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FINAL REPORT
PRICOR PROJECT

TRAINING HEALTH WORKERS IN
PAPUA NEW GUINEA

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PRICOR
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Dear Dr. Blumenfeld:

Enclosed you will find the Final Report: Training Health Workers in Papua New Guinea. Every effort has been made to follow the guidelines received from PRICOR. However, if there are any questions, please don't hesitate to ask.

I am looking forward to the PRICOR Conference in June. See you in Washington.

Sincerely,

Ellen Vor der Bruegge, M.P.H.

EVB:rws

Enclosure

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EXECUTIVE SUMMARY

Background and Study Purpose

The PRICOR project in Papua New Guinea (PNG) resulted from a request by a Church Health Secretary for help to reorient the health delivery system of East New Britain Province (ENB) toward primary health care (PHC). During pre-project interaction, some initial problem solving took place. The ultimate target of the PHC efforts would be the people of the remote rural villages. However, the goal of reorienting health delivery required focussing on some aspect of the delivery system. Decision-makers identified the need to train rural health workers as the place to begin. Therefore, the project's operational problem was to train rural health workers to do PHC.

Methodology Employed

In considering the methods to be used to solve the operational problem, the project investigators took a number of factors into account: 1) the quality of available data, 2) the decision-makers experience with and knowledge of the rural health worker and rural health center, 3) the sophistication of the decision-makers in planning, and 4) the selection of techniques that could be understood and used by all of the members of the planning group. The almost complete lack of relevant and reliable data, the difficulties of gathering data in the remote areas, the wide range of knowledge and experience of the members of the planning group, and the eagerness of the decision-makers to implement a training program suggested planning tools that utilized "expert opinion."

Therefore, the project investigators designed a central set of planning sessions that used brainstorming, nominal group technique (NGT), and multiple criteria utility assessment (MCUA) to do problem analysis and solution development. The major tasks of the planning sessions included: creating a common understanding of PHC, defining the objectives of the training program, identifying decision variables and constraints, generating alternative solutions to the problem, and assessing the alternatives to determine the optimal solution.

Problem Analysis and Solution Development

Using the OR techniques, the participants moved from a common understanding of PHC to defining the program objectives. The objectives focussed on increasing skills in: community relations, problem identification, accessing resources, and implementation of PHC projects. The process of clarifying the objectives brought to a conscious level some of the operational problem clusters embedded in developing a health worker (HW) training program. These included: developing a training strategy, creating community organization and support, specifying HW tasks, and selecting and training health workers.

After specifying the constraints and identifying the decision variables, the planners constructed three alternative solutions to the problem of how to effectively train rural health workers. Then they used MCUA to arrive at an optimal solution. That solution created a village-based training program so that HW training took place "among the people" rather than "within the health system" such as at the School of Nursing located in a hospital complex at Vunapope. It expanded the program target to include the rural villagers as well as the health worker. And, it utilized a group discussion and workshop approach to training.

Solution Validation

Acting on the recommendations of the planning group, the Church Health Service (CHS) chose four health centers and surrounding villages as training sites. Two of the sites were in ENB and two in WNB. The sites were among the most remote and least developed areas on the island of New Britain. Each site and the province in which it is located was unique, and the characteristics and location presented different contexts in which to try to implement the training program. Thus, specific areas and not specific individuals were designated for the training program. The place-specific-target, plus the constraints on data collection suggested a case study approach to solution validation. The program objectives gave direction to the case studies by defining two dimensions on which to base evaluation of the success or failure of the project. First, was there a positive change in the workers' and villagers' use of the skills targeted in the training program? Second, were there PHC projects where such projects had not existed prior to project implementation?

Results

Following the guidelines set in the original planning sessions, the training team developed a three phase generic approach that was then adapted to the needs of each site. The program began by focussing on community relations and problem identification skills. Then, while continuing the use of these skills, emphasis shifted to knowledge of and skills in accessing resources and skills in implementing PHC projects. The final phase emphasized assessment of PHC project implementation and reinforced the other skills targeted by the program objectives.

Following the implementation of Phase 1 at the ENB sites, key decision-makers began to realize that both short term and long term success of the project would require finding a way: 1) to sustain the commitment of the health systems to PHC, and 2) to integrate the program into a multi-sectoral approach to community development. Building on this realization, the PRICOR investigator worked with decision-makers to pilot test Phase 2 implementation at Vatnabara on the Duke of York Islands.

The Vatnabara workshop was as strategic to project implementation as the original planning sessions were to problem analysis and solution development. Vatnabara expanded the project target to the entire delivery system. It provided a means of addressing the emerging operational problem

of sustaining system support. It pilot-tested the use of district-level workshops as a context for multi-level planning. It tested the use of community diagnosis mapping, the linking game, and a solution development matrix as techniques to be used within that context. And, it led to the emergence of Phase 2 as the central component of the training program.

The training program was implemented at Nutuve and Muela in ENB and at Unea and Kandrian in WNB. The results of the case studies reflect the unique characteristics of each site. There are, however, some results that were common to all or a number of the sites. In Nutuve, Muela and Unea the HWs established development committees and scheduled visits to the villages to improve community relations and work with the villagers to identify and solve problems. At Kandrian, the health center was a great distance from the targeted villages, and there was little system support for changes in HW activities. The lack of interest and support led to a redefinition of the target to focus on district development workers. Once targeted workers were identified at each site, the villagers, workers and decision-makers used brainstorming, community diagnosis mapping, the linking game and the solution development matrix to identify problems and propose solutions. At Nutuve, Unea and Kandrian district level workshops were held. These workshops brought together the worker, the village big men and decision-makers from many provincial and district level departments. The extreme isolation of Muela prohibited such a workshop. The Muela workers did, however, participate in the Nutuve district level workshop. At each site a significant number of PHC projects were implemented. These included such projects as training village health workers, building water tanks, and planting experimental gardens. The projects addressed the health, education, social and spiritual needs of the people. Thus, problem identification and the PHC projects reflected the broad understanding of PHC enunciated at Alma Aca.

Conclusions

Examination of the results of the case study supports three general conclusions.

1. The OR effort created a solution that effectively reached the goal and objectives of the training program.
2. The flexibility of the OR approach increased the probability of successful project implementation.
3. The OR approach made possible the transfer of self-reliant development skills.

Based on the implementation results and conclusions, the PRICOR investigators made the following recommendations to the Church and the Provincial Health Services.

1. The training program should continue to be reinforced at the four original sites and expanded to other sites in each province.

2. The Church Health Service should train additional staff to work with the health extension team.
3. The Archdiocese of Rabaul should use the OR approach and techniques in training its church staff to do community development work in the rural areas.
4. The Provincial Health Service should continue implementing and expanding the performance appraisal system that emphasizes the PHC component of health worker's responsibilities.
5. The Provincial Health Service should reinforce and expand the community development network with other provincial departments, especially, Education, Primary Industry and Communications.
6. The Church Health Service and the Provincial Health Service should continue their joint effort to plan and implement the HW training and other projects directed toward reorienting the health delivery systems toward primary health care.

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BACKGROUND

Early in 1984, a Church Health Secretary in Papua New Guinea (PNG) contacted planners in the U.S. requesting help to develop and implement a Primary Health Care (PHC) program in East New Britain Province (ENB). Her request focussed on the need to reorient the health delivery system toward PHC. As part of her request the Health Secretary submitted a proposal directed toward "The Primary Health Care Component of a Team Approach to Health Extension Work in ENB" (Tewes, 1983). The Health Secretary's proposal was important for a number of reasons. It represented the commitment of a key decision-maker in the health delivery system to reorient that system toward primary health care. It endorsed the proclamation of the Alma Ata Conference which called for "Health for All by the Year 2000." It targeted the people of the remote rural villages of ENB. It began a process of communication and problem analysis that led to the PRICOR project to "Training Rural Health Workers in Papua New Guinea."

Target Population

The Health Secretary's proposal identified the target population as the rural villagers. In the past, the concept of a target population had been defined in terms of an age, sex, or disease category. Individuals in the target population often had no common bond other than that single characteristic. While that approach to defining target populations was useful, it was not especially meaningful when considering PHC in a society such as that of PNG. Rather, it was counterproductive in the area of PHC, the very basis of which is the community. New Guinea, like many developing countries, has

a rural population which is naturally divided into small cohesive village units. In the remote areas the village is sometimes the only level of community that exists for the people, as opposed to regional, provincial or even national allegiance. A fear of the outside world beyond the bounds of the village locks the people into isolation. Superstition, taboos, and geographic barriers reinforce the homogenous social bonds. The Health Secretary's proposal recognized the danger of too limited a scope in health extension work.

The focus of such work (health education) has been the patrols to health centers and aid posts to conduct maternal and child health (MCH) clinics. While work other than MCH has been done in these clinics, e.g. immunization, treatment of common illness, control of endemic diseases, assistance in family planning, supply of drugs, and some health education, the main section of the population contacted through such work has been mothers, children and those who are sick. For some time now it has been apparent that in order that all the necessary areas of PHC receive attention, the total community needs to be involved. (Appendix A - Health Secretary, December 12, 1983).

Thus, the village unit must be the target of any PHC program. There must likewise be a coupling of medical services with social and economic achievements to improve the health status. This holistic approach would be more appropriate to the village lifestyle than any single-focussed plan for health intervention, and it would emphasize Alma Ata's broad community development orientation toward health.

Health Problems

Nutrition

The health problems of the village people in ENB are profound. Poor nutrition is an overwhelming condition, especially considering its pervasive

impact on all aspects of life. The low infant survival rate, the high percentage of malnourished children, and the anemic condition of many adults are all direct results of poor diet. Taro, singapore and kaukau, all starchy potato-like-tubers, make up the staple diet. These food crops are being threatened by various diseases, but the people are reluctant to change their subsistence agriculture techniques. Protein intake is low. There are few chickens to be used as a meat and egg source. Domesticated pigs roam the villages, often destroying food gardens, but they are only killed for special feasts and thus are not a regular source of protein. Wild game which includes grasshoppers, frogs, lizards, grubs, crocodiles, fish and birds are alternate sources of protein sometimes used by the people. Although a tremendous amount of effort by the National Government of PNG has gone into research and development of food crops, alternate cooking styles and food preservation techniques, major program implementation emphasis has been placed on cash crops.

Malaria

Malaria, one of the leading killers in the world today, is rampant in New Guinea. Resistance to normal treatment has reached high proportions. No spraying operations are attempted due to high cost and doubtful effectiveness. Rough estimates suggest that over 68% of the children in ENB are suffering from the effects of malaria.

Hygiene

Proper hygiene is almost totally lacking. A low level of knowledge about the need for sanitation and waste disposal results in extremely poor living conditions and sets up a high risk situation for disease. Flies,

pigs, dogs, cockroaches, mosquitos and rats all add to the problem. The water supply is often far from the village and not a reliable source year round. Soap is non-existent. Personal hygiene is low. Skin infections are extensive. A study of a group of inland villages in ENB indicated that 36% of the children examined had leg sores and 15% had scabies. To combat the cold at night in mountainous regions, houses have no windows nor chimneys and are built directly on the ground. All of these factors create a vicious cycle of infection and reinfection that threaten the health status of the villagers.

Maternal/Child Health

Very little is known about village childbirth practices, and the women are reluctant to utilize what professional services are available. Extensive taboos for new mothers on the food they may eat make postnatal weakness and anemia almost certain. The low-birth-weight infants delivered by these women begin a new cycle of undernourishment. Bouts with diarrhea compound problems for mothers and children.

Immunization

Problems with immunization efforts, confounded by breaks in the cold chain, are almost insurmountable. Prolonged rainy seasons create rough seas along the coast and extremely hard walking conditions inland. Thus, it is difficult to keep drugs cold while they are transported, and children can be immunized with non-potent vaccines.

Community-Based Health Care System

Examination of rural areas of PNG reveals that delivery of even the most basic health care is extremely difficult. The remote health centers (HC) are the heart of the rural delivery system. In the target area, most of the centers serve about 3,200 people with a range from about 2,000 to 5,500. Access to these centers is limited by distance, other geographic barriers, and cultural differences. These centers provide intermediate health care for the rural villages in an average radius of one to one-and-one-half days travel time. The staff generally consists of a nurse-in-charge who directs two to three other nurses or aides. Most centers have about a 20 bed capacity. Services delivered are limited chiefly to dispensing drugs, treating minor injuries and common illnesses, delivering babies and immunizing children. Regularly scheduled patrols from the health centers provide maternal/child care and immunization programs for the children in some of the remote villages.

In each district varying numbers of aid posts have been built as satellites to the health center. The aid post orderlies (APO) assigned to these posts usually have 12-24 months of elementary medical training. They are supervised by the nurse-in-charge of the nearest health center. The APO's drug supply and treatment capabilities are restricted to basic care and referral to the health center. The service is very narrow in view of the health needs. Analysis of the monthly reports sent to the Health Secretary by each nurse-in-charge of the health centers indicates that utilization of the health center or aid post is generally limited to serving those who come to the facility and request treatment. In some areas underutilization has

been reported as a problem. Likewise, the patrols into the outlying areas are designed to address the needs of a few narrowly defined groups of people.

The root of the utilization problem as well as the limited extension efforts is very complex. The willingness of the health worker (HW) to serve in the rural villages is not in question. They are highly trained professionals representing an elite segment of New Guinea society. These nurses have experienced "the better life" of the city and earn a salary which makes it affordable to them. It is a statement of their dedication that they are willing to serve at a remote health center. However, the health workers' training does not prepare or motivate them to go out into the village and consider the family/social context of the situation. It does not train them to assess problems and seek solutions acceptable to the rural people. It does not teach them to assist the villager to understand the process of disease and sickness or his ability to influence personal health. Instead the health workers unthinkingly encourage the villagers to believe in the miraculous curative power of "western magic" as a substitute for their own superstitions. This is not surprising since the health workers themselves have been captivated by the "band-aid" syndrome of modern medicine which implies that a shot or pill can fix anything.

The health worker's curative orientation is merely a reflection of the health care system of New Guinea, which is a stereotypic end-product found in the health delivery system of many countries. However, the request for help by the Health Secretary, the endorsement of her proposal by the Provincial Department of Health, and the development goals of the National Government all indicated a readiness to alter this orientation.

STUDY PURPOSE

Operational Problem

The first stage of problem analysis began with the Health Secretary's proposal. It signaled the readiness of the decision-makers in the delivery system to reorient their approach to include PHC and community development. The PRICOR proposal was designed to work with people at all levels in the health system and to assist them in assessing the needs of the rural people and developing a suitable PHC approach to community development. Its focus, however, was delineated by the Health Secretary's proposal which identified the rural health worker (health extension officers, nurses, nurse aids, and APO's) as the key to reorienting the system to PHC. Therefore, the operational problems examined in the PRICOR project was the question of how to train health workers in New Britain, PNG to do disease prevention, health promotion, and community development work in the rural villages. The operational objective was to use operations research (OR) to identify the most effective means of training the rural health worker.

As the background discussion indicated, the health center is the component responsible for providing PHC to the rural population. These health centers are staffed by nurses whose training prepares them to immunize, inject -- basically provide curative care. This failure to focus on the total community and to see health needs as part of the larger life situation was recognized in the Health Secretary's proposal.

Seeing that the goal of providing "Health for All by the Year 2,000" is to permit people to lead a socially and economically productive life, it would seem desirable that as far as possible health personnel do not work in isolation but rather together with others responsible for leadership and development in the village community... (Appendix A - Health Secretary, December 12, 1983).

Persons in the health delivery system of PNG genuinely perceived the need to reorient the delivery system, not just change training procedures, and to root that reorientation in broader based community development. These insights brought them to the point of taking a first step toward implementing PHC i.e., determining the most effective way to train the rural health worker. Although the ultimate target was the rural villager, this preliminary problem analysis led the decision-makers to identify the rural health workers as the more immediate target of the training project. This choice differed from the choices made in many developing countries. Generally, training programs have focussed on either training local villagers as community health workers (CHWs) or training trainers. The target of training in this project fell between these two choices and was identified as the health workers stationed in rural areas. The context of the situation in New Britain supports this choice.

Most of the people currently involved in the health delivery system were a product of curative medical training. All of their efforts and training to this point have been directed toward the treatment dimension of health service. It was not surprising that they were not prepared to invest their resources to train people from completely outside the medical system. This pilot project allowed health professionals at all levels of the system to begin to reorient their thinking, to become familiar with using PHC interventions, and to broaden their understanding of health and health delivery to include PHC, community participation and community development.

In addition to the decision-makers' curative orientation, the limited resources of East New Britain made financial support for the program a key

consideration. Since the health worker was already salaried and placed in the rural setting, it was logical to begin project implementation with the available personnel. No great additional investment needed to be made at this time. Again, it gave everyone involved in the delivery system an opportunity to become comfortable with the results of PHC intervention and to anticipate the probable transition of funds from curative treatment to PHC programs.

Cultural constraints also pointed to the health worker as the choice for training. The level of understanding of the average villager, who has a limited comprehension of the concept of health and the disease process, made it unlikely that the rural community would be ready to assume responsibility for supporting a CHW. Just as the professionals in the health system needed an opportunity to reorient their commitment to PHC, so too did the rural people need assistance in developing an understanding of the impact disease prevention and health promotion intervention could have on their lives.

In one sense the village community had directed the choice of who should be trained for PHC. As suggested earlier, the villager had learned respect for "western magic" which was dispensed through the hands of the health workers. The ability to manipulate western techniques carried prestige. Such perceived power could become a vital factor to galvanize community efforts. It could create credibility and acceptance for those involved in PHC. The efficacy of PHC intervention must be demonstrated for an ongoing program to survive. Credibility and acceptance of the worker could help to carry a project through to the point when results become apparent.

As has been discussed, a certain degree of problem analysis and decision-making occurred before the project began. The key element in that

process was the decision to focus on rural health worker (HW) training as the starting point for reorienting the system toward PHC. This decision also dictated the starting point for the PRICOR project in PNG. Thus, the initial operational problem of the project was to determine the most effective way to train rural HWs to do PHC. As the project developed, additional operational problems were identified and the target was expanded. These changes occurred gradually as investigators and decision-makers continued to work through the processes of problem analysis, solution development and solution validation.

As work continued, it became evident that change could not be effective if only the health workers were the target. Rather the whole system had to change, not just one part of it. Embedded in the realization that system-wide change was necessary was a growing ability to identify the many operational problems tied to the health worker training. These realizations occurred throughout the life of the project. As a consequence, the project actually functioned on two different levels. First, it focussed on the most effective way to train rural health workers to do PHC. Second, it involved everyone from the rural villager to the Provincial Health Officer and other provincial level ministers in a new and ongoing process of planning together. The approach and techniques that guided that process were the tools of operations research. Since these changes occurred at different points in the project and sometimes varied with the project site, they will be discussed more thoroughly in the sections on methodology and results.

METHODOLOGY EMPLOYED

As indicated in the previous discussion, a good deal of problem analysis occurred before the formal start of the PRICOR project. The focus on the health workers in the rural areas and the rationale for this choice preceded the official beginning of the project. However, that analysis was done in conjunction with the project investigators. The actual starting point of the project focussed on clarification of the problem of training rural health workers and movement toward solution development. To accomplish these tasks the project investigators took a number of factors into account:

- 1) the quality of available data,
- 2) the decision-makers' experience and knowledge of that aspect of the health delivery system for which they were planning,
- 3) the sophistication of the decision-makers in planning, and
- 4) the selection of techniques that could be understood and used by members of the planning group.

The almost complete lack of relevant and reliable data, the wide range of knowledge and experience of the members of the planning groups, the difficulties of gathering data in remote areas, and the eagerness of the decision-makers to implement a training program directed attention to those planning tools that utilize "expert opinion." Emphasis was on techniques that could capitalize on the experience of people familiar with the rural villages, the rural HW and the health delivery system in ENB. Given the constraints of the situation just mentioned, the ability to tap the experience and insights of these persons appeared to be the key to effective planning.

Therefore, project investigators developed an initial set of planning sessions to continue the problem analysis process and to generate and evaluate solutions to the health worker training problem. Building on the Health Secretary's early efforts to broaden the involvement in the system reorientation process, the investigators chose participants from both the Church and provincial government health service systems. In addition, they sought individuals from many levels of the delivery system. These included administrators and decision-makers, middle-level managers, and health workers themselves. The major tasks of the planning sessions included:

- 1) discussion of the nature of PHC and the identification of problems in rural villages which PHC could address,
- 2) a definition of the knowledge and skills that the rural workers needed to address PHC problems, in other words, a specification of the training objectives,
- 3) identification of constraining factors,
- 4) identification of decision-variables to be considered in developing a training program,
- 5) generation of alternative solutions, and
- 6) evaluation of those alternatives.

A combination of brainstorming and nominal group technique methods was used to address tasks #1 through #5. Multiple criteria utility assessment (MCUA) was used to reach an optimal solution to the operational problem of identifying the most effective way to train rural health workers.

Problem Analysis

The first two tasks of the planning session continued the problem analysis that had begun in the pre-project communication between project investigators and decision-makers of the Church health system. This contin-

uation of problem analysis served three purposes. First, it was important to integrate the entire planning group into the problem analysis process that had previously been restricted to the Church Health Secretary, a few of her advisors, and the project investigators. Second, the discussion helped the participants arrive at a common understanding of PHC. Third, it identified additional operational problems embedded in the issue of how to effectively train rural HWs to do PHC.

