countries. It has lately been commanding the attention of major international and bilateral assistance agencies, and no one claims to have the answers. The experiences of the SWRC in the next few years, therefore, should prove of interest--and perhaps of significant help--to many others who are seeking solutions to the same basic problem.

It is already clear from SWRC's experiences to date, if it was not already clear from the experiences of many others, that conventional agricultural extension techniques that concentrate on "selling" farmers "new technologies" are by no means a sufficient answer, especially for the small and poor farmer. These techniques at their best can only be one useful part of a broader combination of measures needed to transform the lives of the poorest of the rural poor.

CHAPTER 5

THE RURAL INDUSTRIES PROGRAM

It will be recalled that the three initial priority areas envisaged by the founders of SWRC were water development, health, and education. Soon after the Centre got into operation, however, and as evidence of its flexible and pragmatic approach, a fourth priority activity emerged--namely, the revitalization of traditional crafts and rural industries. This proved to be a practical way to generate new employment and income (albeit on only a modest scale at first) and to focus on improving the lot of specific disadvantaged groups, including especially their female members.

The socioeconomic survey, conducted by SWRC under the sponsorship of the Khadi and Village Industries Board in 1974, called sharp attention to the problems of economic survival among traditional craftsmen and artisans. The weavers, the leather workers, the block printers, including many women, had learned their traditional caste occupations and crafts from childhood. But because of unfavorable market conditions, lack of funds and raw materials, and in some cases in order to escape the low status and stigma attached to these caste occupations, many had given up their occupations either to go to towns and cities for new jobs, or to work in their villages as agricultural laborers or construction workers.

As these circumstances came into clearer focus, SWRC decided to initiate some special efforts to keep these traditional crafts alive in the hope of fostering increased employment and income in the lower-caste groups traditionally associated with them.

THE WOMEN'S CRAFT PROGRAM

The women's program, started in January 1974, was initially a social education program that also explored possibilities for adding economic incentives through crafts and tailoring. The village postman in Tilonia, who turned out to have a diploma in tailoring, became involved in the tailoring and craft classes that were held in Tilonia in the evenings and that also included social education and literacy lessons. Similar centers were later established in the villages of Phaloda and Buharu. The Phaloda center was eventually shifted to Chundri, and a new center was established at Harmara.

During its second and third years the craft program in Tilonia turned into a daytime production center, while the social education and literacy aspects continued to function in the evenings. The Chamar women who had earlier worked as unskilled laborers on construction sites or had looked for

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occasional famine relief work were attracted to this program while the upper caste Jat, Rajput, or Gujar women stayed away. The Chamar women found this new work less strenuous and more interesting, and the economic as well as social benefits seemed to be quite attractive.

By early 1977 about 200 women were enrolled in the Tilonia program, though only a minority of these attended regularly. On the typical day about sixty women came to the center to produce clothing, craft items, and block printed textiles. They were paid on a piecework basis and their daily earnings generally ranged from 3 to 8 rupees, or up · Rs. 180 (about US$20) in a month--a quite significant sum for disadvantaged women in these circumstances.

The group included all ages, from teenage girls to grandmothers. It was not uncommon to find three generations of the same family participating in the production program. The teenagers generally had a little schooling and were eager and quick to learn new skills to prepare themselves for homemaking and to earn some cash income. Most were already married but still living with their mothers until the time came for moving in with their husbands' families.

More often than not, well-intentioned craft programs of this sort have soon foundered for lack of an effective marketing mechanism. The local demand is soon saturated and there is no workable link to distant urban markets and export markets. SWRC sought to avoid this fate by taking a number of steps to break into such markets as those of Delhi and Bombay. In October 1975 an exhibition of Tilonia crafts was held at the Triveni Kala Sangam in Delhi, and another was held in May 1977 at an art gallery in Bombay. Contacts were made with the Handicrafts and Handlooms Export Corporation, the All India Handicrafters Board, the Central Cottage Industries Emporium, the Khadi and Village Industries Board, and a British agency located in the U.K. In addition, a number of small buyers and city shops became interested. A female free-lancer became associated with SWRC and began to build links between the crafts center and the city markets on a commission basis. Another female consultant from Delhi offered her services to SWRC to develop new designs likely to attract city buyers.

Some of the more enterprising women wanted to strike off on their own (though still using SWRC's marketing services), but to do so they required some working capital to purchase raw materials and equipment (e.g., a sewing machine). SWRC arranged to get loans of Rs. 500 each for eighteen such women.The loans were provided by the new Tilonia Branch of the Union Bank of India (located on the SWRC campus) under the DIR (Differential Interest Rate) Scheme especially designed to assist small farmers and artisans and illiterate women entrepreneurs. The loans were to be repaid in regular installments deducted from the women's earnings, while SWRC paid the interest in their behalf.

To make it easier for women to spend their days at the production center SWRC established a balwadi preschool) and later an infant creche where their children would be cared for and given a nutritious meal. In addition, the health dispensary, right next door, undertook to provide maternal and child care services, including immunization for the children and family planning and nutritional education for the mothers. The production program also developed a stronger social education dimension. As the illiterate village women began to see the practical economic benefits of the program and to confront the intricacies of bank loans and marketing, they developed a greater interest in literacy and social education.

In contrast to the Tilonia center the craft centers at Buharu and Chundri attracted a high proportion of higher caste women (though from relatively poor families) and have continued to function more as social education and craft training classes than as actual production centers.

Yet another variant is represented by the new crafts and social education center established in Harmara in January 1977. It has attracted women from the Reger caste who inherited unique skills of embroidering on leather. At the center they soon began to branch out into embroidering on cotton and woolen fabrics. This center will probably develop a strong production orientation similar to Tilonia's.

THE LEATHER WORKS PROGRAM

Many of the villages in the SWFC area include members of the Chamar or Reger lower castes that have traditionally been involved in tanning and leather work. Although many have given up their caste occupation, others continue to spend up to half the year catering to the local demand for leather products and the rest of their time seeking construction work and other unskilled employment.

In spite of its tradition of colorful and decorative leather items with embroidery, this area of Rajasthan has not developed a system of effectively utilizing the hides of dead animals in the locality. The tanners generally obtain the raw hides from Nasirabad in Ajmer District or at wholesale rates from Kanpur in Uttar Pradesh. As an alternative they often buy processed leather, which proves to be too expensive. The Khadi and Village Industries Board is equipped to offer some help in these matters, but few Chamars and Regers have been aware of these services.

Exploring possibilities of solving some of these problems, the SWRC gathered a group of leather workers from nearby communities and hired their services for making leather goods which were presented at the crafts exhibition in Delhi in October 1975. It was soon realized, however, that although the leather items looked attractive and could be sold fairly easily, the leather was not processed properly and was prone to develop bacterial infection and mould. To find an answer to this problem, the SWRC team contacted the Central Leather Research Institute in Rajkot in Gujarat State, which was known to have evolved an effective method of curing and tanning leather in a less expensive and time-consuming fashion.

With a view to bringing this modern technique to the Rajasthan villages, a representative of the Leather Research Institute was invited to SWRC. The chemical engineer at SWRC organized a demonstration-cum-training camp for local tanners in Harmara in collaboration with the researcher from the Leather Research Institute. About forty tanners from Harmara, Relavata, and Buharu attended the two-week camp in September 1976. They were impressed with the new technology and accepted it with enthusiasm. They also came to appreciate the economic advantages of improving the quality of locally available hides through proper methods of handling dead animals and of sharing community pits for tanning and processing as against individual pits.

To follow up on this initial effort, SWRC arranged to get bank loans of Rs. 2,000 each for seven Regers who volunteered to join a new scheme. As part of this scheme, SWRC undertook to obtain the chemicals and other raw materials from the manufacturers and hand them over to the tanners at actual costs. The tanners now use the new technique for processing the leather and also make leather goods for which they get paid by the center Portions of their earnings are used to repay the bank loans,and the leather goods are sold along with the women's craft items in the urban markets. Five of the Regers participating in this scheme work on the campus where their work is supervised by the SWRC team, and they also get help on new designs and patterns. The other two Regers prefer to work in their own villages and visit the campus according to their convenience.