The first task was to come to a common understanding of PHC and to identify problems in the rural villages that could be addressed through a PHC approach. The kinds of problems the participants identified clearly indicated that they did have a broad view of PHC and were not working from the more narrow curative orientation. Some examples of the things that they identified as problems that could be addressed through a PHC approach included : hygiene, sanitation, isolation created by the very remoteness of the villages, a safe water supply, poor nutrition, lack of education, not enough variety in crops, and so forth. It was interesting that the participants listed almost 40 problems nearly any one of which they felt that PHC could affect at least to some extent. Although none of the participants had attended such a multi-level planning session before there was no hesitation to participate and no single individual or group appeared to dominate. In addition, the outcome of this discussion helped prepare the participants for the next planning task, that is the definition of the knowledge and skills that would be the focus of the training program.

Objectives

In this next set of discussions, the participants did two things: 1) they clarified the objectives of the training programs, and 2) they identified a number of operational problem clusters embedded in designing an effective health worker training program. After much discussion, the participants arrived at a consensus of five objectives or combination of skill and knowledge that they felt were necessary or most essential for health extension workers to implement the PHC approach for community development.

These objectives were:

- 1) Developing personal and community relations skills.
- 2) Choosing workers who had physical, mental, social and spiritual stability.
- 3) Developing skills to identify the needs and problems of the rural villages.
- 4) Developing knowledge of resources available to them and skills to utilize those resources.
- 5) Developing knowledge and skills necessary to implement PHC projects.

By working together to clarify the objectives the participants identified a number of problem clusters that must be addressed in creating basic health worker training programs (Shaefer, M. and J. Reynolds, 1985:13).

These included:

- 1) Developing of a HW program strategy
- 2) Creating community organization and support
- 3) Specifying of HW tasks
- 4) Selecting of community health workers
- 5) Training of community health workers

Although the participants did not think in terms of operational problem clusters, examination of the objectives and listening again to the tapes of the planning sessions suggest attempts to define objectives that recognized these operational problems.

After defining the objectives, participants were asked to weight these five objectives from "most" to "least" important. Because of the inexperience of the participants in thinking quantitatively, rather than using the ordinary weighting scale of 0-1, a scale of 10-1 was used with 10 being the highest rating and 1 being the least important. Table 1 illustrates these results. Objectives #1 and #2 were both rated at 10. The other three objectives were all rated 9. It was evident from the discussion that the participants felt that each of these objectives was essential for an effective program to train workers to implement PHC projects.

Table 1
Objectives of the Training Program

WEIGHT	OBJECTIVES
10	Personal and community relations skills
10	Physical, mental, social and spiritual stability among the workers
9	Needs and problems identification skills
9	Knowledge of resources and skills to use the resources
9	Primary health care skills and knowledge

A few additional comments should be made concerning the specification of objectives because of the implication these decisions have for the solution development and validation phases of the planning process. First, the original objective--designing a program to train HWs--could be easily stated in quantifiable terms i.e., how many workers were trained. The further specification of the objectives by the planning group more clearly focussed the nature of the training program but identified objectives that were not so easily quantified. Nevertheless, the objectives did have verifiable behavioral indicators. They focussed on change in HW behavior and not just on the number of health workers in a program. This provided a basis for measuring the program's ability to bring about the desired behavioral changes. Second, the objective that focussed on choosing workers for the rural areas who had strong physical, mental, social and spiritual stability was beyond the scope of the project. Instead it needed to be taken into account by those administrators who assigned workers to the remote areas.

Solution Development

Decision Variables

The third task of the planning session was to identify the decision variables. Again the participants proposed a broad list of variables and then narrowed it to six components. These variables included:

- 1) Where to do the training
- 2) Who to train
- 3) How to train i.e., training approach

- 4) What should be the content of the training
- 5) When to train - how long - how often
- 6) Who should do the training

Using the decision variables, the group generated a number of alternative training programs. After discussion they identified three programs as the most feasible solutions. These alternatives are listed in Table 2.

Examination of these three alternatives and additional comments on the discussion that generated them will help clarify them. The first three decision variables are the key elements that delineate the different alternatives. These are where, who, and the approach.

Alternative #1 targeted Vunapope as the location for the training program. Vunapope is the headquarters for the Church Health Service (CHS) in ENB. It includes both a hospital and a school of nursing. Thus, Vunapope represents the center of the CHS operation, but its coastal location puts it some distance from the targeted rural areas. Alternative #2 identified the health center (HC) as the training site. These would be certain HC's identified for the training program by the CHS. The third alternative selected "a central village" for the training location. This choice focussed the training to take place "among the people" rather than within a health delivery system location.

The identification of who would be trained was influenced by the location of the training. In Alternative #1, senior HWs would more readily be selected to go to Vunapope. Training at a health center as designed in Alternative #2 would include all the staff present. It is interesting to note that Alternative #3 broadened the definition of "who" to go beyond health workers and included the villager as the target of training.

Table 2
Decision Variables and the Alternatives

VARIABLES	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3
Where	Vunapope	Individual health center	Central village
Who	Senior Health Workers	Health Center Staff	At first with all the health workers and later with key villagers
Approach	Classroom lecture	A combination of on the job and workshop	Workshop and then group discussions
Content	All PHC skills and Knowledge previously identified	All PHC skills and knowledge previously identified	All PHC skills and knowledge previously identified
Time	Training sessions occurring twice a year, each one lasting one week	One week in duration occurring 3 to 4 times a year	2 days a week for 4 weeks, several times a year
Trainers	Project Team and Resource Personnel	Project Team and Resource Personnel	Project Team and Resource Personnel

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Again, the selection of the location influenced the training approach. The Vunapope-based solution was characterized by the traditional classroom lecture scheme. Alternative #2 focussed on the use of workshops and on-the-job training. The third alternative identified workshops and then group discussions that included the village people along with the professional staff in the training process.

The proposed alternatives differ only slightly for the final three decision variables. Each alternative identified the skill and knowledge represented by the objectives as the "content" of the training program. The "length of time" for training varied slightly. And a team approach to "who would do the training" had already been established by decision-makers in the CHS. The planners also left the specifics of content to the trainers and in general allowed for flexibility within each proposed training site.

Constraints

The fourth task of the planning sessions was the identification of constraints. Again, after lengthy discussion, the participants narrowed the list of constraining factors. Table 3 presents the list of constraints. It also lists the weights the participants assigned to the constraints. Recall that the rating ranged from 10-1.

Factors 2 through 6 represented constraints in the technical sense that constraint is used within OR. Constraint #1 is actually an operational problem. At this stage of the work, however, the planners were not ready to deal with the system support issue. Instead they saw the "system's lack of support" as a given and NOT as a problem to be solved. Thus in that sense, #1 was a constraint. Further into the program, this constraint would come

to be viewed as an operational problem, and in fact, the program expanded to deal with the issue of central support.

Table 3
Constraints of the Training Program

WEIGHT	CONSTRAINTS
10	Problems in continuing support
9	Curative attitude
8	Difficulty in setting work priorities
5	Time away from work and home
5	Problems in transportation
2	Cultural bias

At this point in the planning sessions a number of things had been accomplished: 1) the participants had continued the problem analysis process and begun to specify operational problems within the issue of how to more effectively train rural health workers to do PHC, 2) they identified the program objectives and constraints, and 3) they also assigned weights to both the objectives and constraints. The weighting process anticipated use of MCOA as the model to be used to reach an optimal solution.

Determining the Optimal Solution

The final objective of the planning session was to use MCOA to evaluate the three alternatives and arrive at an optimal solution. This analysis had several phases. Phase 1 focussed on the ability of the alternatives to reach the objectives. The steps in phase 1 were:

- 1) constructing a utility curve for each objective,
- 2) determining the impact of each alternative,
- 3) locating the impact for each alternative on the utility curve,
- 4) multiplying each alternative's respective utility times the weight of the objective, and
- 5) calculating the total and then a mean weighted utility for each alternative. (Delp et al, 1977)

Figures 1, 2 and 3 depict the steps necessary in determining the utility of each alternative relative to a specific objective. Figure 1 shows the construction of the utility curve. Figure 2 illustrates the impact of each alternative. Figure 3 depicts the utility of each alternative relative to the specific objective. Figure 3 indicates that Alternative #3 was rated most useful and Alternative #1 was rated least useful.

Figure 1

Utility Curve for Community Relations Objective

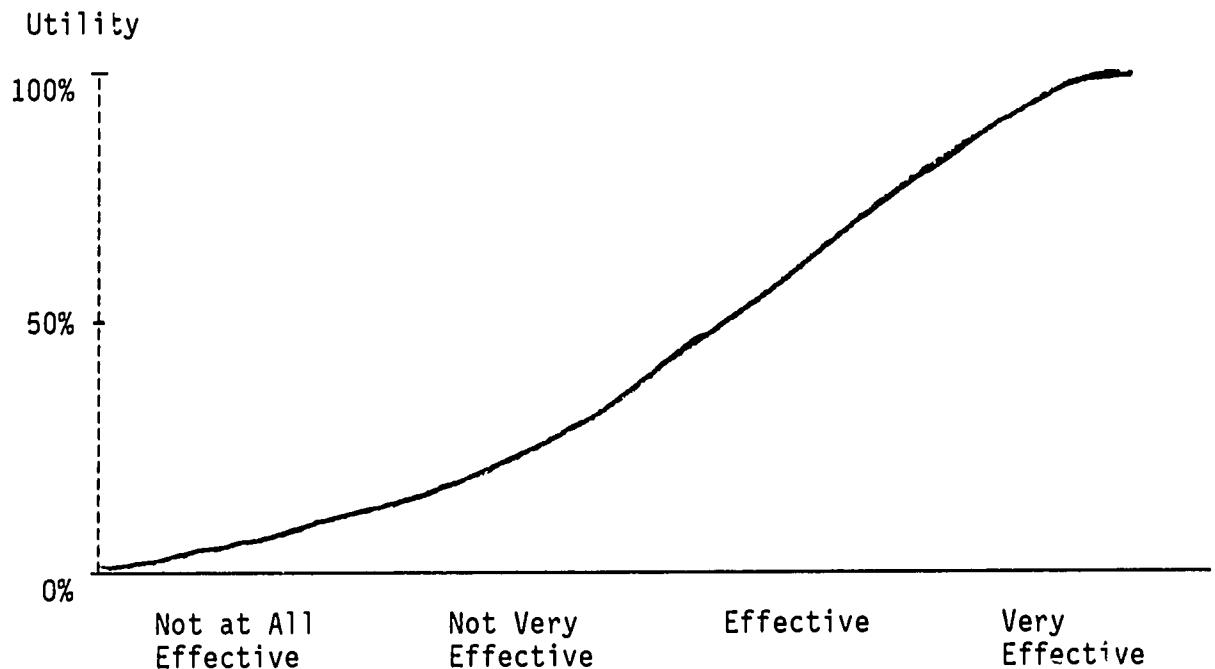


Figure 2

Impact Assessment for Community Relations By Each Alternate

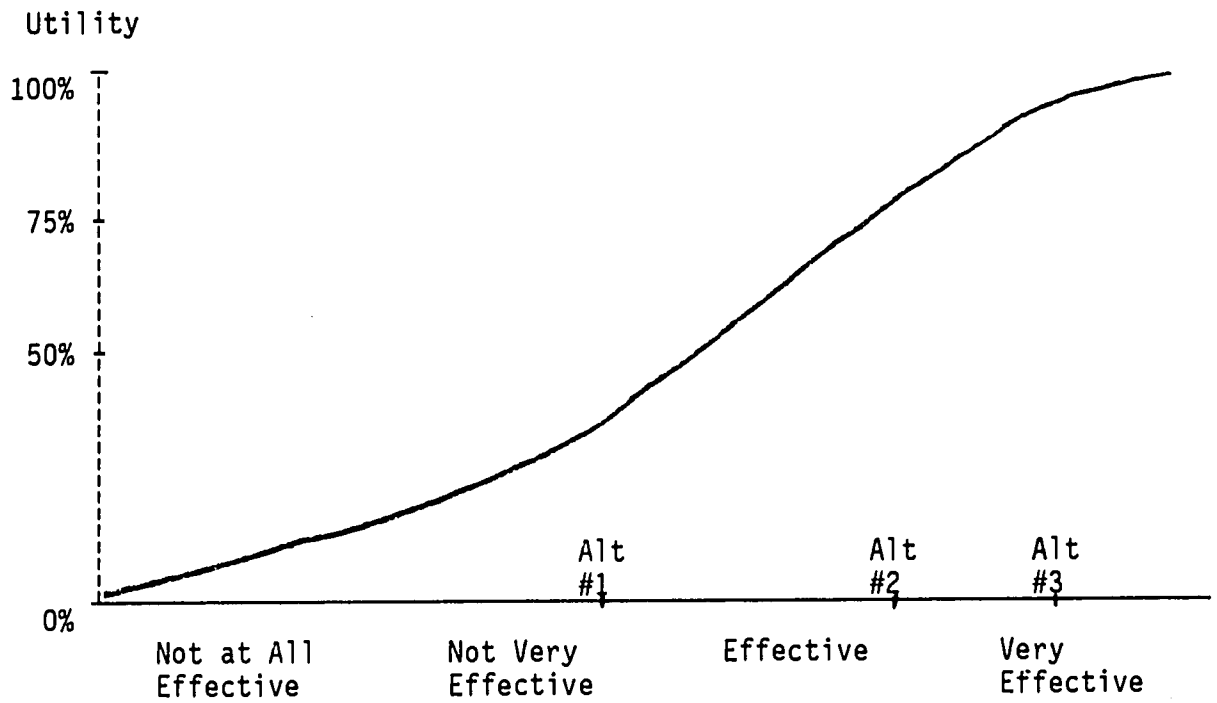


Figure 3

Utility of Alternatives for Community Relations

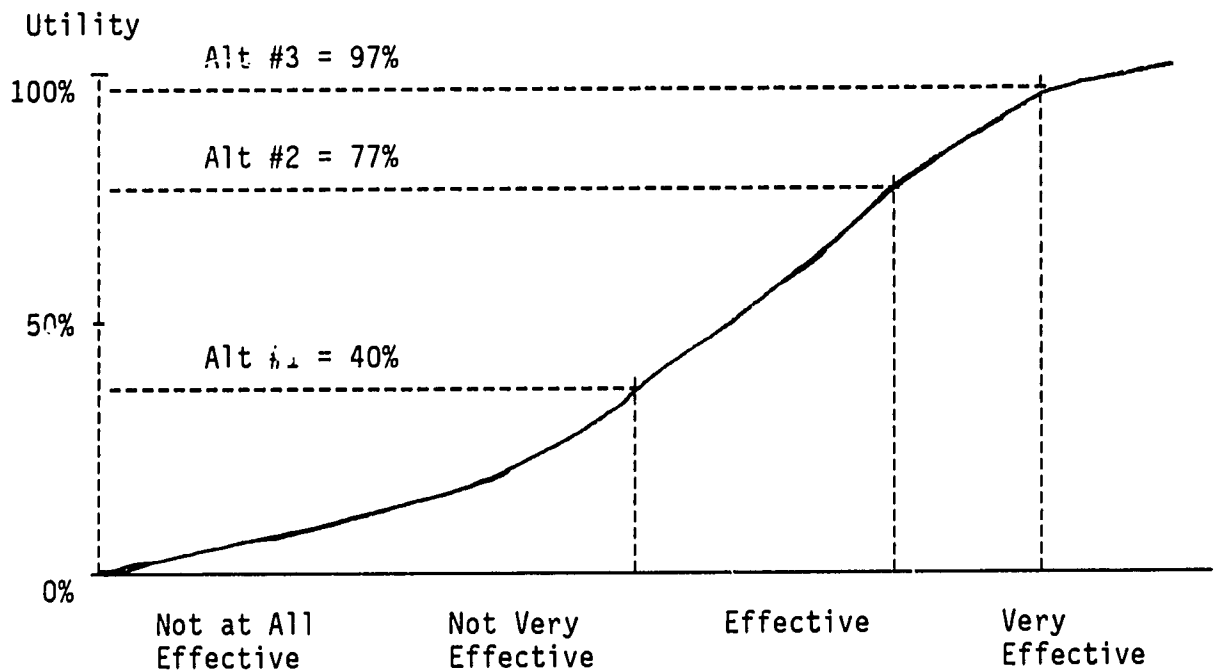


Table 4 summarizes the results of this first phase of solution assessment. As the data in the table indicate, the mean utility of each alternative to reach the objectives of the training program was as follows: Alternative #1 = $\overline{50.6}$, Alternative #2 = $\overline{66.2}$, and Alternative #3 = $\overline{74.8}$. Thus, the planning group estimated that #3 would be a more effective alternative to reach the training programs objectives.

The second phase of solution assessment focussed on the utility of each alternative in handling the constraints. Again, Phase 2 followed the steps outlined above.

This phase can be illustrated with the following example. Figure 4 depicts the utility curve constructed for the constraint of the curative orientation of the workers, the ability of each alternative to handle the curative attitude, and its location on the utility curve.

Figure 4

Utility of Alternatives to Handle Curative Attitudes

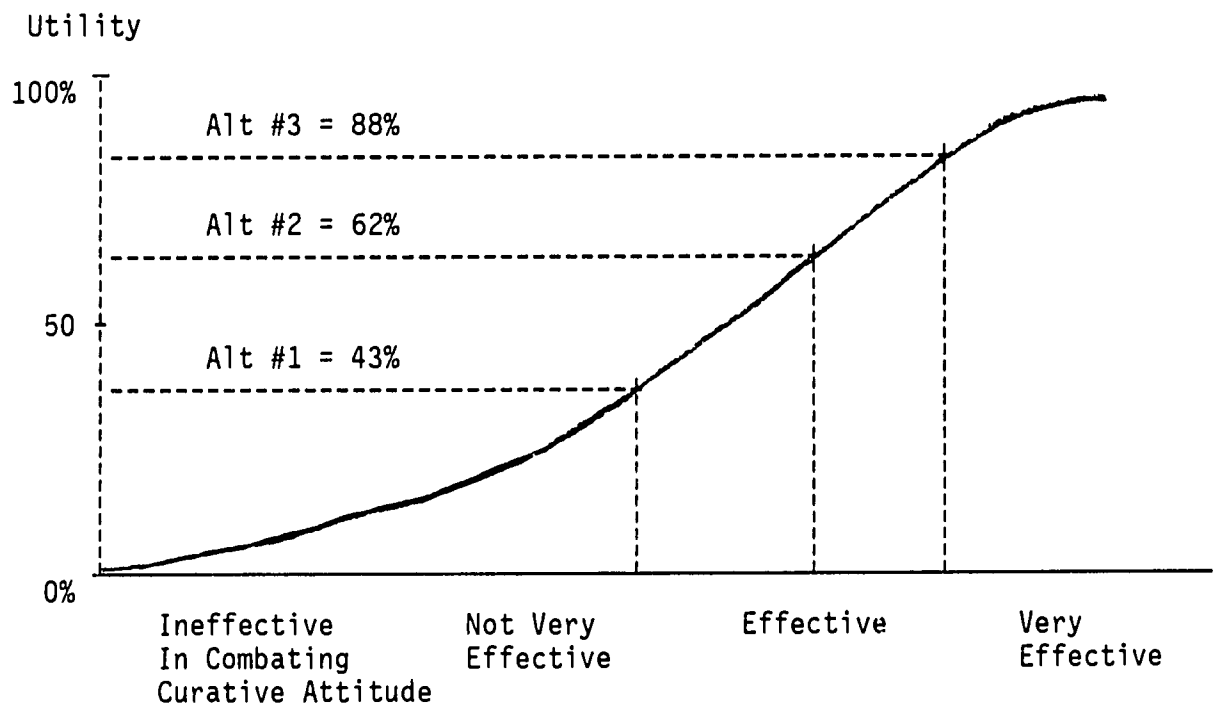


Table 4

Objectives: Summary of Weighted Utilities

OBJECTIVES	WEIGHT	ALTERNATIVE 1 (weight x utility)	ALTERNATIVE 2 (weight x utility)	ALTERNATIVE 3 (weight x utility)
Community Relations	10	(10 x 40) = 400	(10 x 77) = 770	(10 x 97) = 970
Stability	10	(10 x 52) = 520	(10 x 52) = 520	(10 x 52) = 520
Problem Identification	9	(9 x 31) = 279	(9 x 78) = 720	(9 x 96) = 864
Resource Knowledge	9	(9 x 91) = 812	(9 x 60) = 540	(9 x 41) = 369
PHC Skills	9	(9 x 40) = 360	(9 x 64) = 576	(9 x 88) = 792
TOTAL UTILITY	Σ 47	Σ 2378	Σ 3108	Σ 3515
MEAN UTILITY		(2378/47) = $\overline{50.6}$	(3108/47) = $\overline{66.2}$	(3515/47) = $\overline{74.8}$

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Table 5 summarizes the results of Phase 2. As the data in Table 5 indicates, the mean utility of each alternative in handling the constraints was as follows: Alternative #1 = $\overline{46}$, Alternative #2 = $\overline{60.9}$, and Alternative #3 = $\overline{76}$.

In Phase 3 of solution assessment, the participants considered the issue of cost. In this phase the investigators deviated from the usual approach to cost utility analysis, i.e., constructing a cost utility ratio (Reynolds, J. and K. Gaspari, 1985:D-10). Instead, the investigators integrated the cost factor into the MUA process. Only data on direct costs were collected. These included: travel, training costs, food and accommodations. The cost to train the HW at the different locations was estimated as follows: Alternative #1: cost per trainee = NGK 275; Alternative #2: cost per trainee = NGK 95; Alternative #3: cost per trainee = NGK 185 (NGK = New Guinea Kina: NGK 1.00 = US 1.03 early in 1985).

After collecting the cost data, the participants were asked to: 1) determine the effect of different levels of cost on an alternative's utility and 2) evaluate the importance of cost relative to the other criteria of achieving objectives and handling constraints. The discussions focusing on cost were both long and difficult due to cultural perceptions. The participants' initial view of cost can be summarized as "if you have money you spend it, if not, then you make do with what you have." Nevertheless, after much discussion, the final outcome of the effect of cost utility and the relative significance of the cost variable represented a strong group consensus. Table 6 summarizes the results of the MUA strategy using this method.

Table 5

Constraints: Summary of Weighted Utilities

OBJECTIVES	WEIGHT	ALTERNATIVE 1 (weight x utility)	ALTERNATIVE 2 (weight x utility)	ALTERNATIVE 3 (weight x utility)
Continuing Support	10	(10 x 38) = 380	(10 x 58) = 580	(10 x 75) = 750
Curative Attitudes	9	(9 x 43) = 387	(9 x 62) = 558	(9 x 88) = 792
Work Priorities	8	(8 x 58) = 364	(8 x 73) = 584	(8 x 73) = 584
Time Away	5	(5 x 55) = 275	(5 x 55) = 275	(5 x 85) = 425
Transport	5	(5 x 37) = 185	(5 x 47) = 235	(5 x 47) = 235
Cultural Bias	2	(2 x 52) = 104	(2 x 72) = 144	(2 x 90) = 180
TOTAL UTILITY	Σ 39	Σ 1795	Σ 2376	Σ 2966
MEAN UTILITY		(1795/39) = $\overline{46}$	(2376/39) = $\overline{60.9}$	(2966/39) = $\overline{76}$

Table 6
Summary Matrix: MUA Method

CRITERIA	WEIGHT	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3
Objectives	10	(10 x 50.6)=506	(10 x 66.2)=662	(10 x 74.8)=748
Constraints	9	(9 x 46)=414	(9 x 60.9)=548	(9 x 76)=684
Cost	6	(6 x 39)=234	(6 x 79)=474	(6 x 64)=384
TOTAL UTILITY	Σ 25	Σ 1154	Σ 1684	Σ 1816
MEAN UTILITY		(1154/25)=46	(1684/25)=67.4	(1816/25)=72.6

As the data in Table 6 indicate, the participants ranked the variable cost (6) less important than either achieving objectives (10) or handling constraints (9). The relative weighting of these criteria clearly led to the emergence of Alternative #3 as the most desirable choice.

Sensitivity Analysis

After arriving at Alternative #3 as the optimal solution, two types of sensitivity analysis were conducted. First, participants were asked to consider the outcome of the solution assessment session. They were asked if the outcome reflected their opinions or if they wanted to change or modify the results. Second, the investigators used the previously described data and constructed a cost utility ratio. Table 7 depicts the construction of the mean utility for each option without cost being included. Table 8 presents the cost utility ratio for each alternative.

Table 7
Utility of Alternatives

CRITERIA	WEIGHT	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3
Objectives	10	(10 x 50.6)=506	(10 x 66.2)=662	(10 x 74.8)=748
Constraints	9	(9 x 46)=414	(9 x 60.9)=548	(9 x 76)=684
TOTAL UTILITY	Σ 19	Σ 920	Σ 1210	Σ 1432
MEAN UTILITY		(920/19)=48.4	(1210/19)=63.7	(1432/19)=75.4

Table 8
Cost Utility Ratio Method

ALTERNATIVE	MEAN UTILITY	COST/TRAINEE	COST UTILITY RATIO
1	48.4	275K	5.68
2	63.7	95K	1.49
3	75.4	185K	2.45

Since the alternative of choice differed according to the assessment method, the participants were asked to consider the top two choices again. Despite the fact that Alternative #2 has the lowest cost utility ratio, the participants remained adamant concerning the choice of Alternative #3. It is possible that the participants believed that they had reached a decision prior to the break and did not want to contradict the earlier decision despite the cost evidence. The fatigue factor could also have accounted for the reluctance to reconsider the decision. However, all of the planning

sessions were taped and therefore it was possible to "listen again" to the discussion of this issue. The discussion focussed on the substantive merits of the two alternatives. The participants' key argument for choosing Alternative #3 was the importance of the village-based training component of that program. Thus, while other explanations cannot be ruled out, the discussion of the decision seems to reflect a genuine belief in the merits of Alternative #3.

Solution Validation

Acting on the recommendations of the planning group the CHS chose four health centers and their surrounding villages as sites for training. Thus, specific areas and not specific individuals were designated for the training program. This place-specific-choice, plus the constraints on data collection, suggested a case study approach to solution validation. The objectives of the project gave direction to the case studies by defining two dimensions on which to evaluate success versus failure. First, were the workers and villagers using the skills targeted in the training program? Second, were there now Primary Health Care/Community Development (PHC/CD) projects where there were none existing prior to project implementation?

Design

To answer these questions each designated area was treated as a case. Within each area a modified multiple base line design was used to assess the skill level associated with each objective. In this quasi-experimental design each group served as its own control. However, unlike the classic ABA designs, no attempt was made to recover the baseline. Instead, to the

extent possible, baseline observations were made for each skill. As the training proceeded, changes in the use of specific skills were noted. The program focussed on different skills at different phases during implementation. If the program was a success, changes in skills would follow that skill specific phase of training. Skills acquired in an earlier phase should continue to be used.

Measurement

Data necessary for defining a baseline and for measuring change were gathered using traditional case study methods i.e., interviews, observations, written documentation e.g., letters, reports, etc., when available. No single source of information or single indicator was an adequate measure of the targeted skills and knowledge. Therefore, data were gathered using multiple indicators from multiple sources. In addition, only crude measures were likely to be available. Often measures documented the existence or use vs. non-existence or non-use of a skill. Sometimes there were indicators in increasing or decreasing use of a skill. Sometimes qualitative indicators of increasing expertise in the skill could be documented.

The effectiveness of the training program will be separately evaluated for each site. Also, the impact of the project on the different health delivery systems (CHS, ENB, WNB) needs to be evaluated.

Timetable

Table 9 illustrates the original and actual timetables for the project. The time was extended one month to allow for an additional workshop in Vunapope at the end of the project.

TABLE 9
Project Timetable

TASKS	ORIGINAL TIME IN MONTHS	ACTUAL TIME IN MONTHS
A. Problem Analysis and Solution Development 1. Meeting Preparation 2. Introduction of Participants to PHC 3. Planning Session 4. Gathering Data 5. Assessment Process	1	1
B. Prepare Training Implementation 1. Gather Resource Information 2. Analyze Health Center Records 3. Design Skill Training Plan 4. Schedule Team Activities	2	2
C. Training Project Implementation 1. Introduction of HWs to PHC 2. Skill Training 3. Test PHC Project 4. Ongoing Evaluation 5. Workshop Coordination	11	12
D. Evaluation 1. Preparation of Report to PNG 2. Presentation of Results and Recommendations to PNG	1	1
E. Final Report 1. Report to PRICOR 2. Report to PNG	1	1
TOTAL MONTHS	16	17

RESULTS

Training Program

In the solution development step, the planners identified skill and knowledge oriented objectives, and focussed training within the rural villages. They left the specifics of the program to the training team. The team developed a three phase generic approach which was then adapted to the needs of each training site. The training phases were outlined as follows:

Phase 1

Objectives: Gather baseline data
Develop community relations skills
Begin work on problem identification skills

Participants: Rural health workers
Health extension team

Location: Health center and surrounding villages

Procedure: Daily training sessions: discussions,
structured meetings with villagers using
simple OR techniques

Phase 2

Objectives: Continue community relations skills and
problem identification skills
Focus on developing knowledge of resources
and how to access them as well as PHC skills

Participants: Rural health workers
Health extension team
Other community development workers
Resource people

Location: Health Center Will try a central
Nearby villages health center to
 accommodate bringing
 in resource people.

Procedure: Sessions on community diagnosis procedures
and resources available to HC workers
Visit to a village to do community diagnosis

Phase 3

Objectives:	Assess implementation progress of activity plans designed in Phase 2 Reinforce implementation skills, and knowledge and skills necessary to access resources
Participants:	Rural health workers Health extension team Resources people (if possible) Health center and surrounding villages
Procedure:	Use community diagnosis procedures and PHC activity plans as basis for assessing progress Emphasize participation of workers and villages in assessment

In the actual implementation, Phase 2 became the central component of the training program. First, it reinforced the awareness of PHC problems and community relations skills emphasized in Phase 1. Second, it expanded the program's target from the rural health worker and villager to include middle-level managers and top provincial level decision-makers from the health and other development oriented sectors. Third, it provided an opportunity for multi-level planning and led participants to acquire the techniques necessary for such planning.

The real definition of what Phase 2 "should be" was a result of the first training phase. After the implementation of Phase 1 at the ENB sites, there was a growing belief that both the short term success and the long term maintenance of any positive outcomes of the project would require: 1) sustaining the commitment of both the Church Health Service and the Provincial Health Department to PHC, and 2) integrating the program into a multi-sectoral approach to community development. This realization began the shift of the idea of "the continuing need for system support" away from

being perceived as a constraint to being seen as an operational problem. This awareness began with decision-makers in the Provincial Health System and was communicated to those in the Church Health Service. Together, with the help of the PRICOR investigator, they began to address this problem in Phase 2 of the training process.

A pilot test of Phase 2 was conducted in a workshop held at Vatnabara in the Duke of York Islands. Its purpose was: 1) to develop problem identification skills and awareness of resources and how to access them, 2) to orient persons throughout the health system toward PHC, and 3) to help participants understand the role of the rural health worker in PHC and see themselves as resources in the community development process.

Vatnabara Workshop

The workshop was jointly sponsored by the Church Health Service and the Provincial Health Service. Major funding for it came from the World Health Organization and secondarily from the Hans Seidel Foundation. The PRICOR investigator coordinated the workshop. The 35 participants included: the Provincial Health Officer, Health Department Section Heads (Child Maternal Health, TB and Leprosy Control, Water and Sanitation, Malaria Control, Health Education, Special Projects, etc...) and the Church Health Service counterparts, the Church Health Secretary, Health Extension Officers (HEO) and Officer-in-Charge (OIC) of the majority of rural health centers in ENB. The workshop had three phases: 1) orientation of participants to PHC, 2) development of community diagnosis skills (problem identification), and 3) joint work by health providers and villagers to identify problems, assess resources, set priorities and construct an implementation plan (solution development).

Phase 1 of the workshop focussed on creating a common orientation toward an understanding of PHC. It stressed the classic approach to PHC that included the use of appropriate technology, intersectoral interaction, and community participation. The objective was to provide both information and motivation for the participants.

Phase 2 had an instructional and an experiential component directed toward developing community diagnosis skills. A major part of the instruction included presentations by Health Department Section Heads who discussed their jobs, how their section operated, and what information they needed to do their work properly. These presentations helped the participants to learn about the kinds of information needed for a community diagnosis as well as to acquaint participants with available resources and how to access them. After the instructional sessions, the participants were divided into groups and sent to nearby villages to do a community diagnosis. The groups checked the village water source and the gardens, did a general village inspection, interviewed families and individuals and performed physical examinations.

In Phase 3, the participants returned to the villages they had visited earlier. They met with the villagers to discuss what the villages identified as key problems. Using a simple matrix, the villagers and health workers identified problems and resources, set priorities, and proposed a plan of action.

Prior to going into the villages, the participants were quite anxious about interacting with the villagers. They feared that the people would put them into the uncomfortable position of being asked to respond to unrealis-

tic expectations. The participants returned with positive attitudes toward the village experience. They found the assessment matrix usable and effective in the village situation. The follow-up discussion also indicated that in the assessment process the villagers came to see themselves as the "doers" and to see the workshop participants as outside resources to be used as supporting agents.

Vatnabara Techniques

At Vatnabara the PRICOR investigator tested three techniques that would be used throughout the project. The investigators tried to choose and modify techniques to be truly usable and understandable to all the participants.

Community Diagnosis Mapping

The creation of a community diagnosis map is a problem identification technique that visually depicts a village. Working together the villagers and the health worker draw a picture of the village. They identify the nature and location of the houses, water supply, latrines, waste disposal sites, gardens, animals, etc... Together they can then focus on the village, discuss its positive and negative impact on health and begin to identify PHC problems. Figure 5 illustrates one of the community diagnosis maps.

Linking Game

The linking game is a problem analysis tool. It helps health workers to: 1) examine a general problem and break it into smaller components, and 2) consider the nature of these components. The linking game is a technique

that can be used in many situations and at various levels of sophistication. It can be used with the lowest level workers to help them see that many factors influence health. Figure 6 depicts the linking game used with APO's at one of the training sites. In this instance, APOs discussed the problem of infant mortality. They identified factors in a cycle beginning with pregnancy to the death of a child. They considered a variety of problems within the cycle. The nature of these problems may be social, economic, cultural or physical. The linking game can also be used with more sophisticated participants to focus on the health delivery system.

Solution Development Matrix

Designed at Vatnabara, the Solution Development Matrix (SDM) is a simple planning tool. It focuses the group's attention on a set of decision variables. Initially, these variables included the problem, manpower availability, local resources, technical advice and outside assistance. The final form of the matrix and the tool that would be used at the actual training sites is depicted in Table 10. The matrix can be used at the village level, it does not require literacy of all the participants, and yet is understandable to all of them.

Table 10

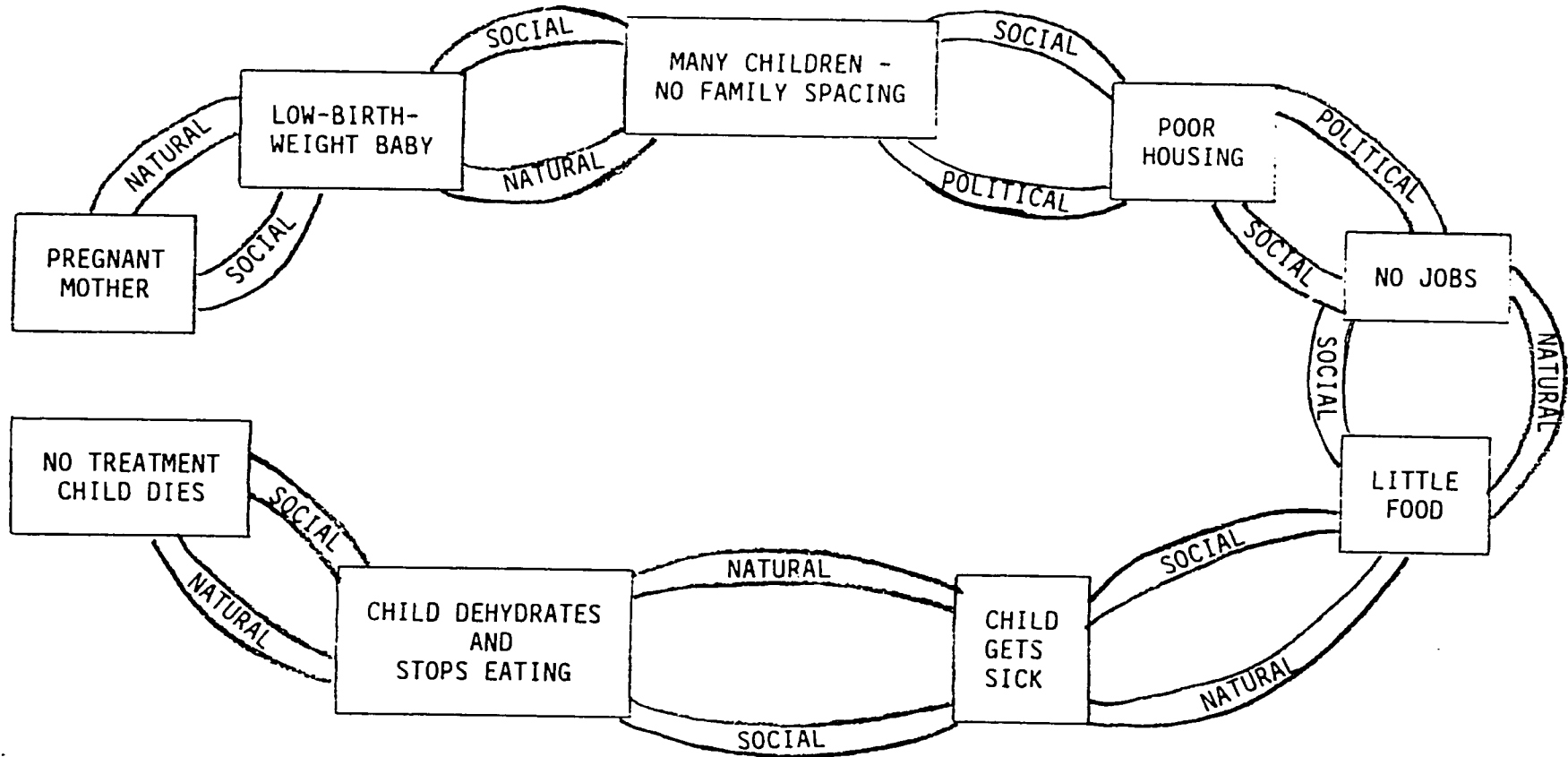
Solution Development Matrix Design

PLACE	NEEDS	LOCAL MANPOWER	LOCAL RESOURCES	TECHNICAL ADVISOR	OUTSIDE RESOURCES	TIME	COORDI- NATOR

Figure 6

Linking Game

Social, Political and Natural Aspects of Health



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The Vatnabara workshop was as strategic to project implementation as the original planning sessions were to project analysis and solution development. Besides being a pilot test of an important phase of the project, Vatnabara gave crucial direction to the entire project in four key areas. These were: 1) expansion of the target, 2) creating awareness of additional operational problems, 3) broadening of the objectives of the training program, and 4) development of an approach and a set of techniques for multi-level planning. First, Vatnabara expanded the target from the villagers and health workers to include middle and top level decision-makers as well as outside funding organizations. Of the outside funders, the participation of the Hanns Seidel Foundation was particularly important. At the time of Vatnabara, Hanns Seidel was beginning to work with the Provincial Health System to develop a performance appraisal system. Through continuing interaction with and seeking the assistance of the PRICOR investigator in the planning process, the health worker evaluation process (performance appraisal) came to emphasize PHC responsibilities.

Second, Vatnabara was important in expanding the decision-makers' understanding of the operational problems embedded in the issue of how to effectively train health workers. It brought into clearer focus four additional operational problems: 1) system support of the HW, 2) HW incentives and motivation, 3) evaluation and monitoring of the HW performance, and 4) linking the HW with other resources. Vatnabara helped solidify the redefinition of the target as the entire health delivery system and began the process of addressing many of the additional operational problems.

Third, Vatnabara expanded the understanding of the objectives of the training. The objectives defined in the original planning session were

formulated as the tools the health workers needed to do PHC. The Vatnabara workshop suggested that the original orientation was too narrow. By expanding the target and providing instruction in problem identification and analysis, and solution development, an important technology transfer could occur. People throughout the system could begin to acquire key skills in self-reliant development. The original objectives still remained but the importance of technology transfer was added to it.

Fourth, Vatnabara pilot tested an approach and a set of techniques that would characterize the rest of the project. These included multi-level participation in most training sessions, initial orientation of the participants to create a common basis and understanding of the sessions' tasks, choosing techniques usable and understandable to all participants, and repeated use of community diagnosis mapping, the linking game and the solution development matrix.

Vatnabara tested the feasibility of multi-level planning and techniques that could be used in a situation that included everyone from villagers to top provincial administrators. However, this workshop was held in a relatively developed coastal area and focussed primarily on health department personnel. The implementation of Phase 2 at the designated sites included participants from many sectors, i.e., agriculture, education, commerce, forestry, etc. as well as health. The workshops took place in very remote areas. These were not always under the auspices of the highly supportive health delivery system of ENB.

Case Studies

Introduction

The Church Health Service designated two locations in East New Britain and two in West New Britain as training site (See Map: Figure 7). Those chosen were among the most remote and least developed areas on the island of New Britain. Each site was unique and the characteristics and location presented different contexts in which to try to implement the training program. Of particular importance were the differences between the two provinces in which the sites were located.