As this small-scale experiment began to give results, a project proposal was prepared to set up a tannery and footwear unit in Harmara, 3 km. northwest of Tilonia. The proposal has been approved for funding by a well known industrial house, Mahindra and Mahindra, in Bombay. The Regers collected a community contribution of Rs. 1,000 and secured the land in Harmara for the set-up. The project will get into operation when it has met all official requirements and a functional set-up with a building, equipment, and tools has been established.

The plan visualizes a cooperative management of the tannery and footwear unit and includes provisions for in-service training of local people in technology, supervision, stock-keeping, marketing, institutional credit, collaboration with outside agencies, administration, and management. In the early stages, many of these elements will be closely supervised and managed by the SWRC team, but the center hopes to hand it over to local people over a period of about ten years.

Regers from other villages have shown considerable interest in the new method of tanning. The SWRC is planning to conduct similar demonstration-cum-training camps in the scientific methods of tanning in far-flung villages like Relavata, Jajota, and Bandrsindri because they have a large percentage of Reger population. This time the training camps will be organized by the SWRC without outside technical help, using instead some of the previously trained local tanners as instructors.

It is interesting to note how SWRC's health program and communications section tied in with the new rural industries program. The women in the Reger community in Harmara had already joined the crafts center in their village. The health team moved in soon after the initial contact with Regers, only to realize that the community had a fairly large number of positive cases of T.B. The health team arranged for their treatment and undertook to educate the families in prevention and treatment of T.B. The Communication Unit of SWRC made film-strips on the tanning technique during the initial training camp and on prevention and treatment of T.B. These film-strips were then used in connection with the community education and training activities.

PROGRAMS FOR OTHER ARTISANS

Similar programs have been organized or are being worked out for other artisans in the block. The "Own Your Own Loom Scheme" has been devised for the weavers who are otherwise employed by the Banias in their handloom factories. With loans from the bank under the DIR scheme or from the Rajas-

than Handloom Project Development Board, some nine weavers have resigned from their factories and set up their own looms. Similar arrangements have been worked out with the traditional Balais, the weavers who work on pit looms.

Block printing has been a well-known folk art in Rajasthan, and the town of Kishangarh and the village Rupanagar are especially well known for their special block prints and designs. These two communities were approached by SWRC but rejected the center's assistance. Contacts were then made with another printers' community in the town of Bagru near Jaipur. The SWRC worked with these printers in designing special print patterns in black and beige, or red and beige color combinations. This particular type of cloth with these prints has become quite popular and is beginning to be known as the "Tilonia fabric."

AN EFFORT TO HELP OUT-OF-SCHOOL YOUTH

In response to a proposal submitted to the Ministry of Education to set up a work center program for rural artisans in the villages around Tilonia, approval was granted in March 1977 for a training component for traditional skills like weaving, cloth block printing, and leather work. The work center has succeeded in attracting quite a number of trainees, especially young women belonging to scheduled castes. In the first half of 1977 the program managed to train about fifty local people in different trades. The products made by the trainees are marketed by the SWRC.

The integrated aspect of this work program may be seen as a distinct innovation: the cloth produced by the weavers is printed in the printing unit and then made into garments in the tailoring section and subsequently marketed.

After the trainees have been sufficiently trained, the SWRC takes responsibility for setting them on their own feet by arranging loans for them from the Union Bank of India.

Workers Cooperatives: The SWRC is on the verge of forming two cooperative societies for the persons who get trained through the work center program. One will be a women's cooperative for weaving, printing, and garment making. The other will be for leather workers: a rural tannery unit and production unit. Previous cooperatives in this part of the country had not been successful, largely because of shortages of materials and poor management. However, the SWRC believes that cooperatives are the best way of organizing the people and bringing them together to get tangible results. Thus the SWRC will be keeping a paternal eye on these two new cooperatives to insure that they get off to a sound start. Once the members get the hang of it, the SWRC will withdraw from the society.

A COMMENTARY

There is nothing new about voluntary agencies or governments attempting to create employment and income opportunities for disadvantaged rural people by providing training in cottage industries, various crafts, or more modern skills. The record of success for such efforts, however, has generally been disappointing, if not downright dismal. The usual reasons are, first, that the main focus is often mainly on training to give people new skills, but with too little attention to the measures required to help them apply their new skills once they have acquired them; and second, that even if the training leads to actual production, there is no effective and economically viable marketing system for disposing of the output at profitable prices.

What is interesting and different about the SWRC's initiatives in this field is, first, that they focused on already existing traditional skills and products rather than on introducing "modern" and unfamiliar skills and products (in short, they tried to exploit the existing strengths of the area); second, they recognized that "training" and the possession of skills is not enough as these are but components of a total production and marketing "system" that must also include a flow of essential raw materials, credit, and other inputs, and above all the means of disposing of "products" on an assured and profitable basis; and third, that people cannot be narrowly viewed like machines, simply as "producers," because to be good producers they require complementary "social" development supports such as basic education, assistance in caring for their children, and improvement in health and other basic requisites for improving the quality of life.

It remains to be seen how successful these various initiatives in small-scale rural industrial development will prove to be in creating new employment and income for the poorest sector. Realistically, one should allow for some failures along with the successes. But, come what may, even at this early stage the SWRC's initiatives in this field have helped to verify the initial premise on which the SWRC was founded--namely, that social change must be sparked by economic change, and this requires opening access to new opportunities for economic advancement on the part of those confined to the poorest economic status.

Significant also is the fact that these "production oriented" activities contributed the most of any programs toward making the SWRC a self-supporting enterprise. SWRC's total expenditure in 1976 on the rural industries and social education and crafts programs combined was Rs. 170,049, of which 75.5 percent went for raw materials, only 6.5 percent for salaries, and 18 percent for miscellaneous administrative costs. Against these expenditures, the programs returned revenues to the SWRC totaling Rs. 120,408--equivalent to 70 percent of total expenditures. As "marketing agent" for the various craft projects, the SWRC earned a 10 percent margin--not quite sufficient to defray its own overhead and administrative costs involved, yet a major contribution to them. SWRC officials believe that market conditions will not tolerate a higher margin; hence they are now endeavoring to achieve economies in these overhead and administrative costs.

Meanwhile, as limited as the scale of these "production" programs is, a significant number of the poorest people in the area have already begun to improve their economic position, and their prospects for further improvement seem encouraging.

Here again it is worth noting that the SWRC did not "go it alone" in the rural industries program. It played a critical entrepreneurial, catalytic, and coordinating role, but such success as there has been thus far is attributable in no small measure to the way SWRC has drawn upon existing government services and other institutions and individual experts to provide new technologies, help in training, improved product designs, credit supplies, and marketing outlets. It is also noteworthy that the SWRC's health team and communications specialist also contributed to the effort.

CHAPTER 6

THE EDUCATION PROGRAM

SWRC's Education Program is quite separate from the training and educational components that have been built into the health, agriculture, and rural industries programs by the "noneducators" responsible for these "sectoral" programs with occasional help on visual aids (mainly film strips) from the SWRC communication specialist.

The Education Program has concentrated on separate "educational" projects moulded in the image of formal schooling and of traditional interest to ministries of education. Its initial projects followed highly conventional patterns (adult literacy classes, social education classes for women, and a balwadi for preschool children), but its subsequent projects became more innovative, in part because of the encouragement and support of innovatively-minded government education officials in Rajasthan and Delhi who saw SWRC's project area as a promising laboratory for trying out fresh ideas.

A FRESH START ON LITERACY

Some time after the early collapse of the "100 percent literacy" campaign, a less ambitious but perhaps more realistic approach to literacy training began to emerge--more by accident than design. The tailoring instructor at the Tilonia crafts production center and the village health workers in Panwa and Kakniawas found a growing interest in literacy among their women "clients" and decided to set up their own modest literacy programs to cater to this demand.