East New Britain (ENB)

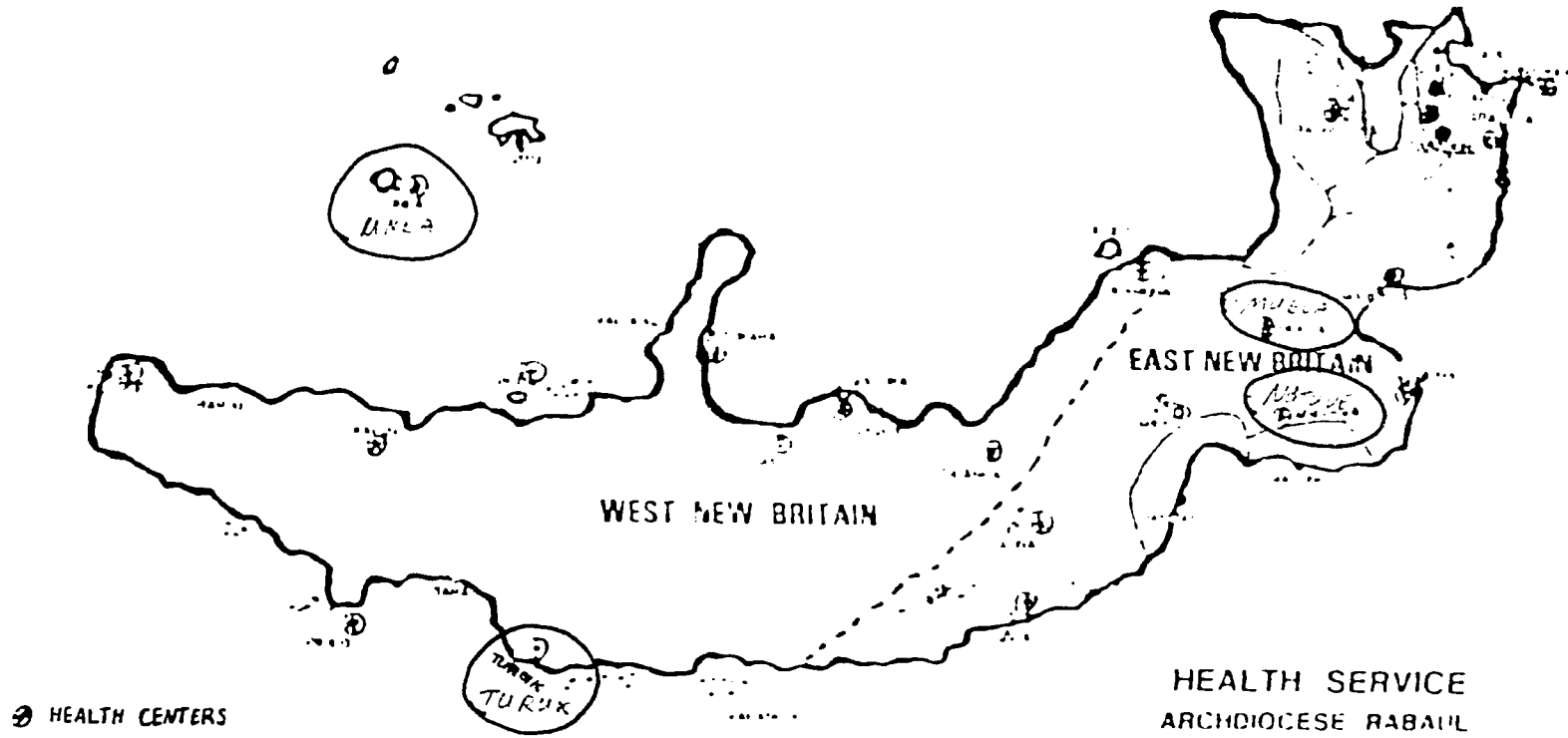
In terms of development, ENB is a province of contrasts. The Gazelle Peninsula is one of the most developed and densely populated areas in PNG. The remainder of its rural areas resembles the rural development of the rest of PNG. In particular, Pomio is sparsely populated, extremely remote and one of the least developed areas of the country. Table 11 illustrates these contrasts in terms of infant and child mortality rates and life expectancy.

Table 11

Mortality Rates and Life Expectancy

RATE CATEGORY	PNG OVERALL	ENB OVERALL	ENB URBAN	ENB RURAL
Infant Mortality	72	60	35	104
Child Mortality	115	90	53	162
Life Expectancy	49.5	55.5	59.4	50.4

MAP OF NEW BRITAIN



Map of New Britain

Figure 7

ENB has a strong, centrally organized government structure. Primarily, planning and decision-making responsibilities are held by those in the top provincial-level offices located in Rabaul. Therefore, the individual who is the Provincial Assistant Health Secretary is the key decision-maker of the Provincial Health System. The Church Health System in ENB is also centrally controlled by the Church Health Secretary. Each of these individuals plays an important role in planning, implementing and supporting the health worker in ENB. Each is very committed to the PHC approach to health delivery, and each works well with the other.

West New Britain (WNB)

Unlike ENB, WNB is a younger and less developed province. Its most developed areas resemble the development level of coastal ENB, with the inland Kandrian district approximating the underdevelopment of Inland Pomino. It has no areas that rival the wealth and development of the Gazelle Peninsula in ENB.

During the time of the PRICOR project implementation, a new, very decentralized government structure was being introduced in WNB. In contrast to ENB, greater authority and responsibility were delegated to the districts within the province. A local government council structure based on ward development committees was instituted to involve the people in a self-government process. Due to new positions in the reorganized government structure, transfers, holidays and long leave, there was no consistency in the top provincial-level offices. Likewise, the WNB authorities had not been involved in the PRICOR project design or the planning session. Thus, project investigators had to evaluate the situation and restructure the

approach to meet the demands of WNB. Once the correct entry point had been identified project implementation began.

Project Sites

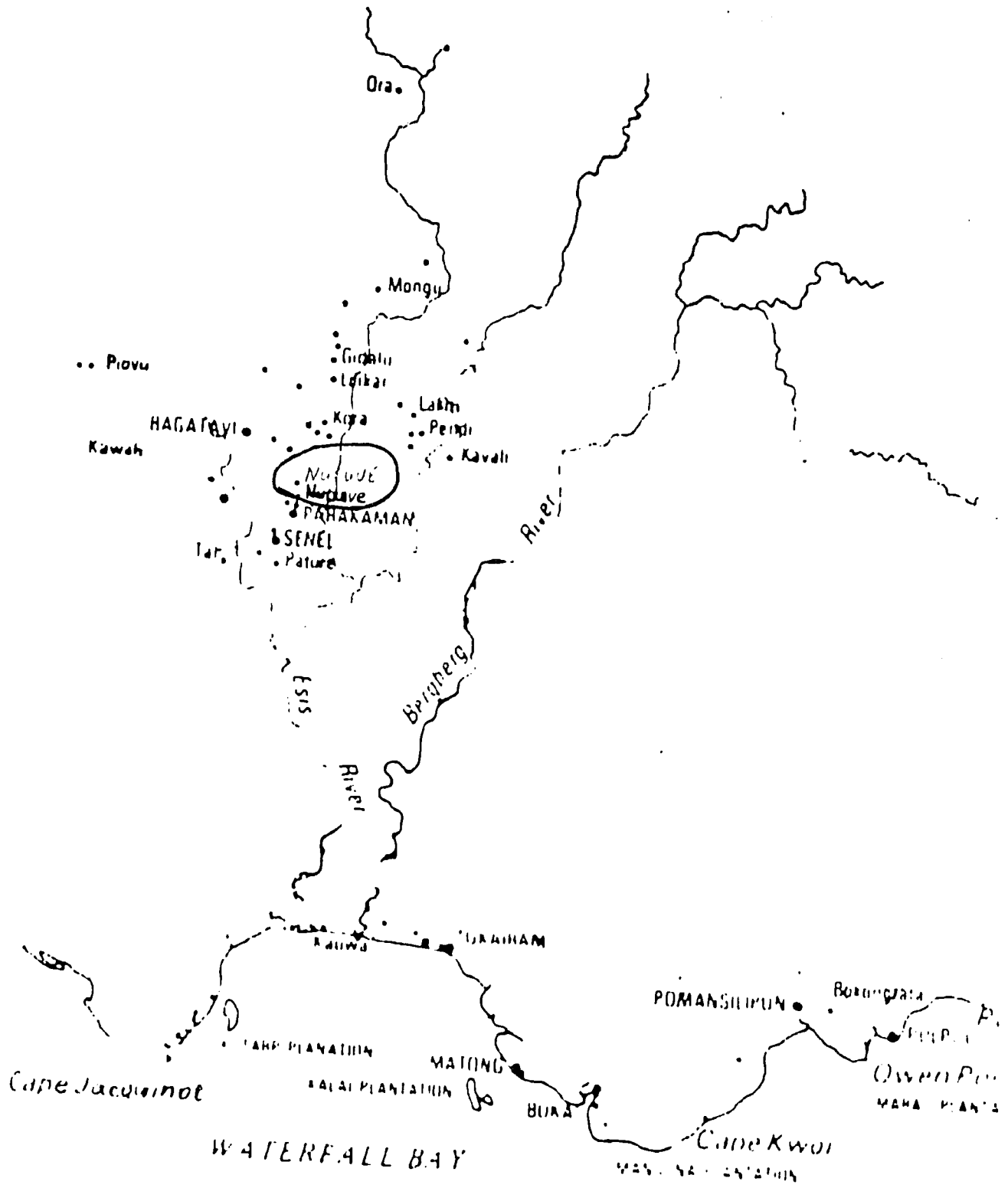
Each case study is named by the location of the health center in the targeted area: Nutuve and Muela in East New Britain, and Unea and Turuk in West New Britain. Nutuve will be discussed first, and the implementation of the training phases will be presented more thoroughly in this case study. The other cases will consist of shorter narratives, with discussion of the implementation procedures noted only as they differ from Nutuve. In the Turuk case study much more detail is given on the actions to prepare for and conduct the workshop. Again this example illustrates the kind of preliminary work that went into each district level workshop. Each of the studies will end with a summary table that illustrates the objectives, outputs, effects and documentation for that case. Most of the documentation will be included in a site specific appendix.

Nutuve - Site #1

Nutuve is the traditional name for the mission station located about a two-day walk inland from Jacquinot Bay on the south coast of East New Britain. A recently built rough timber road has cut the walking distance by half. There is also an airstrip constructed and maintained by local manpower using hand tools. It is occasionally cleared and approved for use by light aircraft or helicopter. Other than the station, the nearest government or church services are located on the coast.

The map in Figure 8 shows the location of Nutuve and the surrounding villages. Two nurses and two nurse-aides staff the health center. Three

Figure 8
Nutve Area Map



teachers are at the community school and two trained catechists maintain the church. These nine workers provide health, education and religious services for the 2,300 people in the 24 villages within a one-day walking distance of Nutuve.

Training Phase 1: Baseline Information, Community Relations, and Problem Identification

At the request of the CHS, the teachers and catechists as well as the health workers attended the training sessions. In addition, Sister Helmtrude, the Church Health Secretary, came from Vunapope to attend. Each health worker wrote a few comments on what he or she saw as the most important aspects of the work and the most serious problems. After allowing each worker to formulate his or her own thoughts, these comments were then used as the basis of the discussion. In general, the health workers enjoyed the curative aspects of their job, had little contact with the wide-ranging provincial resources on the coast and saw the most serious problem as one of "the people don't do what we tell them to do." With the exception of regularly scheduled MCH patrols, they seldom went into the villages. There had also been declining utilization of the Health Center and school at Nutuve.

During the training sessions, the workers discussed many aspects of their work efforts. After a time, they re-defined the key problem as "the people don't understand what we are doing." The workers decided to form a development committee - the Nutuve Christian Community Development Group (NCCDG). They chose the headmaster, Camillus Tati and a nurse, Peter Morris as their leaders. The aims of NCCDG were to:

- 1) improve community awareness of Church and government services,
- 2) increase understanding of the needs of the community and improve cooperation, and
- 3) assist villagers in self-help projects.

They decided to pursue the group objectives using an adult education approach. They sent a notice to all of the surrounding villages to attend a general meeting. During the meeting, conducted by the president of the group, village problems were discussed. The adult education program was announced and dates selected for visits to each of the villages. The visits began an ongoing set of interactions with teams of two members visiting each of the villages on a regular basis. The initial meetings identified water supply problems and serious problems with the two staple crops of the area: singapone and taro. Following the village meetings the NCCDG decided on two plans of action:

- 1) to report the crop problems to the Lowlands Agricultural Experiment Station (LAES) at Keravat, ENB.
- 2) to contact the Water and Sanitation Division (W & S) of the Department of Health for advice on the water problem.

There were a number of results of the first training sessions.

- 1) LAES was completely unaware of the singapone and taro problems in Inland Pomio. For the very first time, they sent a research team into the area (Appendix B - LAES reports and letters).
- 2) W & S assigned a construction technician to visit the Nutuve area. He assessed the situation in regard to materials sent two years earlier to construct five 5,000 gallon metal water tanks. At that time not all the parts were delivered. Those that had arrived were scattered randomly and no technician had been sent to assemble the tanks (Appendix B - W & S reports and letters).
- 3) NCCDG established an on-going process of meeting with people in the surrounding villages.

- 4) Tati sent a letter to the Pomio District Manager and the Department of Education informing them of the actions of the NCCDG. The District Manager responded: "I like to take this opportunity to congratulate you and the newly formed committee in your endeavors to establish a self-help scheme to genuinely tackle the existing problems in your immediate area there. I must admit that the government attempts at times has been very poor over the years and this will still be a handicap in the years to come. None-the-less perhaps our possible solution is the step which you have taken in which your committee became a reconnaissance group identify and doing things in your own little way forces the government to do likewise. Mr. President, I would like to make myself available to assist in anyway, please do not hesitate to inquire." (Appendix B - Tati's letter and District Manager's letter).

Phase 1 began a process of change, change in the roles they played, in the expectations they had of others. Worker-villager interactions increased, problems were identified, objectives set and actions taken. Nevertheless, villagers relied heavily on the health worker and in turn the worker relied on the training team for help in taking these actions.

Training Phase 2: Knowledge and Access of Resources, Initiation of PHC Projects

Following the Vatnabara workshop, the ENB Department of Health agreed to sponsor a district level workshop in a rural area. It would repeat the Vatnabara format and involve all government personnel in Health, Education, DPI, Commerce, Communications, etc... working within the district. The workers and people of the Nutuve area agreed to host the workshop and the World Health Organization (WHO) agreed to fund it.

The personnel at the Provincial Department of Health as well as the staff at Nutuve and Muela Health Centers were involved in the planning and preparation process. All of the participants were contacted prior to the

meeting to clarify their role and expected participation. In addition, the NCCDG and the training team contacted all the village communities involved, explained the process to the people and invited their cooperation. Both the Nutuve and Muela staff played an active role in conducting the proceedings of the meeting throughout the four days.

Central to the workshop was the construction of a Nutuve Development Plan (Table 12) using the Solution Development Matrix. Based on this plan a number of actions were taken after the district workshop:

- 1) A land dispute was settled and an area designated for a DPI (Department of Primary Industry) station.
- 2) Villagers began construction of a house for the didiman (agricultural expert).
- 3) A didiman was posted to Nutuve.
- 4) Application was made for a community school and an APO at an outlying village (Lakiri).
- 5) An aid post was built at Lakiri and an orderly was assigned there.
- 6) A technician was sent to prepare for the water tank construction.
- 7) An experimental garden was started based on the LAECS suggestions.

Training Phase 3: Evaluation of Project Implementation

Phase 3 was a second district level workshop held six months after the Nutuve Development Plan was designed. It had a number of purposes: 1) evaluate progress on the original development plan, 2) officially open the aid post at Lakiri, 3) introduce the performance appraisal process emphasizing PHC to the ENB rural districts APO's, 4) update the APO's

Table 12

Nutuve Development Plan - Original

PLACE	NEEDS	LOCAL MANPOWER	LOCAL RESOURCES	TECHNICAL ADVISOR	OUTSIDE RESOURCES	TIME	COORDINATOR
Everyone	Didiman (Agricultural Expert)	<ol style="list-style-type: none"> 1. Build House 2. Prepare Ground for Garden 	Local Materials Available	<ol style="list-style-type: none"> 1. Carpenter 2. Didiman (Agricultural Expert) 	<ol style="list-style-type: none"> 1. Archbishop's Permission for Ground for House & Garden 2. Tools for House & Garden 	Start Now	*
Paturu Bagitave Lakiri	Safe Water	<ol style="list-style-type: none"> 1. Carry Parts to Village 2. Assist With Construction 	<ol style="list-style-type: none"> 1. Place for Tank 2. Wood 	Water Technician	<ol style="list-style-type: none"> 1. Tank parts -Health Dept. -Community Government 	Start in 6 Months	*
Kula Piovu Bakuria Lalika Mongo Gelioi	Safe Water	<ol style="list-style-type: none"> 1. Carry Sand, Stones, Water, etc. 2. Carry Tank Parts 3. Assist With Construction 	<ol style="list-style-type: none"> 1. Sand, Stones, Water, etc. 2. Approval of Ground 	Water Technician	<ol style="list-style-type: none"> 1. Tank parts -Health Dept. -Community Government 	Start Now	*
Lakiri	Bridge	Assist With Construction	Bush Rope	Engineer	Cable	One Month	*

PLACE	NEEDS	LOCAL MANPOWER	LOCAL RESOURCES	TECHNICAL ADVISOR	OUTSIDE RESOURCES	TIME	COORDINATOR
Lakiri	Community School	<ol style="list-style-type: none"> 1. Take Census 2. Send Application 3. Build School & Teachers House 4. Build Toilets 5. Support Teacher 	<ol style="list-style-type: none"> 1. Approval of Ground 2. Bush Material, etc. 	<ol style="list-style-type: none"> 1. Headmaster 2. Local Council 3. Prov. Educ. Board 4. Natl. Educ. Council 	<ol style="list-style-type: none"> 1. Books, etc. 2. Approval of Government 	Start Now	*
Everyone Bagitave Lakiri	Food (Taro) - Experimental Garden	<ol style="list-style-type: none"> 1. Build Garden 2. Build Fence 	<ol style="list-style-type: none"> 1. Wood 2. Planting Material 	<ol style="list-style-type: none"> 1. Sr. Mary 2. Didiman 	<ol style="list-style-type: none"> 1. Approval for Ground - Father 2. Planting Material 	Start Now	*
Youth Group	Chicken Project	<ol style="list-style-type: none"> 1. Build Pen 2. Investment Capitol 3. Leader 	Agreeable Location	Didiman	<ol style="list-style-type: none"> 1. Chicks 2. Food 	Wait for Didiman	*
Mongo	VHW	<ol style="list-style-type: none"> 1. Carry Supplies 2. Sel. Candidate 	Nutuve H.C.	Nurse	Medicine	In Two Months	*
Everyone	Airstrip Employment	<ol style="list-style-type: none"> 1. Cut Grass 2. Build Fence 	<ol style="list-style-type: none"> 1. Wood 2. Knife 	Tati	<ol style="list-style-type: none"> 1. Pay 2. Wire 	Wait for Approval	*

PLACE	NEEDS	LOCAL MANPOWER	LOCAL RESOURCES	TECHNICAL ADVISOR	OUTSIDE RESOURCES	TIME	COORDINATOR
Gelioi	Law and Order	1. Select Rep. 2. Go for Training 3. Build Court	1. Bush Material House	OIC - Community Government	1. Approval of Comm. Govt. 2. Law Book 3. Approval of Village Court Office	Wait for Community Govt. Notice of Approval	*
Paturu Senel Parakamen	Toilets	1. Dig Hole 2. Build House	Bush Materials	P. Moris	None Needed	Next 3 Mondays	*
Gelioi	Pig Fence and Garden	1. Build Fence 2. Plant Garden 3. Pen Pigs	Bush Materials	None Needed	None Needed	Start Now	*

* This category was added to the SDM after the original Nutuve Plan was developed.

medical training, and 5) begin water tank construction. With this extremely crowded agenda not all the objectives could be reached during the four day workshop. Nevertheless the Lakiri aid post was opened, performance appraisal was introduced, additional APO medical training given, and the progress on the original development plan was reviewed. Two problems targeted in the first plan received most of the attention. These were the didiman and the water tanks.

The original didiman posted to Nutuve stayed a short time and then went on six months leave. He also wanted a plank house rather than the standard government metal house. To respond to these unforeseen problems, the village big men and the Nutuve health workers decided on the following action:

- 1) C. Tati would write to the District Manager and request information concerning the return-or-replacement of the didiman and the government's position regarding the construction of his house.
- 2) The letter would be followed-up in two weeks time by a radio communication for a status report. (See letter in Appendix B)

The water tank situation posed an even more difficult situation. The Provincial Health Department sent a WHO water expert and a technician to Nutuve to teach the people to construct modular ferro cement water tanks. The people, however, had spent the preceding time carrying the supplies plus sand and gravel for the metal tanks. A conflict arose between what the outside advisor would do and what the people had worked for. The decision concerning what the villagers would do was left to the village big men. The day after the discussions the village big men returned to the workshop site. They indicated which villages were interested in learning the new technology, who would carry new supplies up from the coastal "drop off" area and who would carry sand, rock and water. After the workshop, the villagers

kept their agreement, and they worked with the technician and health workers to learn the new technology to construct the tanks. Later the health workers and the district priest worked with the villagers to assemble the metal tanks.

The demanding agenda plus the didiman and water tank problems did not allow time for the people and villagers to revise the development plan. The original plan was left with the health workers, and they were encouraged to continue the evaluation and modification of the matrix. About six weeks after the PRICOR investigator returned to the U.S. she received a copy of the completed and revised matrix (Appendix B - Nutuve Development Plan - 1986). Table 13 is a translation of the Nutuve Development Plan for 1986.

As the training program implementation progressed, the villagers and the workers became more independent in their decision-making and follow-up activities. It was the village big men who proposed a solution to the water tank problem. It was the NCCDG working with the villagers who determined the action on the didiman problem. It was health workers, villagers, and the training team who used the solution development matrix to evaluate the original development plan and create a second plan without the help of the PRICOR investigator. It was the NCCDG and the villagers who took a government proposal to upgrade the airstrip and responded with an alternative proposal of using the funds for a road which they saw as more suitable for their needs and circumstances.