Significantly, these "classes" are not held in schools, but in the front yards of houses, behind the mud walls, in the most natural surroundings of the village--the buffalo in one corner, a few men relaxing or dozing in another corner after the day's work, and children of all ages walking in and out. Sitting together in the center, a cluster of women of all generations strive to master the magic letters, words, and number symbols. There is very little added to this settting in the way of audio-visual aids or instructional materials, and the teaching methods are crude. But the new element in the situation is conspicuous motivation. As the learners with their slates compete to show the visitors how they can write their own names and numbers up to 100, it becomes evident that literacy has come to have greater meaning for the women "producers" at the Tilonia craft center since they started earning money, taking bank loans, and becoming exposed to marketing mechanisms, prices, quality standards, and new designs. Letters and numbers now have a functional utility and practical value for these women and are seen as a doorway to a more modern way of life. A similar phenomenon has been taking place among other women who had experienced at first hand the benefits of participating in a "modern" maternal and child care and community health program.

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As more villagers whose lives are changing begin to ask for literacy training, a grant may be forthcoming from the Ministry of Education to support an expansion of SWRC's fresh start on literacy.

SERVICES TO WORKING MOTHERS AND THEIR CHILDREN

During the second phase of SWRC's development, two more balwadis were established in the villages of Bhojiawas and Tyond, and a new creche was added to the balwadi/craft center complex on the Tilonia campus. Interestingly, these child care centers led the way toward integrating the isolated education program with other SWRC programs. With the cooperation of the health program, the balwadi and creche children all receive a nutritious daily meal, regular health checkups, and immunizations. And by linking the day care centers to the craft production program the working mothers can have their young children well cared for while they are earning income. Thus, through these program linkages, both the children and mothers benefit.

A BROADER APPROACH TO SOCIAL EDUCATION FOR WOMEN

The original social education class for women at the Tilonia campus turned into a crafts production center in the daytime (fitting the strong interests and practical needs of the poorer women), with the social education remaining available through evening classes for those who wished to participate. It was still, however, a separate and relatively conventional type of program with the ever-present stress on literacy. Meanwhile new crafts and social education classes were created in two other villages, one of which also began to evolve into a crafts production center.

More recently SWRC has embarked on a quite different and probably more promising approach to social education. With the support of the Department of Social Welfare of the Ministry of Education and Social Welfare, SWRC in April 1977 organized an experimental 21-day "training camp" in social education for forty women in Harmara in which staff members from other SWRC programs participated as resource persons. It covered discussions on a wide variety of topics directly tied to improving rural family life, such as health, nutrition, growing food, child care, hygiene and sanitation, family planning, cottage industry, self-employment cooperatives, appropriate technology, and schools. This trial venture, representing another step toward integrating the Education Program with other programs and with the basic needs of the villagers, won a sufficiently warm response to encourage SWRC to schedule similar social education camps in four other villages during 1977-78.

A BOLD EFFORT TO TRANSFORM PRIMARY EDUCATION

A study conducted by the SWRC Education Section in 1974, in collaboration with the National Centre for Educational Research and Training (NCERT) in the national Ministry of Education, examined the reasons for poor attendance and high dropout rates in the local primary schools. The findings indicated that the children of primary school age in poor rural families had a number of household and farm duties that made it difficult for them to spare time for schooling; that the school curriculum did not relate sufficiently to the children's rural life and special needs, nor prepare them for

urban jobs; and that most of the teachers did not belong to the villages in which they taught and hence they had little communication with the parents and the rest of the community.

In an effort to find practical solutions to these and related problems, a three-year experimental action research program was devised. Its basic objective was to test out a fresh approach to primary education that would serve the basic learning needs, interests, and life styles of all village children in the area from age six to eleven, including previous dropouts. With funding and technical assistance from NCERT, the experiment was launched in June 1975 in three village schools (in Tilonia, Buharu, and Phaloda) that were turned over by the Rajasthan authorities for SWRC to manage (a quite unusual trust).

The experiment, now in its third year, includes several strikingly unconventional features that were bound to draw fire from some of the parents and more traditional educationists but by the same token to win the applause of forward-looking educators.

First, the regular teachers in the experimental schools were reassigned to other areas (in the belief that they would find it difficult to adapt to new ways). To replace them, six young local secondary school graduates with no previous teacher training were recruited: two farmers, two priests, an unemployed youth, and a widow. They were given relatively brief initial training at the SWRC campus, followed by weekly workshops throughout the school year with the SWRC staff and various visiting experts. During these workshops there were free and open discussion of problems encountered in the classroom, critical evaluation of how the program was going, and introduction of useful supplementary ideas and information. Different members of the SWRC staff, plus education officials from Rajasthan and Delhi as well as staff members of the Regional College of Education in Ajmer, participated in the initial training and in later workshops and school visits. The spirit was one of guidance, assistance, encouragement, and teamwork, not of "supervision" in the old sense.

Second, the school time schedule was adapted to the convenience of the learners; the younger ones and others who were free could attend the morning shift (8 a.m. to noon), while those with daytime duties could come in the evening from 7 p.m. to 10 p.m. (This was especially important for previous dropouts, most of whom had acquired substantial daytime obligations.)

Third, although the basic learning objectives of the official syllabus were retained--especially language skills and numeracy--substantial changes were made in the curriculum and in educational methods with a view to providing the children with more relevant, interesting, and useful learning experiences relating to their own social, economic, and ecological environment and to such matters as agriculture, animal husbandry, crafts, and rural industry. Each school--viewed as a "learning center"--had its own garden and animals, and the village itself was occasionally used as a "classroom." Special teaching materials and learning aids were developed, and the old "rote memory" examinations were changed. Traditional didactic methods were replaced by the "project method," group discussion, observation tours, and other more open and flexible pedagogical methods.

Provision was made at the outset for continuing self-evaluation and for periodic checks on student participation and progress (with the technical help of the Regional College of Education). By the end of the second year (1976-77) the proportion of six- to eleven-year-old children in the three villages attending either the experimental schools or regular schools had risen substantially and the rate of dropouts had declined, although 100 percent participation was still a good way off. At that point an evaluation was conducted by the Regional College of Education of the comparative scholastic achievement of children in the three experimental schools and their counterparts in two traditional government schools in the area. Significantly, the results, summarized in Table 4, showed somewhat higher average mean scores for the experimental school children in three out of four skill areas, including reading comprehension and arithmetic.

TABLE 4

Comparative Mean Achievement Scores of Children in Three Experimental Schools and Two Regular Schools

Name of School	Arithmetic	Reading Comprehension	Listening Comprehension Poem	Listening Comprehension Story	Environmental Studies
Class IV					
Experimental Schools	20.75	51.25	49.00	78.50	33.00
Panchayat Samiti School Harmara	19.75	39.83	38.83	81.67	28.88
Government School, Tilonia	22.94	39.50	23.21	50.42	28.35
Class V					
Experimental Schools	14.33	72.44	57.67	95.11	48.33
Panchayat Samiti School Harmara	7.95	67.04	38.10	112.71	26.57
Government School, Tilonia	7.28	50.21	44.42	106.28	30.08

Source: SWRC, August 1977.

The community response to the experiment varied from "poor" or "skeptical" to "positive" and "encouraging." While the block-level government officials were cooperative, the responses from the Panchayat (the village council) and its head, the Sarpanch, were less favorable in Tilonia and Buharu. This reaction was explained by the SWRC team as a conflict between the power structure and the parents because the project emphasized approaching parents directly rather than through the Panchayat. The response was more positive among the lower castes and among dropouts than among the upper castes such as the Jats and Gujars, but in general the response was more encouraging toward the end of the first year. The villagers from Phaloda,

for example, offered free labor for digging wells for the school. Some children from Tilonia, however, were shifted by their parents to the regular school to avoid further participation in the experiment.

The experimental schools also encountered some "housekeeping" difficulties. The kitchen garden program ran into problems of watering plants when the schools were closed and of getting other routine chores done. It was also difficult to coordinate the school schedule with dairy work, and the animal husbandry program encountered both labor and cost problems.

All in all, however, the experiment in the first two years seems to have gone encouragingly well, with one year still to run. The big question remains as to what would happen then.

AN INVENTORY OF LOCAL EDUCATIONAL RESOURCES

With the encouragement and assistance of the Directorate of Nonformal Education in the Ministry of Education in Delhi, SWRC's education staff undertook in 1975 an unusual inventory of potential educational resources in the Silora area, including a rating of how much they were actually being used.

The concept of education employed in this survey was far broader than conventional schooling or its nonformal equivalent. The investigators had in view all kinds of local basic learning needs, including not only "the three-Rs" but needs that cut across such fields as health, nutrition, environment, agriculture, household improvement, occupational skill training, and cultural activities.

Considerable effort was devoted to developing a meaningful typology for classifying various types of "educational resources"--institutional and noninstitutional, human, physical, and financial--and also a methodology for rating their utilization.

The final report, issued in March 1977, identified an astonishing variety of potential educational resources in the area, including numerous institutions (e.g., schools, Panchayat Samatis,Gram Panchayats, village cooperatives, youth clubs, Mahila Mandals, and Jati Sudhar Samatis); numerous local residents with special talents and skills; and a wide range of facilities, materials, equipment, aids, and situations that could be harnessed for educational purposes.[1] The report also found, however, that most of these resources were either entirely unused or were grossly underused for educational purposes--including the schools and teachers themselves. (The fact that 90 percent of the teachers were not residents of the villages in which they taught was seen as a major obstacle to their playing a larger educational role in the community.)

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[1]Others who may be interested in conducting such an inventory will find the SWRC report useful: Study of the Unused and Underutilized Educational Resources of Silora Block, Ajmer District, Rajasthan (India); SWRC, March 1977.

The researchers concluded that this underutilization was not for lack of interest or goodwill--"it was amply evident that this was available in plenty." Rather, they cited two other main reasons. The first was the "self-centered nature" of the limited membership of various local institutions: "No sincere effort could be noticed on their part to reach out to the community nor to involve the latter in their area of operation." The second was the "paucity of agencies, programmes and people actively and creatively engaged in the task of organizing the tapping [of] the potential local resources for use in educational programmes." Although the report makes no direct reference to SWRC in this connection, it would appear that undertaking this entrepreneurial role could be a challenging and useful function for SWRC's Education Section in the years ahead.

COMMENTARY

Ironically, the educational activities of SWRC, taken as a whole, reflect two very different and somewhat conflicting views of education.

The first is the traditional "educator's view" that equates education with schooling (or its nonformal equivalent) and sees it as a separate "sector" with its own distinct programs and identity. This in essence is the view underlying SWRC's Education Program. The second is the "rural development view" that equates education much more broadly with learning, regardless of how or where the learning occurs, and that sees education as an indispensible ingredient of every development activity whose success requires changes in human behavior based on new understanding, knowledge, and skills, and on altered attitudes. This view is reflected in the educational components of SWRC's health, agriculture, and rural industry programs reviewed in previous chapters.

The experience of SWRC's Education Program, especially in its early years confirms once again that separate rural education projects moulded in the image of formal schooling run a high risk of becoming divorced from the real human needs, interests, and motivations of the intended clientele, from other development activities, and hence from the mainstream of rural development in the particular area.

The failure of the "100 percent literacy" program is a particularly illuminating case in point, but the lessons it teaches apply also to rural adult education generally. The villagers did not reject literacy; what they rejected was the kind of literacy they were being offered--which seemed to have little meaning for their day-to-day life--and the way this literacy was being taught. Their patience and motivation soon ran thin when they discovered that mastering literacy was going to be much more difficult and time-consuming than they had supposed. Their intuitive cost-benefit calculus told them that the practical payoff was not worth the time and energy they would have to divert from other activities.

The problem was not simply that the reading materials were uninteresting and the teaching for the most part uninspiring. An equally important cause of their disenchantment was that rural adults who have not experienced substantial formal schooling are ill-at-ease and even resentful at being taught like children

in a classroom setting. Moreover, they have great difficulty absorbing abstract symbols, ideas, and information unless they are directly and clearly related to the realities of their daily life and to their immediate concerns. In brief, the failure of the literacy program to demonstrate its relevance and to inspire sustained interest and motivation on the part of the learners proved its undoing.

It clearly takes a powerful motivation--such as the craft production women in their new outdoor literacy classes are now displaying--to overcome these psychological obstacles. It is significant that these women are making progress even though the available learning materials are grossly inadequate and their teacher is untrained. Undoubtedly they would progress faster if these deficiencies were remedied, but without the strong motivation to start with, such pedagogical improvements would probably be in vain.

The increasing steps being taken to link the Education Program with other SWRC programs--as, for example, through the participation of health and agricultural staff members in the new social education camps for women, in training the experimental school teachers, and in the elementary schools themselves--can do much to increase the relevance and interest of these education activities for local people and to bring the Education Program into the mainstream of SWRC's overall rural development effort. One suspects, however, that there is still a long way to go in this direction, particularly in terms of removing the didactic teaching methods and other trappings of formal schooling from all out-of-school educational activities, and in terms of fitting the content to the expressed interests, needs, and motivation of each particular clientele.

In the area of formal education itself, SWRC's bold experiment in reforming rural elementary schooling clearly has important implications, not only for the Silora area but for other parts of India and other developing countries. The important issue, however, is whether the experiment will be sustained long enough to take permanent root and, if so, how its useful lessons can be spread to other schools within and well beyond the project area. Without a strong and determined effort along these lines this promising experiment could easily suffer the fate of so many "pilot projects" that have disappeared without a trace soon after the special funds and enthusiasm have run out.

A similar question is what if any follow-up there will be to SWRC's unique inventory of underutilized educational resources in the Silora area. Will it turn out to have been simply an interesting research exercise that gets shelved and forgotten? Or will it be seized upon as an operational springboard for a new SWRC effort to help organize these available resources to serve a great variety of basic learning needs in the area? If it is the latter, as one hopes, this could drastically reorient SWRC's Education Program, set it on a highly innovative course, and bring about a synthesis of the two divided worlds of education reflected in SWRC's previous activities.

CHAPTER 7

CONCLUSIONS AND LESSONS

The Social Work and Research Centre's first five years provide a fascinating story of an experiment in rural development at the grass roots level--a story packed with human drama, diverse initiatives, a mixture of successes, disappointments, and suspense, and some useful lessons about integration, community participation, educational strategy, and future possibilities for voluntary organizations.

It would be premature to attempt a definitive evaluation of SWRC at this time because its story is still unfolding and the full consequences of its actions to date are not yet discernible. This final chapter therefore presents only an interim assessment of SWRC's progress toward its objectives and draws attention to a number of pertinent lessons suggested by its experiences to date.

AN INTERIM ASSESSMENT

We noted earlier in this report that an outside observer is at first bewildered by the motley assortment of program activities initiated by SWRC and the wide diversity of clienteles they seek to serve. Moving back over the five-year period through this maze of program directions, however, and taking a second look at the framework of objectives and guiding principles originally set forth by SWRC's founders, one begins to see more clearly that this framework has in fact given shape and coherence to what might otherwise appear to be a potpourri of miscellaneous activities. As a general rule, whatever works within this framework stays on, while ill-fitting activities are weeded out.

The Record of Progress Toward SWRC's Initial Objectives

One useful way to assess SWRC's progress is to check its actual actions against the following list of its initial objectives:

(1) Objective: *To create a rural institutional base for providing technical services to the 80,000 rural people living in the Silora Project area.*

Action: The SWRC "campus" at Tilonia has become well established as an operational base and is a beehive of activity.

(2) Objective: *To give initial priority to water development, health, and education.*

Action: SWRC has launched substantial program activities in these three fields and in addition has initiated activities in agriculture, crafts production, and rural industry.