The Nutuve training effort ultimately involved the big men and villagers of the Nutuve area, the nine staff members, 20 APO's of the rural districts, both the provincial government and Church Health Secretaries,

Table 13

Nutuve Development Plan - 1986

PLACE	NEEDS	LOCAL MANPOWER	LOCAL RESOURCES	TECHNICAL ADVISOR	OUTSIDE RESOURCES	TIME	COORDINATOR
Everyone	Didiman	1. Complete House and Ground Preparation 2. Notify Govt.	Necessary Items Available	Didiman	1. Planks 2. Cement 3. Water Tank	Complete In Feb.	1. Fidelis 2. Lai-Moilie
Paturu Lakiri	Modular Cement Water Tank	Carry All the Needed Supplies to the Village	1. Location Approved 2. Sand, Rocks Water, etc.	Masea - (Local Man in NCCDG Trained in New Method)	Moulds, cement, Filings, Wire, etc.	Start Now	1. Sena-Paturu 2. Nick & Joe - Lakiri
Bagitave	Complete Metal Water Tank	Carry All the Needed Supplies to the Village	1. Sand, Rock, Water 2. Frame for Catchment	Masea	1. Metal Sheets -parish priest 2. Bolts and Putty -Comm. Govt.	After Comm. Govt. Meeting	1. Kaure-Councillor 2. Masea
Gelioi	Complete Modular Water Tank	Carry Cement to Village	Sand	Masea	Wire, Boltcutters Cement and Chem. -Comm. Govt.	Start Now	1. Bigilong 2. Masea
Mongo	Catchment for New Water Tank	Construct House	Bush Materials Available	None Needed	Already There	Start Now	1. Leo 2. Fidelis

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PLACE	NEEDS	LOCAL MANPOWER	LOCAL RESOURCES	TECHNICAL ADVISOR	OUTSIDE RESOURCES	TIME	COORDINATOR
Lalika	Repair Guttering	Make Repairs	Bush Materials Available	Michael (Plummer and Carpenter)	Brackets for Securing Guttering	After Comm. Govt. Meeting	1. Kente 2. Michael
Kula Bakuria Piovu Lalika Mongo	1. Tap Ext. Pipe 2. Anti-Rust Paint	Make Repairs	Bush Materials Available	Michael	1. Paint 2. Pipe 3. Tap -Comm. Govt.	After Comm. Govt. Meeting	1. Local Leader 2. Michael
Lalika	Bridge	1. Build Bridge 2. Collect Materials	Bush Materials Available	Stellon	Rope and Plan Are Ready	Begin in One Month	Fidelis
Everyone	Experimental Food Garden	1. Replant 2. Weekly Maintenance Program	Bush Materials Available	Augustine Joe Sr. Mary	Seed	Start Now	1. Village Health Com. 2. Joe 3. Augus-
Lakiri	Community School	Remind Educ. Dept. 1. School wanted 2. Village Support Ready	Bush Materials Available	Local Councillor	Approval of Prov. Educ. Board Natl. Educ. Council	Now and Another Letter in 6 months	Councillor

PLACE	NEEDS	LOCAL MANPOWER	LOCAL RESOURCES	TECHNICAL ADVISOR	OUTSIDE RESOURCES	TIME	COORDINATOR
Youth Group	Chicken Project	1. Build a Pen 2. Investment Cap. 3. Select Leader	Bush Materials Available	Didiman	1. Chicks 2. Food	Wait for Didiman	Select Later
Mongo	VHW	1. Carry Supplies 2. Rep. selected	Nutuve HC	Nurse	1. Medicine 2. Lock Box	2 Weeks To Select Rep.	1. L.Basing 2. Augustine
Everyone	Airstrip Maintenance	Groups: 1. Cut Grass 2. Build Fence	1. Wood 2. Knives 3. Work Sched.	Kasari	1. Wire 2. Nails 3. Pay Money	Start Now	Kasari
Gelioi	Law and Order	1. Representative Already Selected 2. Get Trained 3. Build Court	Bush Materials Available	OIC - Comm. Government	1. Official Govt. Approv. in Process 2. Law Book	Comm. Govt. Next Meeting	Leo Basing
Parakaman	Toilet	1. Dig Hole 2. Build House	Bush Materials Available	P. Moris	None Needed	Finished	Village Health Com.
Senel Paturu	Toilet	1. Dig Hole 2. Build House	Bush Materials Available	P. Moris	None Needed	Mondays Til Done	Village Health Com.

PLACE	NEEDS	LOCAL MANPOWER	LOCAL RESOURCES	TECHNICAL ADVISOR	OUTSIDE RESOURCES	TIME	COORDINATOR
Gelioi	1. Pig Pen 2. Garden	1. Build Fence 2. Plant Garden 3. Pig Pens	Bush Materials Available	None Needed	None Needed	Decided Not Good idea	
Everyone	Teacher's House	Carry Supplies	Sand, Rocks	Michael and Linas	1. Boards, Metal Sheets, Cement	Start Now	1. Michael Monsa 2. Iana
Bakuria 1 Kula Ire Bakuria 2 Piovu	1. Teacher's Kitchen, Toilet 1. School's Toilet	1. Construct Buildings 2. Dig Holes 3. Construct Walls	Bush Materials Available	None Needed	None Needed	Next 2 Thursdays	Village Leader at Each Site
Paturu Senel Birigi Parakaman Bagitave Taravele	1. Nurses's Kitchen, Toilet 1. Health Center's Toilet	1. Construct Buildings 2. Dig Holes 3. Construct Walls	Bush Materials Available	None Needed	None Needed	Next 2 Thursdays	Village Leader at Each Site
Everyone	Monitor School Attendance	Parents of School Children Talk to Parents of Non-Attenders	Local Truant Appointed	Teacher	Teachers Report Attendance to Officer	Started Already	1. Village Leaders 2. Teachers

plus the Ministers of Health and Forestry, the First Assistant Secretary of ENB, the Pomio District Manager and his full complement of officers, the OIC of the Community Government Association, and experts from the Hanns Seidel Foundation and WHO. It resulted in a genuine transfer of the basic OR approach and related techniques. It involved many people in the Church and Provincial Health Delivery Systems. It was the site that received the greatest concentration of training and had the best documentation. The short-term results suggest that the original OR planning session created a feasible and successful program. The long-term results are unknown. Table 14 summarizes the results of the training program at Nutuve.

Muela Area - Site #2

Muela was the second training site chosen in ENB. At the end of a rough timber road it is still a difficult one day walk over bush trails to reach the health center. There is no other way to reach Muela. The map in Figure 9 shows the location of Muela and surrounding villages.

Muela differs from Nutuve in important ways. At Nutuve most villages are within a two hour walk. At Muela great distances - a day's walk-over rough mountainous terrain separates many areas from the health center. Villagers come from different clans which creates social interaction problems. The Muela HC and its four surrounding aid posts are isolated from the rest of the province and from each other.

The HC at Muela is staffed by two nurses, a nurse aid and an APO. There is a community school with three teachers and a catechist for the church. The officer-in-charge (OIC) of the HC, Peter Iliva, also supervises the 4 aid posts located a days walk in different directions from the HC. The Muela HC serves about 4,000 people.

Table 14
Nutuve Summary

OBJECTIVE	OUTPUTS	EFFECTS	DOCUMENTATION*
Community Relations	2 - Phase 1 Training Visits	Development Group (NCCDG) Organized Implementation of Village Visitation Schedule Big Men Participation in Two District Level Workshops	Exhibit #1: Report to Provincial Government and Church of ENB from Tati Exhibit #2: Report to Provincial Government and Church of ENB from Tati Exhibit #15: May HC Report Exhibit #4 and #5: In Appendix A -ENB Signature Lists
Problem Identification	2 - Phase 1 Training Visits 2 - Phase 2 Training Visits 2 District Level Workshops 8 Village Meetings 3 General Meetings	Identification of Water Problems Identification of Crop Problem	Exhibit #3: Morris' Letter to P. Batari

OBJECTIVE	OUTPUTS	EFFECTS	DOCUMENTATION*
Problem Identification (continued)		Solution Development Matrix - Action Plans #1 and #2 Community Diagnosis Mapping	Exhibit #4 and #5: Nutuve Action Plans
Resource Knowledge and Access	Phase 1, 2, 3 Training Visits Vatnabara 2 - District Level Workshops	3 - LAES Research Visits Visit of Health Inspector for Water Tanks Negotiations for Didiman Negotiation for School at Lakiri Negotiation for Base Camp Negotiation for Road rather than Air Strip	Exhibit #6, #7, and #8: Research Reports Exhibit #9: Report From Health Inspector Regarding Metal Water Tanks Exhibit #10: Tati's Letter Regarding Didiman Exhibit #11: Application Exhibit #12: Tati's Letter to Ellen Exhibit #12

OBJECTIVE

OUTPUTS

EFFECTS

DOCUMENTATION*

PHC Project
Implementation

Phase 1, 2, 3 Training Visits

Experimental Garden

Exhibit #14: April HC Report

Metal Water Tanks

Exhibit #13: Peter Morris's Report

Cement Water Tanks

Exhibit #13

Didiman

Exhibit #10

Toilets

Exhibit #14

Base Camp

Exhibit #12

Bridge

Exhibit #17: NCCDG Aug. Minutes

Aid Post

Exhibit #13

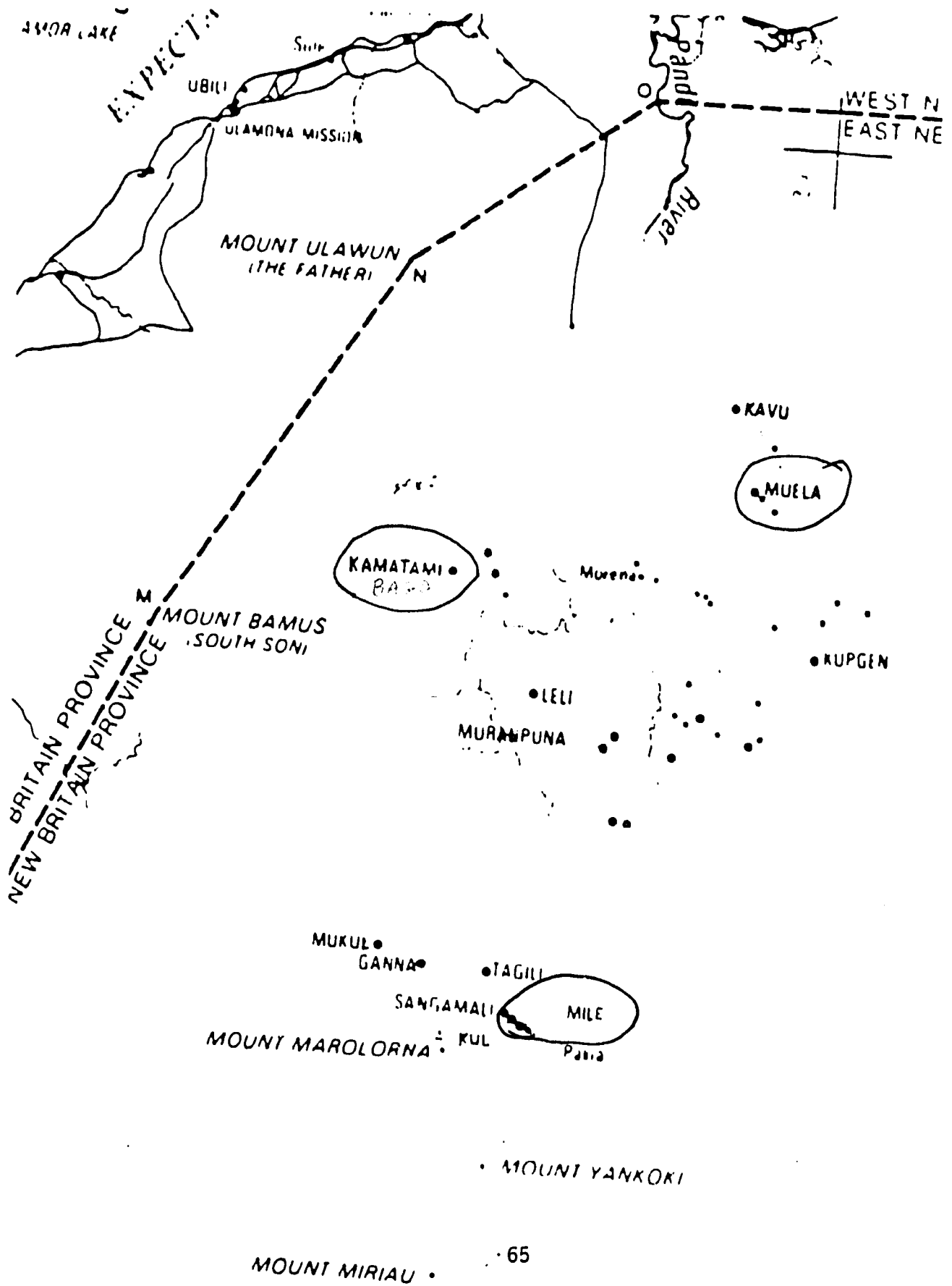
VHW

Exhibit #16: July Staff Report

OBJECTIVE	OUTPUTS	EFFECTS	DOCUMENTATION*
Support to Reorient System Toward PHC	District Level Workshops Vatnabara Workshop	LAES Team Sent to Nutuve Performance Appraisal Funding District Level Workshop By: WHO Provincial Dept. of Health Hanns Seidel Foundation Appointment of APO for Lakiri Didiman Support for NCCDG Establishing a Base Camp	Exhibits #6 - #8 Exhibits #18 and #19: APO Report Forms Exhibit #20: Tati's Report of Second Nutuve Workshop Exhibit #21: Aua's Letter

* Appendix B Unless Otherwise Noted.

Figure 9
Muela Area Map



The target sites for training in the area were Muela and two aid posts at Bago and Mile. The other two aid posts were extremely difficult to reach, served small populations and would tax the project resources too greatly. Unlike Nutuve, each of these areas worked independently of the others. They focussed on one or two projects and relied primarily on brainstorming and community diagnosis mapping as planning methods. Although the brainstorming addressed the components identified in the solution development matrix, the matrix itself was not used as a planning tool.

During the first trip to the area the training team visited the Muela HC and the aid posts at Mile and Bago. They met with the station staff and village people. They found that the baseline situation was similar to that of Nutuve. The workers perceived the people as uncooperative i.e., not doing what the workers told them to do. The workers were not involved in problem identification or solution development as a team or in conjunction with the villagers. Their relation to outside resources was primarily in terms of supplies for the HC. Trips to the villages were for MCH patrols.

Sometime after the initial visit the health staff of each site was changed. It was at this point that Peter Iliva became the OIC for the area. Faced with delays caused by the rainy season and the staff changes, the training team prepared to begin the training program again. Surprisingly, because of the initiatives of the villagers and the OIC, who had attended the Vatnabara workshop, it was not necessary to start from scratch. Instead, a number of actions had been taken at the different sites. Because of the distances the three sites functioned independently, the discussion of the results of the training for each site will be treated separately. The one factor that influenced all sites was the OIC, Peter Iliva. Peter and a

number of his staff participated not only in the training at Muela but also sessions at Vatnabara and the Nutuve district level workshops.

Muela

In the Muela area the health workers tried two different strategies. At Muela they used prayer groups as a means of beginning community discussion as well as more traditional activities such as a demonstration nutrition garden. These activities were not suggested by the people and were not sustained because of lack of interest. At Malboni, a village of approximately 300 people located about a two-hour walk from the health center, a different approach was tried. The OIC built on the initial visit of the training team to the area. He met with the people and their leaders. Using a basic PHC emphasis on community initiative and participation, the Muela health workers began by working with the villagers to draw a community diagnosis map. Together they focussed on a pilot project for a Village Health Worker (VHW). The village selected a local married woman for the training and decided to build a "haus marasin" or health house. The health workers at Muela agreed to train the VHW and provide supplies. After her training the VHW began a health education program with the village people. She also trained her husband with the approval and under the supervision of the OIC. Together they provide basic medical care to the people.

Later another VHW was approved and trained for Maribu, a similar village in the Muela area.

Mile

Mile is a seven hour walk from Muela. The aid post located there serves about 2,000 people in four villages. At Mile the one aid post orderly (APO), two catechists and the village leaders formed the key nucleus. Their objectives and programs spanned the range of holistic development. The people sought assistance to train spiritual prayer leaders from among themselves. This was a significant decision because it reflected a real step towards self-reliance. The people argued that they needed to rely more on themselves and not on the infrequent outside assistance.

A second project initiative was to begin seed multiplication gardens that would allow everyone to diversify their crops and hopefully improve nutrition. In each village the youth groups started the seed gardens under the supervision of a newly appointed youth coordinator. Interestingly enough, this project idea was suggested by the big men to help bridge the generation gap that was a growing concern. It was a solution that involved the youth in a traditional activity - gardening - with the social and potential economic aspects that appealed to the youth.

Lastly, they sought to develop sewing and cooking instruction groups for the women. It was the village men who vocalized this request and gave the necessary approval for the women to participate. This permission opened the door that allowed these women's groups to contact other women's groups on the coast. As their awareness and social skills grew, they elected two women to represent them in the ENB Council of Women. Based on the developments at Mile, women from other areas including Muela began asking for help to start sewing and cooking groups in their villages. These last two occur-

rences are important given the extreme isolation of Mile. They were opportunities for villagers to expand their world perspective and begin to develop skills needed to keep pace with the growing development process in ENB.

Bago

Bago like Mile is a day's walk from Muela. The work at Bago was just beginning toward the end of the project. Emphasis was on community relations and problem identification. Requests were made for seed gardens and cooking instructions.

The key health staff (OIC and APO) participated in the Vatrabara and Nutuve training sessions. As in all cases, the training team encouraged workers and villages to identify their own needs and develop solutions to them. The problems they identified reflected the broad scope of PHC. These included physical, spiritual, economic and social dimensions. Muela differed from Nutuve in the techniques the workers adopted, the independent action of the villagers or APO's, and the key role played by the OIC and the village leaders. Given the extreme isolation of Muela and the vast territory it serves this independence is important. Table 15 summarizes the results of project implementation in the Muela area.

Unea/Bali - Site #3

Unea is the mission station for Bali Island. The island is located off the north coast of WNB about 15 hours by boat from Kimbe the capital of the province. The island is basically circular with about a 7 km diameter. Three tall mountains rise from the center of the island so that the over 7,000 people living there have settled mostly near the coast.

Table 15
Muela Summary

OBJECTIVE	OUTPUTS	EFFECTS	DOCUMENTATION*
Community Relations	2 - Phase 1 Training visits	2 - Community Development Groups Organized Village Visitation Schedule Malboni Community Relations Day	Exhibit #1: Minutes of Development Group Meeting Exhibit #1 Exhibit #1
Problem Identification	2 - Phase 1 and 2 Training Visits 4 - General Meetings	Need for VHW at Malboni and Maribu Mile: Training for Prayer Leaders Women's Development Groups Seed Gardens Community Diagnosis Mapping Food Problems	Exhibit #3, #4, #5: Catechist Letter Exhibit #2: Map for Malboni

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OBJECTIVE	OUTPUTS	EFFECTS	DOCUMENTATION*
Resource Knowledge and Access	Phase 1, 2, 3 Training Visits Vatnabara and Nutuve Workshops Attended By Muela Staff	Acquainted with Resource People VHW Permission and Supplies Instructor and Supplies for Sewing and Cooking Groups	Exhibits #1 - #5 Exhibit #6: Iliva's Report Exhibits #3, #4, #5
PHC Project Implementation	Phase 1, 2, 3 Training Visits	Youth Coordinator Posted 2 - VHW 4 - Seed Multiplication Gardens 4 - Women's Development Groups 4 - Prayer Leader Groups	Exhibit #6 Exhibit #7: Pilot Project Report Exhibit #3, #4, #5

OBJECTIVE	OUTPUTS	EFFECTS	DOCUMENTATION*
Support to Reorient System Toward PHC	Vatnabara Workshop	Youth Coordinator Appointed Performance Appraisal VHW Approval and Support 2 - Development Workers Funded for Area	

* Appendix C Unless Otherwise Noted.

2

Access to the island is provided by a weekly scheduled government barge and various other smaller privately-owned boats. Commercial air service is scheduled twice each week when the weather permits it. Two-way radios provide emergency contact with the mainland of New Britain.

A large portion of the island's tillable land supports a commercially owned coconut/cocoa plantation. While it offers a means of employment and thus cash income, it also severely limits the land remaining for food crops. Studies have revealed that the local people exhibit stunted growth due to chronic undernutrition.

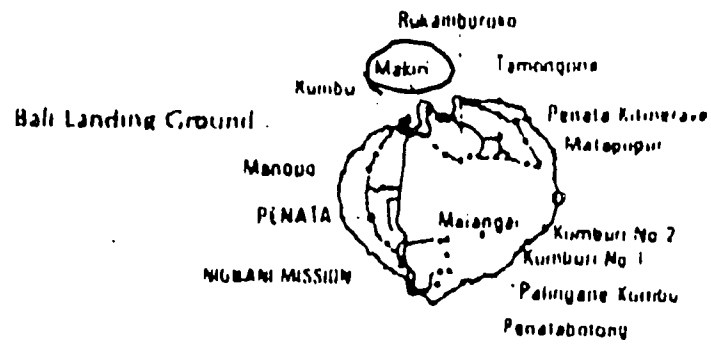
Figure 10 illustrates the island's major villages and other features. The main health center is located on the mission station at Mikiri. Generally, it is staffed by six to seven nurses and nurse aids plus a number of local helpers. They maintain 24 hour service at the 40 bed health center and in addition operate monthly MCH clinics in all the major villages on the island. Makiri also has a community school staffed with 14 teachers, a small vocational school for young girls, and a church maintained by a priest, three to four religious sisters, a brother and several catechists.

Bali Island has three other major population centers: Penopo, Watukele, and Kumburi. All have a community school and a church with professional staff based on site. Kumburi, as well as Nigilani which is the sub-district government headquarters, also have aid posts.

At the time of project startup, baseline data indicated that a health extension officer (HEO) was in charge of the HC. His training and job description included more PHC type work than the regular nursing staff. The HEO had identified a number of needs in the area e.g., toilets, rubbish disposal areas, etc. The HEO was transferred a few months later without

Figure 10

Unea Area Map



UNEA (BALI) ISLAND

having begun any of his projects. He was not replaced. With the exception of the Sister-in-Charge (SIC) who would occasionally go into the villages to give family planning instruction, the remaining nursing staff was content to fulfill their HC and MCH duties.

Project implementation began with a general meeting at Unea. All the health workers, community school teachers, and church staff from all over the island were invited (See signature list in Appendix A - WNB). The purpose of the meeting was to introduce them to PHC/Community Development and to begin Phase 1 of the training. This was done through a series of group discussions and meetings at the different stations. As a result, four development groups were formed - one in each of the population centers on the island. An ambitious set of team visits to the villages was scheduled and carried out. The initial work of the groups focussed on problem identification. Details of these activities are documented in the letters and reports found in Appendix D. However, after a number of attempts by the health workers and teachers, it was evident that the village people were not interested in working with the station staff in problem identification and solution development. The villagers perceived the staff as "outsiders". The villagers wanted to work on the problems themselves and use the health workers as resources. This situation led to a major shift in the training approach taken on Bali Island. Although the project investigator continued to work with the station staff, she also set up a program targeting the villagers.

This shift coincided with a request to the PRICOR investigator from the sub-district government coordinator. He asked for help in introducing the new provincial Ward Development Committee (WDC) structure. A joint workshop was planned. The purposes of the workshop were:

- 1) to introduce the WDC structure at the village level,
- 2) to consider the "whole person" in community development, and
- 3) to introduce participants to the necessary skills and techniques to successfully identify problems, plan and implement village based community development projects.

Using the Solution Development Matrix (SDM) a number of problems were identified and solutions proposed. Table 16 illustrates the solution development matrix that was constructed at the Unea workshop. Because of commitments in Turuk, the PRICOR investigator did not attend the Unea workshop. For the first time an entire district level workshop using the OR approach was conducted by someone other than the PRICOR investigator. Sr. Mary Drum, a member of the training team, worked with the Bal. staff to plan and coordinate the three day meeting.

Unea was quite different from the ENB sites. The training approach had to be revised to meet the problems that arose at this site. A great deal of time was spent determining how to adjust the program to the new circumstances. It was not possible to move through two iterations of the action plan (SDM). Nevertheless, once the training approach was adapted to the new circumstances, progress began to be made. Again, the OR techniques were useful tools in the new situation and technology transfer occurred. On the other hand, the training program (originally designed by ENB health system personnel) needed a number of changes to be implemented in Unea. Table 17 summarizes the results of the training program at Unea.

Table 16

Unea Development Plan

PLACE	NEEDS	LOCAL MANPOWER	LOCAL RESOURCES	TECHNICAL ADVISOR	OUTSIDE RESOURCES	TIME	COORDINATOR
Manopo Penata	Fishing	1. Village Youth 2. Fishing Experts	1. Handmade Nets 2. Canoes 3. Fishing Gear 4. Fishing Rights 5. Land 6. Storage Place	1. Fisheries Officer-Kimbe 2. Business Dev. Officer-Bali 3. Population (Market)	1. Boad & Engine 2. Freezer -Kerosene -Elec. (Gen.) 3. Nets & Other Gear 4. Housing Material 5. Loan K1,000	February 1986 -Lead Time (2 Months)	WDC
Penata-botong Nalagaro	Semi Intensive Piggery	1. Village Labor -Clear Ground -Cut Posts 2. Select Care-Taker TOTAL PROJECT COST: K1,500 - to be funded from village contributions and local Government Council funding.	1. Land Rights 2. Local Trees 3. Food for Pigs 4. Money	1. Didiman-Bali 2. Business Dev. Officer-Bali	1. Fence Wire 2. Nails 3. Iron Posts 4. Timber 5. Pig Food 6. Money-Council	Start August 1986	WDC
Malangai Kumburi 1	Sea Wall	6 Youth Groups	1. Sea Rocks, Soil, Sand 2. Canoes 3. Logs 4. Money K600	1. Engineer or Surveyor 2. Sub-District Coordinator	1. Iron Bars 2. Money K1,500	Sept '86 to Sept '88	WDC

PLACE	NEEDS	LOCAL MANPOWER	LOCAL RESOURCES	TECHNICAL ADVISOR	OUTSIDE RESOURCES	TIME	COORDINATOR
Kumburi 2 Navandau	Copra Drier	1. Carpenter 2. Village Labor -Clear Site -Help Carpenter	1. Land Rights 2. Money K300 3. Stone 4. Gravel 5. Sand	Didiman	1. Money-K400 -Rural Dev. Fund -K1,410 Agricultural Bank 2. House Plan 3. Tools, Nails, Cement, Timber Metal Sheets 4. Transport Hire	March '86 to June '86	WDC
Ketinerave Tamagone	Transport	Hold meeting and and Discuss K7,000 Contributions	1. Local Wages From Jobs 2. Driver 3. Chairman	1. Didiman 2. Business Dev. Officer 3. Land Surveyor	Bank Loan	April '86	WDC
Rukaboroko Makiri	Water Supply	1. Village Labor -50 Workers 2. Parish Priest -Coordinator	1. Dirt, Sand, Water, Stones 2. Money-K1,000 Village Contribution 3. Trans- portation 4. Tools	1. Plumber-Kimbe 2. Engineer-Army 3. Land Surveyor -Kimbe 4. District Coordinator First Assist. Secretary	1. Cement 2. Pipes 3. Fittings 4. Tanks 5. Money - K5,000	5 Months	WDC

OBJECTIVE	OUTPUTS	EFFECTS	DOCUMENTATION*
System Support to Reorient System Toward PHC	District Level Workshops Justice, Peace and Development Presentation Who - PHC Workshops Management Seminar Sponsored By CHS	Workshop Funded by Provincial Government Provincial Government Funding for PHC projects: Sea Wall and Water Supply	Exhibits #10: November 22, 25, 26, 1985 Drum Report

* Appendix D Unless Otherwise Noted.

Table 17
Unea Summary

OBJECTIVE	OUTPUTS	EFFECTS	DOCUMENTATION*
Community Relations	2 - Phase 1 Training Visits	4 - Community Development Groups	Exhibit #1: April 9, 1985 Report
	1 - General Meeting	Education Week	Exhibit #2: Education Week Report
	4 - Group Meetings	6 - Initial Village Visits	Exhibit #3: March 11, 1985 Report
		Villagers' Participation in Meetings and Workshops	Exhibit #1 Appendix A - WNB Signature List Exhibit #10: Joint Workshop Report
Problem Identification	2 - Phase 1 Training Visits	6 - Village Visits	Exhibit #4: April 1, 1985 Report
	4 - Group Meetings	Solution Development Matrix	Exhibit #5: Completed Matrix
		Education Week	Exhibit #2
		Problem Identification Matrix	Exhibit #9: Oct. 2, 1985 Report
		6 - Extensive Lists of Problems Identified	Exhibit #6: Village Meeting Report

OBJECTIVE	OUTPUTS	EFFECTS	DOCUMENTATION
Resource Knowledge and Access	2 - Phase 2 Training Vists District Level Workshop	Proposal for Funding of Community Library Request for Workshop Assistance	Exhibits #7 and #8: Letter and Proposal
PHC Project Implementation	2 - Phase 2 Training Visits District Level Workshop	Youth Fishing Business Village Piggery Sea Wall Construction Copra Dryer Construction Co-op Truck Water Supply System	Exhibit #5 Exhibit #5 Exhibit #5 Exhibit #5 Exhibit #5 Exhibit #5

OBJECTIVE	OUTPUTS	EFFECTS	DOCUMENTATION*
Support to Reorient System Toward PHC	District Level Workshops Justice, Peace and Development Presentation Who - PHC Workshops Management Seminar Sponsored By CHS	Workshop Funded by Provincial Government Provincial Government Funding for PHC projects: Sea Wall and Water Supply	Exhibits #10: November 22, 25, 26, 1985 Drum Report

* Appendix D unless Otherwise Noted.

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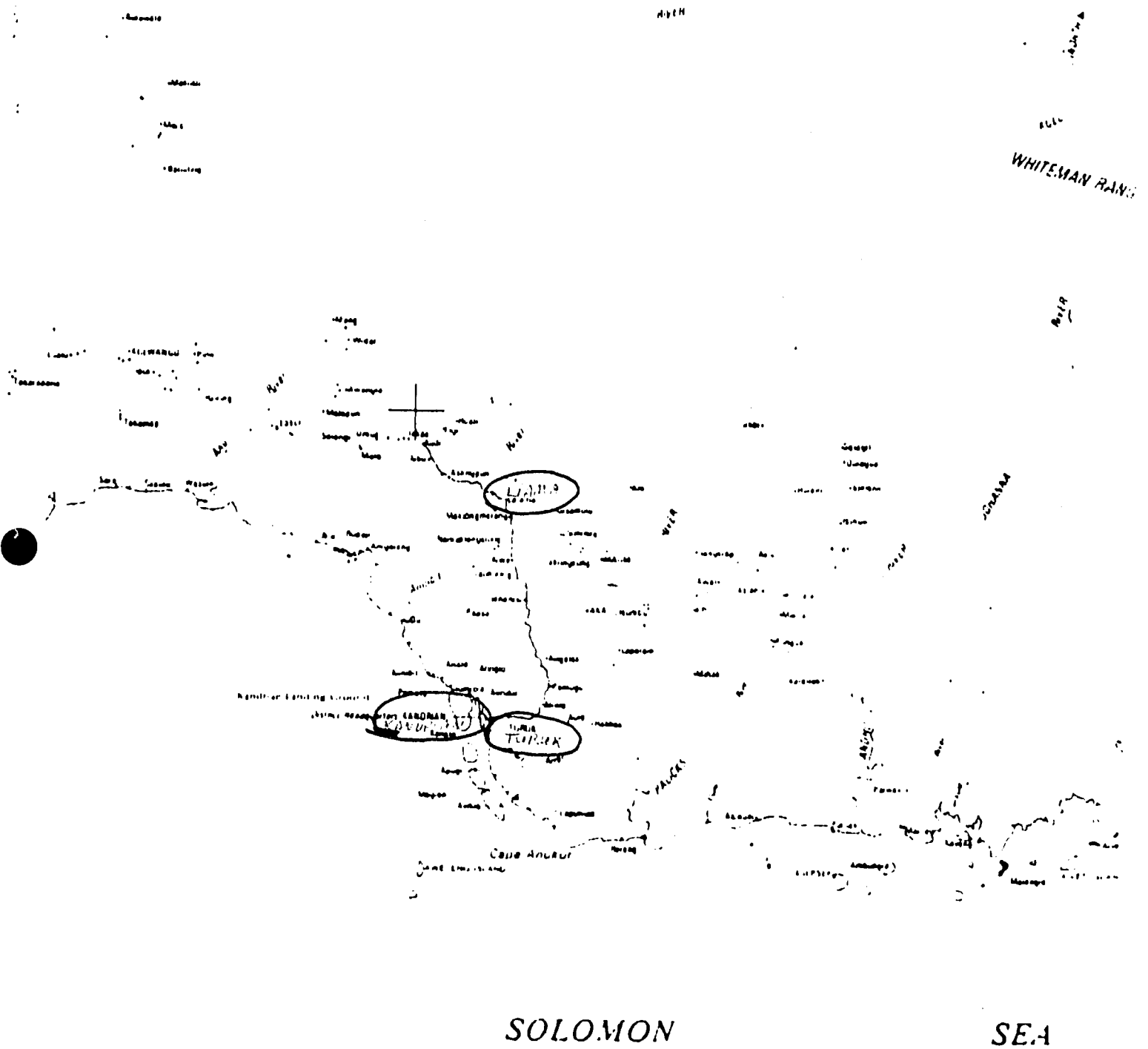
Turuk/Kandrian - Site #4

On the south coast of WNB is the large government district of Kandrian (See Figure 11) Like the Inland Pomio area of ENB, inland Kandrian was designated in a National survey as one of the most undeveloped areas in PNG. Access to Kandrian is limited. It is two days by boat from either Kimbe or Rabaul, the nearest cities and sources of support. A commercial airline plans three flights each week. However, air service is very irregular due to weather and higher priority flights necessitating changes in the schedule. Solar-powered telephones, which have been recently installed, provide a communication link.

Prior to the establishment of the WNB Provincial Government System, a mission station, Turuk, was built in the area. Turuk consists of a church, a health center and a community school. A staff of ten persons provide health, education, and church services to the people. Delivery of health services was limited to those coming to the station seeking help or to mothers and children during MCH patrols to the remote areas. No other health promotion or disease prevention activities were pursued by the HW's.

Because of the remoteness, the provincial government established a district headquarters in the same general area at Kandrian. All of the government services are represented. During the first years of operation, attention was devoted to establishing an aid post network throughout the Kandrian district. A second health center was built between the coast and remote bush settlements in the mountains. In addition, a small hospital supervised by a volunteer doctor was built at the Kandrian Headquarters to

Figure 11
Kandrian Area Map



handle emergency cases. By the time the PRICOR project began, this system was fairly established and the medical officer was interested in beginning PHC activities.

Again, the training program began with the mission station staff at Turuk. However, a number of problems soon became evident. First, the decision-makers had specified that project activities were to be focussed on the remote rural areas. Because of the coastal location of Turuk, the HW's only contacted the remote village people approximately six to eight times a year for a few hours during MCH clinic patrols. Opportunities for sustained contact or frequent follow-up were difficult to arrange. Second, there was no clear signal from top level supervisors that work activities should be altered to include PHC. Frequently, this lack of top administrative leadership crippled efforts in WNB. Project investigators tried to follow the pattern that had been set in ENB but eventually changed the focus of training.

At the request of the Kandrian Medical Officer a workshop was held to introduce the PHC concept and approach to all of the Church and government health workers in the area. This workshop was attended by the District Coordinator and other government station officers. As a result of this experience, the District Coordinator contacted the PRICOR investigator requesting assistance in moving the area toward self-reliant development.

As with Bali Island, the Kandrian District Coordinator was faced with introducing the new WDC structure which was a new local government system based on the self-reliant PHC approach to community development. This goal of moving toward self-reliant development was shared by the district medical officer and the PRICOR project staff. Therefore it was decided to hold a

district level workshop similar to the one held in Nutuve. However, because of the size of the area and number of people involved, village participation was limited to Passismanua Gimi/Rauto, areas that have refused to legally join the province or establish a local government. A central village site, Liama, was selected to host the workshop. Village youth groups were hired to construct a meeting hall, cooking and sleeping houses, and toilets. Village people were asked to plant extra crops to provide sufficient food for all the participants. Arrangements were made with a commercial construction firm working in the area to assist in transportation of supplies and participants. Funding was requested and received from the WNB Provincial Government. Work schedules for the district officers and health workers were rearranged to permit participation in the four day event.

The objectives of the workshop were:

- 1) to introduce and clarify for government officers and village people the WDC structure,
- 2) to introduce and clarify for government officers and village people the role of government personnel, village committee members, and the village people themselves,
- 3) to develop individual village project plans,
- 4) to develop an overall Kandrian District Development Plan, and
- 5) to establish integrated involvement among all government departments, and between church and government organizations.

Once the workshop was announced requests came from National DPI, the North Solomon Provincial Nutritionist, and the Anga Nutrition Project in Morobe Province to be allowed to send observers to the workshop. The WNB provincial government also sent representatives. A "toksave" (notice) was broadcast over the provincial public radio announcing village groupings and dates for pre-workshop meetings as well as the workshop time itself.

One week prior to the workshop, the PRICOR training team arrived in Kandrian. They spent time working with the district government officers to finalize workshop arrangements. Five days were spent holding 15 village meetings throughout the area. The purpose of the workshop was explained to the village people, and they were asked to select representatives to attend the sessions. The village communities were requested to discuss their problems and strengths and to come to the workshop ready to think about community development. In a society like that found in PNG, it is important to give the people time to think about, question and prepare for decision-making. The pre-workshop meetings gave them time to anticipate, discuss, and reach a consensus about acceptable community actions.

The first day of the workshop was a pre-meeting training session held in Kandrian for the government and mission staff. The actual program for the day and each day of the workshop is outlined in the report included in Appendix E. The purpose of the first day training session was to give the professional staff a sense of their role in the wider scope of community development. The training focussed on practical exercises of some skills that would help them to do a better job working with the people to encourage self-reliant development. These included the linking game, community mapping, and the solution development matrix.

This staff training session was followed by the three day PHC/Community Development Workshop held at Liama. Ultimately, 135 participants were involved. In spite of the long, intensive sessions the participants worked hard and stayed involved throughout the days. Many question-and-answer sessions cleared up some long held misunderstandings and fostered a feeling

of cooperation. The community diagnosis mapping and solution development matrix created a common understanding and shared expectations of the development process. The action plan designed by the participants is seen in Table 18.

Because Passismanua Gimi/Rauto was a non-council area at the time of the workshop, the sessions could only be used to present ideas and practice working together with the people. However, the general concensus at the end of the workshop was for the area to form a local government council. Once the legal proceedings are completed, the implementation of the action plans can proceed. Table 19 summarizes the results of the Kandrian training program.

Table 18

Kandrian Development Plan

PLACE	NEEDS	LOCAL MANPOWER	LOCAL RESOURCES	TECHNICAL ADVISOR	OUTSIDE RESOURCES	TIME	COORDINATOR
Asengseng	Rebuild Village	1. Comm. Approval 2. Clear Brush 3. Build Houses	1. Wood, Vines, Thatching 2. Ground Rights	None Needed	None Needed	3 - 4 Months	-Luluai -Magistrate -WDC
	Aid Post	1. Ground Approval 2. Census 3. Carry Medicine	-Wood, Vines, Thatching	1. Inspector 2. Prov. Educ. Board	1. Teacher 2. Books, etc.	3 - 4 Months	-APO -WDC
	School	1. Ground Approval 2. Clear Brush	1. Wood, Vines Thatching 2. Timber	1. Inspector 2. Prov. Educ. Board	1. Teacher 2. Books, etc.	2 Years	-Mission -Council -WDC
Kaulon	Water Tank	1. Prepare Cement 2. Carry Stones 3. Carry Sand	1. Sand, Stones 2. Tools	Plumber	1. Cement 2. Tank Fittings	2 Months	5 Village Reps.
	Maintain Road	1. Cut Grass 2. Dig Drainage Ditches 3. Lay Stones	1. Stones 2. Tools, Knives	None Needed	1. 5 Wheelbarrows 2. Spades, Sarafs, Shovels, Picks	3 - 4 Weeks	5 Village Reps.
	Aid Post/ VHW	1. Build Post 2. Build House 3. Plant Garden	1. Wood, Vines Thatching 2. Land Rights	1. Doctor/Nurse 2. Local Trainee	1. Medicine 2. Lock Box 3. Health Dept. Approval	5 Months	Health Committee Chairman

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PLACE	NEEDS	LOCAL MANPOWER	LOCAL RESOURCES	TECHNICAL ADVISOR	OUTSIDE RESOURCES	TIME	COORDINATOR
Gimi	Water Tank	1. Build Foundation 2. Assist Plumber 3. Collect Material	1. Wood 2. Bamboo	Plumber	Tank Fittings	2 Months	WDC
	Feeder School	1. Build Teacher's House 2. Build Classroom	1. Land Rights 2. Bush Material	Teacher	1. Educ. Dept. Approval 2. Census	1 Year	-WDC -Educ. Inspector
Rauto	Water Supply	1. Clear Brush 2. Carry Materials 3. Carry Tank Parts	Bush Material Available	None Needed	1. Cement, Wire 2. Pipe, Guttering 3. Tap (Have Tank)	5 Months	Councillor
	School	1. Select and Clear Ground 2. Build Teacher's House & Toilet 3. Build School 4. Prepare Children	1. Land 2. Wood, Vines, Thatching, Other Bush Materials	1. Educational Inspector 2. District Coordinator	1. PEB Approval 2. Teacher, Books, Ruler, etc.	1 and a Half Years	Councillor
Palan	Bridge	1. Clear Approaches 2. Cut Trees, Vines	1. Trees 2. Vines	Engineer	1. Wire 2. Timber	6 Months	-A/S Kand. -Local Rep.
	Road	Clear Brush	Axe & Knives Available	1. Kiap 2. Engineer	1. Spade 2. Pick	1 Year	Local Rep.
	Health Center	1. Approve Land 2. Carry Supplies 3. Clear Brush	1. Land 2. Wood	1. Carpenter 2. Nurses 3. APO's	1. Gov't Approval 2. Timber 3. Money	2 Years	Health Dept.
	Water Tank	Carry All Tank Fittings	Catchment is Available	Health Inspector	1. Tank 2. Cement, etc.	3 Months	Health Inspector

PLACE	NEEDS	LOCAL MANPOWER	LOCAL RESOURCES	TECHNICAL ADVISOR	OUTSIDE RESOURCES	TIME	COORDINATOR
Central Passis-manua	Water Tank	Collect Stones and Gravel	1. Stones, Gravel 2. Money 3. Catchment	Inspector	1. Cement, Nails, Wire, Spade, Tank Kit 2. Money	6 Months	WDC Health Member
	Pig Pen	1. Land Approval 2. Clear Ground 3. Build Pen	1. Wood, Vines 2. Money 3. Food	None Needed	Wire, Iron Sheets Cement, Nails, Drums	3 Months	-DPI -WDC
	Drier	1. Land Approval 2. Local People to Carry Dirt, Stone, Wood	1. Money 2. Wood, Vines 3. Water, sand,	1. DPI 2. Business Dev. Officer	Timber, Drum, Iron Sheets, Cement Wire	1 Year	WDC
	Double Classroom	1. Land Approval 2. Local People to Carry Sand, Gravel, Water	1. Money 2. Gravel, Stones, Water	Local Govt. Council Foreman	Timber, Nails, Metal Sheets, Cement, Boarding, Paint	2 Years	Board of Management

Table 19

Kandrian Summary

OBJECTIVE	OUTPUTS	EFFECTS	DOCUMENTATION*
Community Relations	3 - Phase 1 Training Visits	20 - Village Visits Villagers Participation in Meetings and Workshops	Exhibit #2 Appendix A - WNB Signature List
Project Implementation	2 - Phase 1 Training Visits District Level Workshop APO PHC Workshop	Community Diagnosis Mapping Solution Development Matrix Linking Game 15 Pre-workshop Meetings	Exhibit #1: December 2-5, 2985 Report and Action Plan
Resource Knowledge and Access	2 - Phase 2 Training Visits District Level Workshops APO PHC Workshops	National DPI Participation Request Funding and Technical Assistance for District Workshops	Exhibit #2: Morris-Hughes Letter

OBJECTIVE	OUTPUTS	EFFECTS	DOCUMENTATION*
PHC Project Implementation	2 - Phase 2 Training Visits District Level Workshop	6 - Village Groupings Solution Development Matricies (Implementation Pending Local Government Formation)	Exhibit #1
Support to Reorient System Toward PHC	District Level Workshops Management Seminar Sponsored By CHS WHO - PHC Workshop	Provincial Funding for District Level Workshop Provincial Government Accepted Petition for Area to Join Province Provincial Staff Sent to District Workshops	

* Appendix E Unless Otherwise Noted.