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(3) Objective: *To work in close partnership with the local people, assisting them to improve their conditions through community-based self-help actions.*

Action: Winning the trust of the local people and stimulating their participation in community-based self-improvement programs proved to be a slower and more difficult process than anticipated. However, some encouraging though limited breakthroughs have been made (particularly in health, agriculture, and rural industry) that bode well for the future.

(4) Objective: *To "professionalize rural development" by combining the talents and energies of young urban specialists (university graduates) with those of local "professionals" and "paraprofessionals" (to be trained by SWRC) in a three-tier team.*

Action: A "professional subculture" has been created, centering at the SWRC campus, that effectively meshes the efforts of urban specialists and local professionals and field workers in a spirit of democratic partnership and serious professionalism. There is need, however, to broaden and strengthen the local membership on the lower tiers of the team structure.

(5) Objective: *To give initial emphasis to activities that can yield economic benefits for the people in order to win their confidence and to create a favorable climate for social change.*

Action: The water, agriculture, crafts production, and rural industry programs are directly aimed at generating economic benefits for various subgroups and in varying degrees have already begun to yield such benefits. Ironically, the health program (traditionally classified under social rather than economic development) appears to have led the way in winning the trust and patronage of the villagers. The education program on the other hand, though one of the largest "spenders," has been relatively slow in producing demonstrable economic or social benefits.

(6) Objective: *To integrate SWRC's various development programs in order to make them mutually reinforcing and more cost-effective.*

Action: In the initial phase there was relatively little integration among SWRC's several programs. Steady progress has since been made, however, with the health program in the vanguard, the rural industry, and agriculture programs following close behind, and the education program taking up the rear.

(7) Objective: *To coordinate SWRC's activities with government agencies and other rural institutions having similar development objectives.*

Action: SWRC has made striking headway in this respect: it has established effective working relationships with a variety of state and national government agencies and a number of nongovernment institutions, with mutually beneficial results.

(8) Objective: *To make a special effort to reach and assist the poorest and most disadvantaged people.*

Action: SWRC has an increasingly good and unusual record here. It has insured that the benefits of the health program reach the poorest members of communities; it has made focused efforts to improve the economic status of destitute women, economically depressed low-caste artisans, and out-of-school youths; and its planned "package program" for marginal farmers and landless laborers, if successful, will be a further important step in this direction.

(9) Objective: *To become substantially self-supporting by providing services on a "no profit-no loss" basis.*

Action: Although SWRC's positive efforts and progress here have been impressive ("earned income" rose to 31 percent of the total budget by 1976), they are still far short of their goal. The indications are that sizeable further progress will be very difficult, mainly because of the sheer inability of many poor families to pay for such services as health and education.

(10) Objective: *To create new SWRCs in other parts of rural India as soon as feasible.*

Action: Despite the expanding workload in the Silora area, SWRC has managed to establish operational beachheads in additional areas of Rajasthan and in three other Indian states.

We can draw the general conclusion from the foregoing facts that SWRC has adhered quite faithfully to its original objectives and has made discernible progress on each one--though significantly more on some than others. What is perhaps most important for the future is that SWRC has learned many practical lessons from experience and has developed a strong momentum that can carry the program forward at an accelerating rate during the next five years--providing it has ample resources and continuing effective leadership.

Tangible Achievements

A second useful approach to assessing SWRC's performance is for one to examine its record of "tangible achievements" in terms of how many individuals and families its various programs have served (bearing in mind that it is a relatively small organization operating with limited resources in a limited geographic area).

A tally of these achievements up to mid-1977 is shown in Table 5, which was prepared at ICED's request by SWRC's management on the basis of program records. The table also includes projections of further achievements foreseen by SWRC's management over the next five years. It will be noted that the expected future achievements considerably exceed the previous ones, reflecting the confidence in the momentum, know-how, and expanded capabilities that SWRC has now developed.

TABLE 5

Tangible Achievements of SWRC
(to July 1977)

Technical Socioeconomic Service	Those who have already benefited	Those likely to benefit in the next 5 years
1. Ground Water Development Drilling open wells/tube wells for farmers, industrial sites, educational institutions.	150	Approximately 600; another drilling unit is being commissioned in SWRC Haryana in Khori Mohindergarh District where the demand is heavy.
2. Ground Water Survey--for locating water for new wells for farmers, industrial sites, voluntary organizations, schools and others	60 well sites in Udaipur District; 125 marginal farmers in Ajmer District; 10 industrial sites for RIMDC	The Ground Water Survey for the ARC (Agricultural Refinance Corp.) has been completed for 110 villages in Silora Block and 198 villages in Jawaja Block: Rs. 35 lakhs as a result have been sanctioned for minor irrigation in Silora Block. It is expected more than 1000 farmers will benefit in 5 years.
3. Agricultural Extension		
1. Custom ploughing services	530	In the next 5 years it is expected that more than 10,000 farmers will benefit from the new schemes to be implemented soon.
2. Seeds distributed to	280	
3. Fertilizers	30	
4. Pesticides	35	
5. Reforestation	180	
6. Demonstration plots	30	
4. Medical and Health		The response from the community to the medical services has been encouraging. One can easily expect the figures to increase by five times in the next 5 years. Another similar program is being duplicated with UNICEF help in SWRC Haryana.
1. Patients treated from 1973 at 2 dispensaries	100,000(+)	
2. Preventive and curative services through 9 barefoot doctors reaching population of	20,000	
3. Maternity cases	130	
4. Eye camps (2)	100	
5. TB cases screened	102	
6. Family planning	20	
5. Education		
1. Establishment of 3 experimental primary schools in 3 villages	300 children including previous 100-150 dropouts	It is hoped the government will multiply this approach and in the next 5 years it will cover more than 1500.
2. Nonformal education classes in 6 villages	150	More centers are to be opened in the other SWRCs and in due course over 1000 men and women should be covered.
6. Social Education Three craft centers where women are being trained to sew with a view to arranging loans for them to own their own machines.	400	More than 2,000 women.

TABLE 5 (continued)

Technical Socioeconomic Service	Those who have already benefited	Those likely to benefit in the next 5 years
7. Rural Industries		With the establishment of a work center through the Ministry of Education and with the state government (RIMDC) interested in helping the backward classes, one can expect in the next 5 years more than 500 families benefiting from this scheme.
1. Weaving: number of families benefited from outlet provided by SWRC	10 families	
2. Cloth printing	2 families	
3. Handicrafts: women making small items on contractual basis	106	
4. Leather tanning	37 families	
8. Preschool Education: Nutrition		
1. Establishment of balwadis in villages	150	In SWRC Haryana more than 20 villages are to benefit from this scheme with support from the state government and UNICEF.
2. Nutrition program--feeding scheduled caste pregnant women and children	150	
9. Training		
1. Marginal farmers in rabi and kharif camp in Silora Block	100	
2. Training schoolboys, teachers and SWRC staff how to make and use puppets/filmstrip kit	150	
3. Nonformal education teachers	12	
4. Primary school education teachers	6	
5. Leather tanners (families)	30	
10. Self-Employment Scheme		
A survey has just been completed for Government of Punjab for identifying potential youth for self-employment	400	
11. Low-Cost Housing		
1. Construction of low-cost Panchayat Ghar for village of Khori--first of its kind in the country.	Whole village	
2. Demonstration of low-cost housing for Harijans; houses are being put in Khori for Harijan families.	100 families	

Source: Prepared by SWRC for ICED.

The statistics of achievements shown in Table 5 do not, of course, provide an accurate measure of the actual impact of these various activities on the lives of the participants. They do not reveal, for example, whether the 100 farmers who participated in the rabi and kharif training camps actually raised their productivity and income as a consequence. However, depending on the nature of the particular activity, these figures provide at least presumptive evidence of significant impacts and benefits already achieved or in the offing.

It seems reasonable to assume, for example, that the 150 wells drilled by SWRC are helping to raise the productivity of the farmers who paid for the service on a "no-profit-no loss" basis.It also seems reasonable to suppose that the health of many of the 100,000 villagers (including repeaters) who have visited SWRC's dispensaries and of many of the 20,000 served by the village health workers and dais are better off today than would have been the case in the absence of SWRC's health program. There are also definite indications that a number of indigent women in the craft production program are now actually earning some much-needed cash, and that the low-caste families engaged in weaving, tanning, and leather work--granting their number is small--are beginning to get a new lease on life. In the absence of adequate data, however, the magnitude of these various benefits can only be guessed at.

It should also be recognized that the main benefits of some of SWRC's past and present activities still lie in the future. For example, the benefits that will ultimately accrue to the young people participating in the experimental elementary schools will come later. Similarly, the benefits of the earlier water surveys will depend on how these are followed up by government investments in irrigation, agriculture, and rural electrification. At the moment the prospects here seemed promising.

To sum up this interim assessment, it may be said with assurance that, notwithstanding numerous practical difficulties, SWRC has on the whole gotten off to a strong start in its first five years. It has adhered closely to its original objectives and strategies and gone a good distance toward demonstrating the validity of their underlying assumptions. It has managed to put in motion a wide variety of development activities that have already directly touched an impressive number of local residents, including some of the poorest. And although it is impossible at this stage to measure with any precision the specific economic and social benefits that have accrued or are likely to accrue in the future from these activities, there can be little doubt that a sizeable number of individuals and families, including some of the poorest, have already benefited appreciably.

This is not to say that all of SWRC's activities have been equally effective or that all has gone well. SWRC has had its share of miscalculations, misfires, and disappointments. But allowing for its unconventional nature and the ambitious mission it set for itself, SWRC's overall record of performance thus far is impressive and encouraging.

The main purpose of this case study, however, is not to commend or criticize SWRC's overall record but to discover specific lessons--both positive and negative--from SWRC's various experiences that might be helpful to others in the future and perhaps also to SWRC itself. Some of these lessons have already been brought out in the concluding commentaries of earlier chapters. In the remainder of this chapter we will refer back to some of these and suggest additional ones.

LESSONS ON INTEGRATION

SWRC's experience helps to demystify and clarify the ambiguous term "integration" as it is popularly used today in connection with rural development. First of all, it demonstrates that integration has various meanings (all of them legitimate) and can take a variety of useful forms. Second, it emphasizes that integration is a relative matter, not an all-or-none phenomenon, and that it usually progresses step by step and cannot be expected to spring full blown from a carefully conceived "integrated plan" on paper. Third, it sheds useful light on some of the common obstacles and essential conditions for moving toward greater integration.

Four Varieties of Integration

SWRC's experience illustrates at least four different type-cases of integration that have their counterparts in many other situations.

(1) Integration of the essential components of a particular program. Any organized development activity or program, viewed as a dynamic "system" or "subsystem," clearly requires the right combination of components to function effectively. If any critical one is missing, or is poorly coordinated with the others, the whole activity suffers and may even fail.

This could well have happened to SWRC's craft training program for women, but fortunately did not. Originally the craft training was included within a social education framework. The women participants, however, were simply not interested in learning craft skills but rather in actually producing craft items for sale. To do this, however, they required not only the skills, but also the necessary raw materials and equipment and access to profitable market outlets beyond their own village. To develop urban markets, however, they needed to develop attractive new designs and to adhere to high quality standards. And to set up their own small production enterprise they also needed some initial credit to purchase materials and their own equipment (such as a sewing machine or loom).

SWRC came to recognize the importance of these essential "system" components and made provisions for them, albeit rudimentary ones. Once they were all in place and properly integrated, the women began earning some much-needed cash--and SWRC began recovering most of its costs for this program.

The rural industry program for traditional tanners and leather workers followed a somewhat similar course. In this case the workers already possessed the skills, but they could not employ them profitably without improved technologies, more efficient management, a supply of credit on reasonable terms, and access to broader markets. SWRC took the necessary steps to provide these missing components.

The health program began with an initial core component--the dispensary --then added other related components, including nutrition, maternal and child care, family planning, immunization and other elements, making for a much more comprehensive health service covering both curative and preventive

measures. It also moved some of these services right down to the village level where they would be directly and easily accessible to the whole community. The net result is that SWRC's community health program as it now stands is considerably more integrated than most government rural health services, which are organizationally fragmented along specialied lines and often do not reach many villages.

In somewhat similar fahion, SWRC's water program became progressively broader and more integrated. It began simply with water surveys, then added well-drilling services, then agricultural extension services, and now it is about to embark on a more comprehensive and integrated "package program" for marginal farmers. Like the health program, it stands in contrast to most government water and agricultural services, which are also fragmented organizationally along specialized lines and therefore do not constitute a comprehensive and integrated agricultural production support system.

(2) Integration between separate programs. SWRC's water, health, and educational programs initially struck out independently in their own separate directions as if they belonged to different organizations. Gradually, however they found more and more fruitful ways to link up with each other.

Health and nutrition services became integrated with the balwadi program. When the village industry program encountered a serious TB problem in certain villages, the health team moved in to correct it. On their regular Sunday visits to the SWRC campus the village health workers took on an additional role as "bottom-up" extension and supply agents for the farmers of their villages.

After "going it alone" for a considerable time the education program began calling upon the expertise of other programs by inviting their personnel to participate in training the experimental school teachers and later the village women attending the new social education training camp. They even served as visiting "teachers" in the elementary schools.

The communications specialist had no separate program of his own; he busied himself helping to strengthen the training and educational components of the health, agriculture, and rural industry programs by preparing useful visual aids and training their staffs to prepare their own.

There is room for further useful linkages between various SWRC programs, but now that the habit has been established it seems likely that interprogram integration will continue to grow.

(3) Vertical integration between the villages and outside support services. SWRC's experience with developing a community-based health system underscores the importance of integrating the activities of the village level health personnel with specialized personnel, facilities, and support services outside the individual village. If the village health workers and dais are to maintain credibility and effectiveness in their own community they must enjoy the continuing close support and supervision of more highly trained health workers; they must be able to get answers when they need them and to make prompt referrals of difficult cases to others better qualifed to deal with

them; they must be assured of the timely replenishment of their medical supplies; and they must keep learning and growing professionally. They are the front line troops of a broad-gauged, community-based health system; but for the system to work effectively it must be closely integrated--not simply from the top down but from the bottom up.

When the "package program" for marginal farmers gets under way, a similar kind of vertical integration from the village level upward will be essential (in addition to horizontal integration of the various components within the package).

(4) Integration of efforts among complementary organizations. SWRC abounds with examples of this type of integration, which is one of its unique accomplishments as a voluntary organization. The water surveys, as already noted, were linked from the outset with various government agencies concerned with water development, rural electrification, and raising the productivity of small farmers. The government agricultural agency provided SWRC with input supplies for demonstration purposes and distribution to small farmers, and sent agricultural specialists to participate in SWRC's farmer training program. SWRC's health program is closely linked in a variety of ways with the state government and private health services. The most innovative activities of the education program--in particular, the experimental primary schools and the survey of underutilized local educational resources--resulted from close linkages with innovative officers in the national and state ministries of education.

Basic Requisites for Improving Integration

The four types of integration cited above--integration *within* programs, *between* programs, between *levels*, and between *organizations*--do not exhaust the possibilities, but perhaps they can help dispel some of the prevailing confusion about the practical meaning of integration.

SWRC's experience also sheds some useful light on another frequently asked question: What are the necessary conditions for achieving greater integration?

The *obstacles* to integration are all too familiar. They are commonly found in the narrow training and vision of specialists and in their natural impulse to concentrate single-mindedly on their own particular "targets." They are also found in the powerful tendency of specialized organizations to "go it alone" and to guard their jurisdictional turf against intrusion by others. Further inhibitions stem from the highly centralized and hierarchical nature of most large organizations involved in rural development. Where integration matters most is at the local level, but to achieve it requires considerable decentralization of detailed planning and decision-making and substantial latitude on the part of lower echelon agents of these large specialized organizations to work across agency lines and with the local people in devising the best solutions for meeting local needs.