Vunapope Workshop

Toward the end of the project the PRICOR investigators were asked to conduct a workshop for PHC workers from a number of provinces in PNG. Of the 27 participants, ten were PNG nationals working with various health systems. Seventeen were expatriots many of whom were volunteers involved in two year rotations in PNG. The diversity of the group and the lack of a broad base of experience in PHC created unanticipated problems. The participants' expectations tended to reflect the needs of their unique work situations. They lacked the common set of concerns that bound participants of earlier workshops together. These difficulties created by the absence of a common purpose were exacerbated by the minimal pre-workshop interaction with the participants. These preliminary difficulties were never overcome. The inability to capitalize on the potential of the situation did, however, reinforce the importance of the preliminary efforts that went with each of the previous workshops. The use of proven OR techniques was not enough. Efforts needed to be made to insure that participants understood the nature of the workshop and were ready for meaningful participation in it.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Examination of the results of the case studies suggests three general conclusions for the PRICOR project to determine the most effective way to train rural health workers in PNG.

1. The OR effort created a solution that effectively reached the goal and objectives of the training program.

In drawing the conclusion it is necessary to consider the results in light of each of the program objectives as well as its overall goal. The original request from the Church Health Secretary sought help to reorient the health delivery system toward PHC. Decision-makers identified a program to train rural health workers as the place to start the re-orientation. They set five objectives to increase skills and knowledge in community relations, problem identification, resource knowledge and access, and to choose physically, socially, and spiritually stable workers for the remote areas. The last objective was beyond the scope of the training program and was a recommendation to system decision-makers. The remaining objectives and the overall goal will be discussed individually.

Community Relations Skills

At each site the HC staff took steps to improve community relations with the villagers. At Nutuve and Muela, MCH patrols had been the only effort made by workers to go to the villages. Once training had begun the staff at each HC set up a village visitation schedule to establish an

ongoing pattern of interaction with the people in each village. At Muela these visits were the first time the workers had ever gone to some of the villages. The people's reactions to these visits indicated improving relations between themselves and the HC workers. The villagers worked on problem identification, the village big men participated in the multi-day workshops, and the people maintained their commitment to the developing PHC projects. On Bali Island the village visits led to a redefinition of the roles of the villagers and the health worker. The more sophisticated villagers at Bali sought to keep problem identification as a village responsibility and to use the HW as an outside resource. This redefining of roles was necessary for PHC to proceed in Bali. In Kandrian, community relation efforts focussed on villages in an area that refused to participate in the process of becoming part of WNB province. For the first time, the village big men explained why they refused to let the people join in the new government. Together big men and government officials worked on a solution to the problems and took the steps necessary for the villagers to legally adopt provincial government. Finally, the process of bringing provincial-level decision-makers to the remote areas was important. It helped establish the credibility of the system's workers and decision-makers. It helped the rural villager begin to participate in decision-making. It helped those in the system recognize the ability of the villager to be a part of the decision-making process and to see themselves as resources. It gave the rural health worker a new role too, a role of linking the villager to the system. Thus, at each site workers took specific actions to improve their relationship with the villagers. The response of the villagers suggests that their efforts were successful.

Problem Identification Skills

The development of problem identification skills was emphasized in Phase 1 and continued throughout the remainder of the training program. The program focussed on problem identification skills in three ways: 1) It taught workers and villagers problem identification techniques (brainstorming, community diagnosis mapping, Solution Development Matrix), 2) It modeled the use of problem identification skills in different contexts (village meetings and district-level workshops), and 3) It led to effective problem solutions which in turn served to reinforce the skills of the villager and the worker. At Muela, community diagnosis mapping and brainstorming were used to identify two or three problems that the workers and villagers then targeted for action. At the other sites there was a two step process of community diagnosis and brainstorming at the village level then followed by a district level workshop. At these workshops the SDM was used to set priorities among the problems identified in the villages and to take action on them. Examination of the effects of the program at each site indicates that the individual workers, big men, etc., learned effective problem identification skills. These data also demonstrate that the targets of the training program learned to use these skills within a multi-level planning context as well as at the village level.

Resource Knowledge and Access

Prior to the training program, the relationship between the rural station and provincial resources was primarily one of ordering supplies for the health center. After Phase 1, the workers and villagers recognized the part external expertise and resources play in problem solution. However, their preferred way of accessing these resources was to ask the PRICOR investigator to make the initial contact. Phase 2, however, brought workers, villagers, and political and technical resource people together. In creating the solution development matrix, the resource people came to a clearer understanding of the problems of the remote areas. The villagers and workers came to understand the role of the resource people and the procedures necessary to access resources. As the summary charts and documents in the Appendices for Nutuve, Bali and Kandrian suggest, after the district level workshops (Phase 2) the workers began dealing directly with the provincial resource people instead of asking the PRICOR investigator for help.

The extreme isolation of Muela led to a different result in terms of resource access. Decisions were made to lessen the dependence on outside resources. In each project: the village health workers, the seed multiplication gardens, the cooking and sewing groups for the women, even the prayer groups, there was an attempt by the villagers to "do things for themselves." Therefore, in the Muela area requests for outside resources focussed on seeking help to increase independence skills, not for requests materials or expertise for a specific project.

Thus, at each site workers began to access outside resources far beyond seeking supplies for the health center. However, the impact of the accessing process was quite different for the various sites. At most sites it drew people, workers and resources closer together. At Muela, it sought to create greater independence.

PHC Project

The summary charts at the end of each case study illustrate the many PHC projects initiated as a result of the PRICOR project. Some of these projects included establishing an agricultural base camp with a didiman, building water tanks, planting experimental gardens, training VHWs and assisting in introducing a performance appraisal system to the church and provincial health delivery systems in ENB. The PHC projects targeted a wide range of development problems related to health, education, social and spiritual needs. The successful completion of these PHC projects indicates that the workers did acquire skills in PHC implementations. There are, of course, PHC projects for which the original plan was not successful. In a way, these projects also suggest that implementation skills have been learned. In each case, workers and villagers have modified their actions and worked out a new solution. In no case have they given up because they did not have immediate success.

Reorienting the System

The four case studies suggest significant progress toward reaching the program's goal of reorienting the system toward primary health care. The number of people in each province who participated in at least one multi-day training workshop was in the hundreds. (See Appendix A - Tables #21 and #22)

In ENB, provincial level decision-makers in the health system, the rural health staff, and the village big men worked together in an ongoing set of these sessions. In WNB, the process of ongoing interaction, planning and evaluation has begun. In each case, the participants represented an entire provincial system, and together they began the process of reorienting that system toward PHC.

By locating the training sessions in the rural villages, the solution increased the likelihood of community participation. In order for the remote villagers to become part of the decision-making process it was important that they participate from the security of their "own turf." Thus the village "location" was crucial in gaining the participation and the support of the people.

Effective reorientation of the system toward PHC also required the financial and political support of top level decision-makers. In ENB, the response of the CHS and the Provincial Health Service (PHS) was particularly significant. Each used a portion of the budget to support the project. The CHS committed personnel for the training team. The PHS used its influence with outside funders to gain additional financial support for the project. Each system encouraged and often required participation of the workers. Both systems introduced the performance appraisal program which defined PHC expectations of the workers and compensated them for meeting the expectations. Finally the system supported the implementation of the individual PHC projects. The negotiations needed to implement the PHC project represented a realistic give and take between the rural villagers, the workers, and the system. The system did not automatically support any request nor

did it always function without problems or hesitancy. The system did provide realistic support. It worked with those in remote areas to negotiate solutions and implement them.

In WNB system, support came primarily from the district and provincial level government with additional support from the CHS. Although Bali and Kandrian functioned independently, it was the district level political and financial support that was crucial to implementation at both sites in WNB. Once the project was established the provincial government provided financial support for the district level workshops. Provincial level personnel also participated in the district level workshop in Kandrian.

Thus, the data suggest that the health worker training program did begin the process of reorienting the system toward PHC. It encouraged village level participation. It helped villagers, workers, middle level decision-makers and advisors begin new ways of planning together. It gained important political and financial support for the reorientation process.

2. The flexibility of the OR approach increased the probability of successful implementation.

Of particular importance in the successful implementation of the PRICOR project in PNG was the flexibility of the OR approach. The characteristic phases of OR: problem analysis, solution development, and solution validation plus the ongoing sensitivity analysis were strategic in: 1) expanding the program target to include the entire health delivery system, 2) identifying additional operational problems, and 3) allowing for site-specific adjustments in the training program.

Target expansion from the rural health worker to the entire system was a key to successful implementation. It laid the ground work for system-wide participation in the district level workshops and continuing system support. Although the target expansion reflected an insight of ENB decision-makers, it helped prepare the training team for adjustments that needed to be made at the WNB sites.

It was the flexibility of the OR approach that allowed for the area action plan at Nutuve and the village-based plans at Muela. It accommodated the strong leadership roles played by the health secretaries in ENB and the same role to be played by non-health system district level managers in WNB. Flexibility characterized the implementation of the training program at each site. Yet at each site: the program took place in the villages, targeted the same objectives, and used the same general approach and techniques.

3. The OR approach made possible the transfer of self-reliant development skills.

The use of the OR approach and techniques throughout the project made possible the transfer of important self-reliant development skills and system changes. The PRICOR project transferred the skills to plan and to implement within a village setting and within multi-level decision-making situations. It began changing the roles of the decision-makers, the workers, and the villagers. It became a process instead of a project. It provided the tools for reaching common understandings, definitions, commitments. It did not solve all of the problems or even most of the problems.

It did transfer problem solving skills and help workers, villagers, and decision-makers learn to create situations in which they could use their skills together.

This technology transfer is perhaps the most significant effect of the PRICOR project. This effect was not just a matter of teaching techniques. To achieve a technology transfer the investigator needed to adjust the technique to the participants and prepare them to use it within a specific situation. In those situations where these dimensions come together, the OR approach led to common expectations, effective problem analysis and feasible solutions. In those situations where the target-based flexibility or strong participant preparation were missing, the techniques were less effective. Thus, the ability of the OR approach to transfer self-reliant development skills was a significant result of the project, but the impact of other project characteristics on bringing about technology transfer must also be taken into account.

Recommendations

As part of the conclusion of the PRICOR project in PNG, a meeting was held with the administrators and decision-makers of the ENB Provincial Government and Church Health Service delivery systems. Included in the meeting were the Archbishop of Rabaul, the ENB Assistant Secretary of Health, the Church Health Secretary, and the members of the health extension team. The purpose of the meeting was to review the progress of the Rural Health Worker Training Project and make the following recommendations:

1. The training program should continue to be reinforced at the four original sites and expanded to other sites in each province.

Prior to the exit of the PRICOR investigator from PNG, the health extension team drew up their continuing training visits schedule for the next four months. Consideration was given to: 1) the progress and needs at the existing training sites, 2) expanding the program to at least two additional sites (Ruansapna and Aona), and 3) giving a balanced training orientation to the new team staff. In December 1985, one of the health workers from Nutuve was sent by the CHS to a two month community development course in the capital of PNG, Port Moresby. Plans were made for him to visit other health centers to share his experience with other health workers as the program expands.

2. The Church Health Service should train additional staff to work with the health extension team.

Since the beginning of the PRICOR project implementation in PNG, two full-time workers had been assigned to form the health extension team. These two persons gained experience in the use of OR techniques and were independently planning and coordinating workshops by the end of the project. In addition, the CHS created three new positions on the health extension team. These were filled by a nurse and an APO both with the rural HC experience and a vocational teacher skilled in community work. Their training would emphasize on-the-job practice with the original team members.

Because of the extreme isolation of the Muela area, two nationals were hired to live in the area and provide development assistance to the surrounding villages. Prior to placement, one was given a special course in addressing community needs, and the other had vocational school training.

3. The Archdiocese of Rabaul should use the OR approach and techniques in training its church staff to do community development work in the rural areas.

Faced with declining staff and increasing demands, the Archdiocese is formulating a new approach to meet the wide range of spiritual, educational, health and social needs of the people. The strategy would focus on increasing the participation of the people. The extension team that worked with the PRICOR investigator throughout the project was recommended to participate in the study for the new pastoral program. As a consequence, one of the team members was assigned to the five person committee to design a proposal for the Archdiocese to consider. In addition, the Archbishop requested that a summary of the PRICOR project be sent out to each parish as an example of a community planning and implementation process.

4. The Provincial Health Service should continue implementing and expanding the performance appraisal system that emphasizes the PHC component of health workers' responsibilities.

The implementation of performance appraisal shows every indication of being completely integrated into the Department of Health management system and into other provincial government departments as well. The Hanns Seidel Foundation has committed funds and personnel to complete the program.

5. The Provincial Health Service should reinforce and expand the community development network with other provincial departments, especially, Education, Primary industry, and communications.

During the week following the departure of the PRICOR investigator, an inter-departmental meeting to investigate integration of efforts to serve the rural community was scheduled. The outcome of this meeting is not known at this time.

6. The Church Health Service and the Provincial Health Service should continue their joint effort to plan and implement the health worker training and other projects directed toward reorienting the health delivery systems toward primary health care.

The Health Secretaries of the Church and Provincial Health Systems establish a strong, positive relationship during the planning and implementation of the PRICOR project. There is every reason to believe that they will continue to work together to reorient the health delivery system toward primary health care.

Additional Research

The recommendations for further research are based on the immediate results of the PRICOR project as well as interactions with all levels of the health delivery system in PNG.

1. Consideration should be given to provide ongoing consultation for continuing and expansion of the health worker training program.

The results of the project demonstrated the importance of taking advantage of the flexibility of the OR approach and adapting the projects to site specific conditions. Both continuation of the project of the original sites and expansion into new areas could benefit from planners familiar with PNG and yet working from a broader grasp of the use of OR in developing countries. Timely consultation could provide the insight and reinforcement necessary for systematic and effective project expansion.

2. The long term result of the PRICOR project should be evaluated in two to three years.

A major problem in the implementation of PHC projects in developing countries is the ability of the host country to sustain implementation once the external funding and technical experts are no longer involved in the day to day operation of the program. Despite the strong positive outcomes of the PRICOR project, its long term maintenance is not known. Therefore, evaluation two to three years from now would provide conclusive evidence concerning the effectiveness of the OR approach to lead to solutions which are not only feasible in the short term, but also sustainable in the long term.

3. Consideration should be given to providing assistance in other projects focusing on reorienting the health delivery system toward PHC.

A crucial factor that underlies this recommendation is the readiness of provincial and national government systems for PHC initiations. East and West New Britain demonstrated this potential. A structural base for

addressing the needs of the people has been built on the national and provincial levels. Provincial governments are becoming more autonomous and self-reliant. However, they are also faced with decreasing financial assistance and an expanding population with growing needs. The National government, too, is facing a similar situation. Both provincial and national level health departments are looking for a way to handle these problems. PHC has been accepted as the most viable goal. The National Department of Health as well as many provincial health departments, have established PHC offices yet they need assistance in systematic problem identification and solution development.

PNG is but ten years old. It is politically stable and has created the government structures to move effectively toward development. Its population is small and its problems are relatively uncomplicated by the political and historical burdens of "older" third world countries. For these reasons PNG is open to systematic efforts that target self-reliant development. Its characteristics suggest that the potential impact of PHC can achieve maximum effectiveness.

ADMINISTRATION

The administrative staff in the PRICOR-PNG project included six people. These were: Dr. Charles B. Hamilton, Dr. Sherilynn F. Spear, Ms. Ellen Vor der Bruegge, Sr. Helmtrude Tewes, MSC, Sr. Rosalind Cairns, MSC, and Sr. Mary Drum, MSC.

Charles B. Hamilton, Dr.P.H. served as the executive director of the project and administrator of the grant. His knowledge of community organization, health planning, and management allowed him to offer additional expertise to the project.

Sherilynn F. Spear, Ph.D. was the co-principal investigator and guided the research dimension of the project. Her background in medical sociology and social psychology, research methods and statistics, and applied research experience in the areas of needs assessment and program evaluation were useful in project implementation. Dr. Spear's three site visits to PNG during the project were especially important to achieve the full research potential of the OR study.

Ellen Vor der Bruegge, MPH was the other co-principal investigator and in-country project director. Her role was to serve as the link between the PNG program site and the U.S. based research staff. Her responsibilities included conducting the initial planning sessions and workshops, supervising the solution validation phase, and maintaining the communication and reporting on the project progress.

Sr. Helmtrude Tewes, MSC, the Church Health Secretary of ENB, served as the co-principal investigator from the host country. Her training, experience, and dedication to serving the health needs of the people in PNG

made her an invaluable contributor to the project. Sr. Helmtrude was the driving force behind the decision to expand the ENB health delivery system's approach to include PHC, and she offered sustaining support and advice throughout the project implementation.

Sr. Rosalind Cairns, MSC, and Sr. Mary Drum, MSC, were two full-time staff members assigned by the Archdiocese of Rabaul to the health extension effort. Sr. Rosalind is a trained educator who has had years of experience working with rural communities, is fluent in the language, and knowledgeable of the culture. Sr. Mary is a nutrition/food technologist who has worked in PNG on national level projects to develop alternate food sources and preservation techniques. Both of these staff members were involved in the OR alternative solution generation process and the training program implementation. Their assistance enhanced the development of the PHC program to include social and economic development. Sr. Rosalind and Sr. Mary are now the nucleus of a five-person team supported by the Archdiocese to sustain and expand the work begun by the PRICOR project.

Financing for the PNG Rural Health Worker Training Project came from a variety of sources. These are broken out by purpose, source, and amount in Table 20. Because the in-country investigator was not directly involved in handling the money the totals listed are approximates.

Table 20
Estimated Total Costs

PURPOSE	SOURCE	AMOUNT [*]
Training Health Workers in Papua New Guinea	-PRICOR	\$ 72,196
	-Archdiocese of Rabaul	6,000
	-ENB Povincial Government	6,520
Vatnabara PHC Training Workshop	-World Health Organization -Hanns Seidel Foundation	10,000
Nutuve District Workshop	-World Health Organization	10,000
Nutuve Evaluation Workshop	-Hanns Seidel Foundation	8,000
Bali District Workshop	-WNB Provincial Government	1,000
Kandrian District Workshop	-WNB Provincial Government	2,500
Vunapope Workshop	-PRICOR -Internation Human Assistance Programs	14,300 <u>10,000</u>
	TOTAL	\$140,516

* Approximate Amounts

APPENDIX A

Health Secretary's Proposal

ENB Participant Signature Lists

WNB Participant Signature Lists

THE PRIMARY HEALTH CARE COMPONENT OF A TEAM APPROACH TO EXTENSION
WORK IN ^{East} NEW BRITAIN.