SWRC, it must be said, was blessed from the outset with important immunities and advantages not easily replicated in older and larger organizations. First of all, its highest echelon was at the block level,

close enough to the scene of action so that its top managers could have a clear view of the local realities. Moreover, they had a strong disposition to diffuse responsibility among the various team members and to give them wide latitude. Second, as a new organization with a young and relatively inexperienced staff, SWRC was not only committed in principle to an integrated approach but it could also move more easily toward applying the principle because its members did not have to "unlearn" things or uproot old habits and attitudes that ran strongly counter to the whole idea of integration.

Undoubtedly the greatest advantage of all, however, resided in the close community and dynamic "professional subculture" that developed on the Tilonia campus. Specialists tied to different programs lived together, traveled together, traded ideas and observations daily, and learned a great deal from each other and from exchanges with the numerous visitors who came through. Out of this process they all evolved a broader and more unified view of rural development and of how their respective specialties fitted in to the larger whole and related to each other. They also acquired an increasingly better understanding of the development potentialities and limitations of the project area and of the practical needs, circumstances, and outlook of the local people.

Even with all these special advantages, however, SWRC's movement toward greater integration, in all its different meanings and forms, has been a relatively slow and intricate process. Its experiences in this respect suggest the following pertinent lessons that may be of interest to others.

First, there clearly is no one formula or model for achieving greater integration; it takes many different forms and requires a variety of strategies. It is to no small extent a matter of seizing favorable opportunities as they arise.

Second, integration must begin in the minds of the specialists who plan, manage, and operate development programs. Before much can happen they must first acquire a broader and more unified vision of rural development that transcends their own specialty. Only then can they really appreciate the advantages of integration for enhancing the effectiveness of their own specialized efforts, or begin to recognize an attractive opportunity for better integration when they see one.

Third, close physical proximity and frequent informal dialogue among different specialists working in the same area with the same clienteles are an especially effective means of creating favorable conditions for achieving greater integration of what would otherwise be fragmented effort.

Finally, even in the best of circumstances, improved integration of various rural development efforts can only be achieved by a step-by-step process. It also requires goodwill, ingenuity, patience, and persistence on the part of all concerned.

LESSONS ON COMMUNITY PARTICIPATION

The new SWRC team members arrived in Tilonia in 1972-73 imbued with what they now confess was a somewhat "simplistic and romantic notion of villages and villagers." They soon found themselves surrounded by suspicion, hostility, and resentment on the part of the very people they had come to help. "Community participation" could be strongly felt, but it appeared in negative forms of resistance and rejection. Since then the situation has improved considerably. But SWRC reminds those who tend to have simplistic dreams about community involvement in rural development that its own dreams of five years ago still are a long way from being fully realized.

Helpful Steps in Winning the Confidence of Villages

There are good historical reasons, of course, why villagers in many parts of the developing world are skeptical and suspicious of strangers bearing gifts and seeking to intervene in their lives. They have had many bad experiences with outsiders over the years; they have learned to look out for themselves; and they are not about to abandon the customs, beliefs, and practices that have held their families and clans together in adversity for many generations in favor of unfamiliar and untried innovations urged upon them by urban strangers who clearly know less than they do about the realities of rural life.

The situation in the Silora Block is especially difficult in these respects because of the dire poverty of so many people, the static and seemingly hopeless state of the local economy, the divided and stratified character of the social structure, and the lack of established community-wide organizations open to participation by all. Most villages in this area are not really communities in the full sense; they are loose federations of separate caste groups, tied to traditional occupations and arranged in a pecking order of prestige and power. Members of higher castes generally control the "power structure" and are the decisionmakers and managers of village affairs. They are also the ones likely to benefit most from any new services or opportunities that arrive from the outside--such as agriculture extension, irrigation, credit, health, or schools. Those at the bottom of the social-economic order, who are entrapped in extreme poverty with no apparent way out, are largely bypassed by such rural development services and accept their deprivations fatalistically as they struggle to survive another day.

The first major task of the new SWRC, therefore, was to achieve a better understanding of the people and the villages, to win their trust and cooperation, and to size up the development potentialities of the area. The health dispensary was an important early step in this direction because it responded in a practical way to what the local people--of all castes and economic levels--saw as a basic need. They were, and still are, more interested in curing immediate physical ailments than in preventing future ones. The dispensary was also a useful place to get better acquainted with some of the villagers. The surveys later conducted by the medical social worker threw valuable light on the sociology, politics, and inner-workings of the villages themselves. The water surveys placed in clearer perspective the ecological characteristics and economic potentialities of the area. All these early steps

laid useful foundations for building community participation.

The recruitment of several villagers to join the SWRC "team" as agricultural assistants, health assistants, and in other "professional" roles, was especially helpful in building a bridge of understanding and trust--albeit a fragile one--between the new organization and its adopted "clients." The bridge grew stronger as village health workers and dais were added to the team.

Not until the health and rural industries programs began penetrating some of the villages and establishing a local base, however, could it be said that SWRC was finally beginning to win substantial "community involvement" in the sense that local people began playing an active role in planning, operating, and supporting SWRC's programs. Up to then the programs had been largely concentrated on the campus and were doing things for the people, not with the people.

LESSONS ON EDUCATION

SWRC's educational experiences are particularly instructive because they exemplify in microcosm some important universal confusions regarding appropriate educational components for integrated rural development. These confusions stem primarily from the widely held conventional view that equates education with schooling; nonformal education with adult education; and adult education with literacy classes. This anachronistic view also perceives of education as a separate sector (comparable to health, agriculture, and rural industry), with its own distinct set of activities.

It was this view that evidently prompted the founders of SWRC to designate education as one of SWRC's three initial priority sectors and that explains why the Education Program, started off with "100 percent literacy" classes and the social education classes for women (which also stressed literacy). These activities were not tailored to the expressed needs and interests of the rural people in the Silora area; they reflected the standard educator's preconception of what unschooled rural adults most need to learn, and they were essentially carbon copies of conventional educational models that had been tried many times before with questionable success elsewhere in India and in other countries.

The point is that this narrow, isolated, institution-bound view of education is quite inadequate for meeting the diverse and constantly evolving basic learning needs of various subgroups in any poor rural area. It is also basically inconsistent with the whole idea of an integrated and community-based approach to rural development.

By its very nature rural development requires extensive changes in the attitudes and behavior of the rural people themselves--changes in their methods of work, in their dietary and health practices, in family and community relationships, and in a host of other respects. The fundamental role of education --viewed broadly as learning and not simply as schooling or its nonformal shadow --is to provide rural people with new insights into their own life and environment and with new knowledge and skills that will encourage and enable them to accept and adopt these various changes when they can see for themselves that it is in their own best interest to do so.

Viewed in this broader and more functional and dynamic way, education can be seen not simply as one more development sector but as an essential nutrient for all kinds of development activities. While there is definitely a place for certain separately organized educational activities (such as elementary schools), much of the required learning must be built right into the various development activities themselves.

This in fact is what happened more or less spontaneously with SWRC's health, agricultural, and rural industry programs, quite outside the designated Education Program. It was clear that, if the village health workers and dais were to perform their new functions effectively, they would have to be "trained," not just in a one-shot "training program" but continuously on the job. If the villagers in turn were to adopt new health, sanitary, and nutritional practices, they too would need to learn new things, and it was up to the village health workers and dais to teach them in the course of their daily rounds. The same applies to the marginal farmers, the tanners and leatherworkers, and the women craft producers. If they were to improve their lot, they would obviously have to learn new things and end up doing things differently. Fortunately, the teams responsible for these programs were not inhibited by the educator's usual assumption that the best way to learn all these necessary things was through a structured "class" conducted by a "teacher" in a classroom setting. They innovated, improvised, and adapted as they went along. When the first attempt to train the illiterate dais in a classroom failed (because it did not fit their learning style), it was quickly abandoned in favor of a much more informal approach, and it worked. The regular weekend discussion meetings with the dais and village health workers are undoubtedly a more effective approach to training and upgrading them than a more formal training "course" because they tie the learning directly to their practical day-to-day experiences. The demonstration and explanation of new technologies to the traditional leather tanners in a highly informal open-air situation in their own village were undoubtedly far more appropriate as pedagogical methods than collecting them in a classroom to be talked at.

A few other interesting features of SWRC's assorted educational activities are worth noting. First, these activities did not conform to any preconceived overall educational plan; they were largely pragmatic responses to various perceived needs and opportunities that surfaced along the way. This was undoubtedly a very good thing, so long as the "perceived needs" fitted the felt needs of the learners themselves and not simply the preconceptions of the designers of the activity. No educational master plan constructed before the event could possibly have anticipated all of the important learning needs that arose as SWRC's program unfolded, and this observation will continue to be valid in the future.

Second, all of these various educational activities were "nonformal," with the notable exception of the experimental elementary school project. This fact points up the ubiquitous role of nonformal education in rural development and the relatively limited role of formal education.

Third, each of these educational activities was addressed to the special needs (whether real or fancied) of a particular subgroup--illiterate adults, destitute women, preschool or school-age children, marginal farmers, tanners and leather workers, and so forth. This adaptation to needs

is as it should and must be, for no single educational program, "curriculum" or "delivery system" could possibly meet all of the diverse learning needs of these different subgroups.

Although it was not feasible for the study to include a refined evaluation of each educational activity, it was plainly evident that some were succeeding better than others. On the whole it seemed apparent that the cost-effectiveness of the versatile educational components integrated with the various operational programs were more cost-effective in meeting their objectives than the separate nonformal education programs for adults under SWRC's Education Program. On the other hand, the experimental primary school project could turn out to be very cost-effective, especially if it is continued for several more years and if special steps are taken to spread its proven techniques to many other schools.

The following lessons for educational strategy and planning in the context of integrated rural development are suggested by the foregoing considerations and by evidence presented elsewhere in this report.

(1) It is essential in such a situation to employ a broad concept of education that equates it with learning, that embraces the full gamut of rural clienteles and their learning needs, that also embraces the full spectrum of different available methods and modes of education, and that avoids the error of treating education as a separate sector of development.

(2) Schools can be very effective instrumentalities for meeting certain of the essential learning needs of rural children and youths, provided their methods, content, and structure are realistically adapted to these needs and to the convenience and living environment of the learners. Schools should not be expected, however, to meet <u>all</u> of the essential needs of these young people, but only such basic studies as the "three-Rs" and elementary science for which schools are especially appropriate.

(3) The bulk of organized educational provisions for meeting the important functional learning needs of various subgroups in rural communities must necessarily be "nonformal" in nature. But this term covers an extremely wide range of learning objectives, content, and possibly educational arrangements and methods.

(4) Planning of such activities should begin with an identification of the important learning needs and motivating interests of the particular group of learners, not simply as an outsider sees them but as the learners themselves see them. Once these learning needs are clarified, and only then, the most promising and feasible methods for meeting them, compatible with the convenience and learning styles of the clientele, should be selected from among the possible alternatives. In short, planners of nonformal educational activities should begin with the learners and their needs and not with some preconceived institutional "solution" before the needs have even been determined.

(5) Conventional adult literacy classes aimed at abolishing literacy in poor rural areas have a high probability of failure. A much more promising approach is to direct literacy efforts at selected individuals and subgroups in the community who have a specific and substantial functional

need for literacy in their daily life and who are likely to be highly motivated and able to make good use of these new skills. Even then, the conventional classroom style of teaching literacy to children by rote memory and in abstract form should be avoided in favor of a more "natural" approach in which literacy is learned functionally in conjunction with other matters of substantial interest and use to the learners.

(6) Whatever arrangements are chosen to meet particular learning needs, they should be sufficiently low-cost to be affordable, and replicable on a larger scale. This is one good reason for making creative use of all types of potential educational resources available in the area. An equally important reason is that using these familiar local resources will often be more effective than using unfamiliar outside resources.

NEW HORIZONS FOR VOLUNTARY ORGANIZATIONS

Traditionally, most voluntary organizations operating in rural areas have kept their distance, often for good reasons, from government agencies or other organizations and pursued their own purposes independently. SWRC is a striking exception to this general rule. Its experience demonstrates that where government policies are reasonably enlightened and official attitudes toward voluntary organizations are hospitable, there are sizeable possibilities for fruitful cooperation.

In a relatively short time SWRC has developed a wide network of symbiotic relations with various government agencies and other organizations. These have taken three main forms. First, in a number of instances SWRC has filled important gaps beyond the present reach of government services and, in reverse, government agencies have filled gaps in SWRC's capabilities, for example by providing needed supplies and expertise. Second, SWRC has used its flexibility and special talents to pave the way for large-scale government investments beyond its own capacity, as in the case of the water surveys. Third, SWRC has provided a favorable laboratory for research and for testing out innovations of strong interest to government officials, but which a flexible nonprofit private agency is in a better position than government to undertake.

All this suggests the possibility--at least in countries where the conditions are favorable--of a much wider and more influential trail-blazing role for voluntary organizations, working in tandem with interested government agencies. Voluntary organizations like SWRC are especially well-suited to trying out fresh approaches to socially complex problems and integrating fragmented sectoral programs.

SWRC's experience also points up some important problems, limitations, and vulnerabilities of voluntary agencies--especially in connection with staff, leadership, and finances--that must be borne in mind, particularly by sympathetic officials of both public and private funding agencies who recognize and would like to strengthen the special potentialities of voluntary organizations.

SWRC's staff recruitment strategy has taken good advantage of the sizeable pool of "educated unemployed" in the cities, recognizing full well that this strategy would inevitably entail a relatively high staff turnover. A fair amount of such turnover is certainly advantageous for this type of operation, because it insures a steady infusion of fresh ideas, energy, and enthusiasm. But a sufficient degree of staff continuity is also essential in maintaining organizational and program stability, direction, and momentum. Fortunately, SWRC seems to have struck a workable balance thus far between turnover and continuity, but it always faces the risk of having this balance upset.

Creative leadership, with good managerial ability that attracts good people and gets the best from them, is the key limiting factor for any organization like SWRC. The capacity of such leadership sets the limits on the load the organization can effectively sustain in any one area, and on the number of areas to which it can extend its usefulness. SWRC has been singularly fortunate in its leadership, but significant further expansion will demand a greater breadth and depth in its leadership supply and structure.

Securing sufficient finances on which to base stable plans and commitments is the constant worry of top leaders of organizations such as SWRC and often forces a serious diversion of their time from important program affairs. The problem is further complicated by the need of such organizations for sufficient "general funds," as distinct from specific "project funds," to cover organizational costs (often not provided for in project grants or contracts) and to provide room for maneuverability in taking program initiatives on their own. Unfortunately, such general support funds are far harder to come by than specific project funds. SWRC has sought to solve this problem by becoming as self-supporting as possible through "selling" its services on a "no profit-no loss" basis. By normal standards it has so far done remarkably well. It has also reduced its heavy (and always risky) dependence on foreign philanthropic sources. But SWRC may well be approaching the outer limits of its ability to recoup the costs of important services such as health, education, and assistance to marginal farmers. Ironically, the more it succeeds in reaching and helping the poorest families, the greater its difficulty will be in becoming self-supporting.

There is an important message here for all public and private funding agencies that have proclaimed a special commitment to helping the poorest of the rural poor and that have also expressed great faith in the capacity of voluntary organizations to play important roles in this regard. If the decision-makers of such organizations are really serious, they must find ways not merely to provide money for "projects" that fit their own particular interests and objectives but to provide additional "flexible" funds to enable any demonstrably competent voluntary organization to cover its general administrative costs and to maintain its freedom to exercise control over its own program. Unless they adopt this more "generous" policy, the interested funding agencies may unwittingly be helping destroy the very independence, vitality, and flexibility that make the voluntary agency a peculiarly useful instrument of social and economic development.