Project Background

Recognizing that health is such a basic right for every individual, the ALMA-ATA Declaration, 1978 endorsed the WHO global goal of "Health for all by the Year 2000". In order to achieve this goal the need to concentrate on Primary Health Care (PHC) based on individuals and families in the community was emphasized. The necessary components and minimum requirements of such care were listed as follows:

1. Health education about common health problems and methods of control and prevention.
2. Promotion of food and proper nutrition.
3. Provision of adequate supply of safe water.
4. Provision of basic sanitation.
5. Maternal and child care, including family planning.
6. Immunization against major infectious diseases.
7. Prevention and control of locally endemic diseases.
8. Treatment of common illnesses and injuries.
9. Adequate supply of essential drugs.

Obviously an effective health extension service is crucial if all the population is to have access to the minimum requirements of PHC. This extension must devote attention to all the components of PHC.

The Health Service of St. Mary's Hospital, Vunapope has always recognized the importance of Health Extension work and has in the past devoted considerable resources to carrying out such work. The focus of such work has been the patrols to health centres and aid posts to conduct maternal and child health (MCH) clinics. While work other than MCH has been done on these clinics e.g. immunisation, treatment of common illnesses, control of endemic diseases, assistance in family planning, supply of drugs and some health education, the main section of the population contacted through such work has been mothers, children and those who are sick. For some time now it has been apparent that in order that all the necessary areas of PHC receive attention, the total community needs to be involved.

Seeing that the goal of providing health for all by the year 2000 is to permit people to lead a socially and economically productive life, it would seem desirable that as far as possible health personnel do not work in isolation but rather together with others responsible for leadership and development in the village community such as didimen, teachers, catechists and pastors. Such an approach should prove more integrated and ensure that care of the total person becomes the focus of extension work rather than one particular need. For just as we cannot afford to focus on some components of PHC to the neglect of others, similarly we cannot in our service of people attend simply to the personal and not the social, to the physical and not the emotional, to the material and not the spiritual needs of these people or vice versa.

Project Outline and Objectives:

Vunapope Mission proposes to introduce an extension team approach commencing in mid 1984 and running through 1985/1986.

The team will include experienced technical personnel from the fields of health, education, nutrition, food technology and family planning together with national counterpart staff. All the technical personnel are qualified in their respective fields with a number of years of experience of which at least three years has been spent working in Papua New Guinea. Their work would involve patrols to the most remote rural areas in East New Britain where the mission has health centres, aid posts, and schools. The object of these patrols would be to work with the nurses, aid post orderlies, teachers and catechists to support them in the work they are doing. Such support would be given by:

1. Establishing regular personal contact with these often isolated workers.
2. Sharing in the concerns and difficulties, hopes and joys of these workers in their respective communities and through this appreciation of their specific situation, working side by side with them:
 - * to help reinforce the training they have received
 - * to assist in finding the most effective methods of implementing this training for the good of the people they serve
 - * to encourage them to persevere in the work they are doing and work with them to overcome difficulties which have arisen
3. Expanding and developing the initial training of these workers through in-services in their professional fields.

Further because the team will spend a time with the villagers in each area, possibly two or three weeks, contact will be made with the total community not just mothers and children.

Funding for the PHC Component of the Project

While it is the intention of the mission to initiate this project, the assistance of the Provincial Government is sought in funding those aspects of the project pertaining to PHC as the mission will bear the responsibility of securing resources for the remainder of the team. All components of primary health care will be catered for in the following manner:

1. The leader of the health extension component of the program, hereafter referred to as team leader, will be a volunteer with three years previous rural experience in Papua New Guinea and a community health Diploma. It will be the responsibility of the team leader to see to it that all the nine essential elements of PHC receive adequate attention, adapting the emphasis of the program from area to area according to the need of the specific communities.
2. It is recognized that in a number of the remote rural areas in particular, malnutrition is a serious problem. A Food Technologist with four years previous experience in the country will take responsibility for the promotion of food and proper nutrition. This will involve:
 - (a) the growing of food and where necessary the introduction of a wider variety of foods and better varieties of crops in terms of yield and resistance to disease where these are available in the country
 - (b) Best utilization of available foods through (i) emphasis on nutritious and hygienic methods of food preparation and (ii) training in techniques of food storage and preservation.
 - (c) training in nutrition, the need for a balanced diet for all segments of the population, via demonstration and education. Special emphasis will be placed on introducing a wide variety of "weaning" foods in sufficient quantity to supplement breast feeding from the age of four months onwards to eliminate the frequent weight loss and gradual decline in health which occurs at present with so many of these infants at this age.

.....cont'd....

3. Trained ovulation method teachers will provide assistance and training in family planning.
4. National counterpart staff will be identified from staff already employed by the Mission Health Service.

Budget

Funding is sought from the Provincial Government for the following aspects of the project:

1. Wages for the team leader.....K3,510/annum
2. Travel expense for team leader.....K1,010/annum
(to fund two trips each year to the following areas- Uvol (K500), Nutuve (K180) Muela (K160) and Gura (K200).)
3. The supply of gardening tools and seeds.....K1000/annum
4. Materials for teaching aidsK1000/annum
(e.g. charts, posters, photos, written materials, simple food preservation utensils/equipment)

This amount to total financial assistance of K6,520 per annum for the duration of the project.

Sr. Helmtrude

Sister Helmtrude Toves
Health Secretary.

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ENB Participant Signature Lists

Table 21
East New Britain Training Participants*

NUMBER	PERSONNEL
3	Provincial Minister
1	First Assistant Secretary - ENB
1	Church Health Secretary
2	Provincial Assistant Secretary - Health (PHO)
15	Health Administrative Officer
11	Government Officer - Outside Health Dept.
2	School Nursing Administrator
6	Health Extension Officer (HEO)
20	Registered Nurse
4	Nurse Aid
19	Aid Post Orderly
130	Village Leader
40	Village Community
16	Other Development Work Personnel
270	TOTAL

* Persons included in training sessions at Vatnabara Nutuve, Muela, or Vunapope. Participant signature lists follow.

PLANNING PHC TRAINING WORKSHOP

EXHIBIT #1



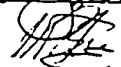

Participants

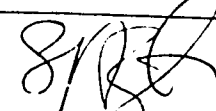




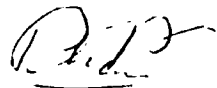

Title/Role in Health Care System

Signature

Participants	Title/Role in Health Care System	Signature
SR. ROSALIND CAIRNS, MSc.	EDUCATION	Dr. Rosalind Cairns, MSc
SR. M. Astrid M.S.C.	TUTOR	Dr. M. Astrid M.S.C.
DR. JOHN MILLAR	ASSISTANT SECRETARY HEALTH	John Millar
PONAU. SALIAN.	HEO.	Ponau Salian
Dr. Marceline	TB/Leprosy - Control	Dr. Marceline MSc
Peter Morris	MALE NURSE	Peter Morris
AGATHA RANGAMAT	Post Basic Paediatric Student	Agatha Rangamat
PONDALA PATTI	SPECIAL PROJECT OFFICER (HEO)	Pondala Patti
Dr. Louis Dolos	C. S. D. M. A. (C.F.E.M)	Dr. Louis Dolos
Dr. AGNEIS, MSc.	PRINCIPAL S. D. N. Ipe	Dr. Agneis MSc
SR. MONA EMASANI	PROVINCIAL COMMUNITY MATERN	Monasani
Dr. GERTRUD KÖSTERS MSc	Church Health Secretary IN E.A	Dr. Gertrud Kösters MSc
Dr. Marilyn Babe, M.S.C	Nurse	Dr. Marilyn Babe, M.S.C
Lisba Melachon	Co-ordinator. C.F.E.M	Lisba Melachon

PLANNING PHC TRAINING WORKSHOP

Participants	Title/Role in Health Care System	Signature
EMANUEL KOTIK	P.H.E.O. Health H.A. Rab.	
Dr. MARY DRUM	Food Technologist	
N. BOSKIE TANOS	DENTAL THERAPIST. (CHAIRMAN R.H.P. COMMITTEE)	
ELLEN VOR DER BRUEGGE	HEALTH PLANNER	Ellen Vor der Bruegge
Sr. Helmutrude Tewes	Health Secretary E.W.B.	Sr. Helmutrude
S/Hedwig Malana	S/NURS	

NAME	ADDRESS POSITION	EXHIBIT #2 SIGNATURE
Stewart Forsyth	Team Leader HRD	
Sr. Helmutwude Jensen	Health Secretary / Matron	Sr. Helmutwude
Melvin Bolton	Act Sec (Health)	
Ernest Keck	T.H.E.O. Rob.	
Peter Batan	DHI (Health, Rob)	
W BOSKI TANOS	DENTAL SECTION - HEALTH RITBAK.	
Joe Luke	TB/Leptosy Control	Joe Luke
PANDITA POKAI	SPECIAL PROJECT OFFICER	
Pandita Lansell	Provincial Midwife (Town Clinic)	Pandita Lansell
Kate Amerool	Community Midwife (Vunape)	
Skemi Spear	Midwife	Skemi Spear
ELLEN VORDER BRUNGE	BHC WORKER	Ellen Vorder Brunge

BHC PLANNING WORKSHOP
 VUNAPE
 FEB. 3, 1985

PRIMARY HEALTH CARE TRAINING WORKSHOP

Vatnabara - Duke of Yorks
February 3-9, 1985

EXHIBIT #3

Participants

Title/Role in Health Care System

Signature

JAMES (J)	Practitioner in Health	<i>[Signature]</i>
MARGARET W.	Practitioner	<i>[Signature]</i>
VITUS AMUGAR	REGISTERED PEDIATRIC NURSE	<i>[Signature]</i>
PETER ILIUA	REGISTERED STAFF NURSE (MUELAH)	<i>[Signature]</i>
ARNOLD VANINARA	REGISTERED STAFF NURSE (ACNA MICENTRE)	<i>[Signature]</i>
Sr. Veronica Ruffini RPN	HN Nurse Community H Section	<i>[Signature]</i>
BASILIO TOUVE	STAFF NURSE UVAL H CENTRE	<i>[Signature]</i>
Pauline LANSDALL	Prov Nutritionist Rabaul	<i>[Signature]</i>
LUBA TORIA	STAFF NURSE RAUNSEPN A	<i>[Signature]</i>
Mary I...	Practitioner (Maternity Centre)	<i>[Signature]</i>
Sr ROSALIND CAIRNS, NSC	EDUCATOR	<i>[Signature]</i>
MARTHA CIBIA	STAFF NURSE PAVARATAVA	<i>[Signature]</i>
Sr Immaculate	Practitioner (Muehuma)	<i>[Signature]</i>

PRIMARY HEALTH CARE TRAINING WORKSHOP

Vatnabara - Duke of Yorks
February 3-9, 1985

Participants	Title/Role in Health Care System	Signature
HAROLD KAVCAI	HEALTH INSPECTOR (ESICOP)	
Joe hite	TB/Leprosy Officer	Joe
Frank MELKI	HEO KERECAK	Frank
CLEMENT KILEPAK	HEO	Clement
ADDIE W. PELIS	ST	Addie
RONALD TOPUPUL	HEALTH EDUCATION - RAESAU	Ronald
ALois TAMARU	MALE NURSE	Alois
N. BEANIE TANGS	DENTAL HEALTH SERVICES	N. Beanie
W. DORRUS	DENT. SERVICES (RAESAU)	W. Dorrus
Frank MELKI	HEO KERECAK	Frank
Frank MELKI	Incharge - BWN Clinic Rabaul	Frank
NORMA - RORABA.	Incharge - Family Planning - Rabaul - Kwanta	Norma
RADPHIL TOCANIT	HEO KERECAK - DUY	Radphil

PRIMARY HEALTH CARE TRAINING WORKSHOP

Vatnabara - Duke of Yorks
February 3-9, 1985

Participants	Title/Role in Health Care System	Signature
Peter Miralis	M.D. (Nurse H/C)	
E. Tekiak	PH.C. - General	
Peter Batarzi	PHI H	
Patrick Snimisey	Asst. TADIPDI H/C	
Pondra Pokhi	Specialist Medical Officer	
Malcolm Bolton	Asst Sec (Health)	
Ewen Gordon Bruce	G.D. - Nurse	
Renee March	Nurse S.D. WARRICK	
Gertrude Jikei	Nurse THE VAINPENT	
FR. LAURIE CHASTIE	Catholic Parish Priest	
GABRIEL ISHAKANI	Seminar Coordinator H/C	
Sr. Helmutrude Towes	Nurse / Health Secretary	
SAKIAS LULU	HEC. Nurse H/C	
HONA EMILIANU	CHNS MATRON	

NUTUVE PHC DISTRICT WORKSHOP.

APRIL 22-25th.

EXHIBIT #4

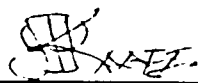
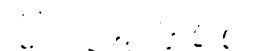
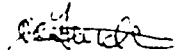
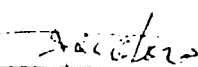

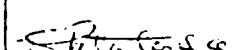


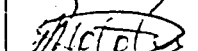
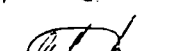


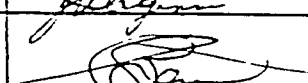
NUMBERS	NAMES	POSITION	ADDRESSES
1.	PONDALH POKHI	H. E. OFFICER	HEMUA RANAU
2.	CASPAR PLEK	EXTENSION DPJ	D.P. MELLA
3.	POMALEU LANGISAN	BUSINESS DEVELOPMENT OFFICER	COMMOSE - PALMALMAL
4.	STANIS MALAI	FORESTRY OFFICER	FOREST DIVISION POMIO
5.	ALLAN RUKIE	BUSINESS DEVELOPMENT OFFICER	OFFICE - PALMALMAL
6.	CAMILLUS PALO	GOVT LIAISON OFF.	COMM. SERVICES - PALMALMAL
7.	KEPAS PINIAU	ASS. STANT. CO-ORDINATOR INLAND POMIO C.G.	SUB-DISTRICT OFFICE - POMIO
8.	HAROLD KACON.	H.F.O	POMIO HEALTH CENTRE
9.	MALOLM BOLTON	Age Sex Clerk	HEALTH BABAU
10.	Sr. Helm Trude Teves	Health Secretary	P.O. Kokopo Box 58 E.K.B.
11.	FR. MEINHARD WITWER	PARIISH PRIEST	C.M. POMIO / P.O. POMIO - E.K.B.
12.	KATE OKHEKO	P.O. Box 58 KUMBO	MIXED RACIALIST.
13.	Sr. KESKIMO GRIANIS, M.C.	EDUCATION	P.O. Box 77 KUMBO UNB
14.	ELLEN VOR DER BRUEGGE	HEALTH WORKER	P.O. Box 58 KOKOPO E.K.B.
15.	GIORRE SREATHI	NURSE AND NUTUVE NATIVE HEALTHCARE	POMIO
16.	Peter Morris	Male Nurse	BOX 58 KOKOPO E.K.B.
17.	Joseph - SEKEN	Community Youth Coordinator	INLAND POMIO Comm-Govt
18.	HOSEA TURMANOAT	Dept of ENVIS FAS	P.O. Box 714, PALMALMAL
19.	ALAN PAIA	DIST. OFFICER, PALMALMAL	P.M.B. RANAU
20.	JOSEPH WIMMO	A.P.O	INLAND POMIO
21.	CAMILLUS TATI	H/M NUTUVE CS	NUTUVE CS - P.O. POMIO
22.	MATHEN KOMPULIN	A.P.O	MILE AB POST
23.	PETER ILINA	MALE NURSE MUEZA	H/C MUEZA.
24.	HERMAN MELISIRE	A.P.O	TUKE APOST.
25.	ALPHONZO	P.P.O	Uvea Health Centre.
26.	JOHN MABUENG.	DISTRICT OFFICER	PALMALMAL.
27.	KEPAS NIKO KANUI	LAKIRI VILLAGE	LAKIRI NUTUVE
28.	KAPALI MANEMLU	SI-SIANGEL VILLAGE	SIANGEL NUTUVE
29.	MULIE - LUI	PINKURIA	PINKURIA NUTUVE
30.	LIORÉ DE LONDO	KULA	KULA NUTUVE H/C
31.	KASRI KORI	PARAKIMAN	PARAKIMAN " "
32.	KENTE MAENA	LALIKA	LALIKA " "
33.	GABRIEL TORIA	PINKURIA	PINKURIA " "
34.	MENSONIL GI	KELEI	KELEI " "
35.	LOPE TELE	PATURU	PATURU " "
36.	TOMAKUKERE PANULI	LAKIRI	LAKIRI " "

77	NAMES	POSITION	ADDRESS
	Patrick Sagima	PROVINCIAL MINISTER	MIKEVILLE - ULAMONA CATHOLIC MISSION PARISH
36	LINDUPE LUKI	NATIVE ^{MOIVE} MISSION	MIUVE H/C
37	TEIO KAPARE	PENOI	" "
40	VIKLOPUS	PINOVE MIUOU	" "
41	NAHU SULA	ORA	" "
42	KARAKU PENGKU	MOKOU 'MONGO	" "
43	AVE-RELO	PIOU	" "
44	MALIANA TALIKO	PAIKE BIKI	" "
45	UBULI LIKU	BIKITHI	" "
46	FIDELIS RUTE	KOTIKET	MIUVE H/C
47	Sr Mary Dina	KKO Team Member - ^{Minister} Food	Po Box 97 KOKOPO, ENBP.
48	PATRICK PULKALE	KATIKIST (CATECHIST)	P.C.M. ROMIO
49	PATRICK MIKSEI	KATEKISI	MIUVE C. MISSION
50	KAVARE	BIZIHI	MIUVE "
51	PALIVE	SELOI	" "
52	SUUC	PARAVELE	" "
53	M. YS KOSA	ROMIO	" "
54	JOHN GOLPAK	ROMIO	CFLC
55	SAINA	PATURU	CFLC
56	STELION WINDUO	SULA	S/L

UNIT 2 - - RPO PRIMARY HEALTH CARE TRAINING WORKSHOP/EVALUATION

EXHIBIT #5

NOTUS HEALTH CENTER - ISLAND PONEO
OCTOBER 23 - NOVEMBER 1, 1983

PRINT NAME	TRAINING POST IN HEALTH CARE SYSTEM	SIGNATURE
JOHN	PUL PUL AID POST.	
PAUL TALKALJE	MALMUK AID POST.	
JOE TAINIG	KAU'UA AID POST	
JOE CATER	KAITEN AID POST	
HENRY MIALEM	AONA SUB HEALTH CENTRE	
SIMON, PITALO'EA	MALMUK AID POST	
Peter. MAUC	MATONG AID POST	
MICHAEL. H	POMIO HEALTH CENTRE	
PACIL. METELLI	SPANIGO AID POST	
ROPHAZ TOVIKAD	MILLUM AID POST	
ANDREW LOKEMANE	KAORO AID POST	
JONATHAN WAGIRA	HOIYA - S.D.A. MISSION AID POST	
STAVEN BALIKAT	LAU AID POST	

NOTICE - - APO PRIMARY HEALTH CARE TRAINING WORKSHOP/EVALUATION

NOTUVE HEALTH CENTER - INLAND FOMEO
OCTOBER 28 - NOVEMBER 1, 1983

PRINT NAME	TITLE ROLE IN HEALTH CARE SYSTEM	SIGNATURE
HERMAN MELISIRE	TRUCK AND POST	<i>[Signature]</i>
MATHEW KONAPULIA	A.P.O. MILE MID-POST	<i>[Signature]</i>
Pauline LANDALL	Prov Nutritionist / RABAU	Pauline Landall
SHERIE SPEAR	PRICOR INS.A	<i>[Signature]</i>
PONAWEN POKAI	HEALTH OFFICE FOMEO	<i>[Signature]</i>
HAROLD KAUON	HEALTH EXTENSION OFFICER	HC
PATRICK MALAMOT	HEALTH INSPECTOR	<i>[Signature]</i>
LAWRENCE TORRES	MANAGEMENT TRAINER (HSA) (PERFORMANCE APPRAISAL)	<i>[Signature]</i>
Shannon Hunter	E.N.B. Council of Women P.H.C. Co-ordinator	<i>[Signature]</i>
S. Rosalind Gains, MSc.	Educ.	S. Rosalind Gains, MSc.
MALCOLM BOLTON	Asst. Sec. - M.L.	<i>[Signature]</i>
KENNETH IKILIKI	P.L. MINISTER	<i>[Signature]</i>
PATRICK SAGIMA	MINISTER FOR FOREST	<i>[Signature]</i>

NUTVE - - APO PRIMARY HEALTH CARE TRAINING WORKSHOP/EVALUATION

NUTVE HEALTH CENTER - INLAND PONIO
OCTOBER 29 - NOVEMBER 1, 1985

PRINT NAME	TITLE/ROLE IN HEALTH CARE SYSTEM	SIGNATURE
SR MARY DRUM, NISC	FOOD TECHNOLOGIST - AGRICULTURE DIVISION	<i>[Signature]</i>
Nicholas Koropumantu	A.P.O. Lakeri	<i>[Signature]</i>
G. PUSTER	<i>[Faint Title]</i>	<i>[Signature]</i>
Ellen V. R. Doe Bussac	HEALTH EDUCATION - ...	<i>[Signature]</i>
FR. MEINHARD WITTMER	PARISH ...	<i>[Signature]</i>
CAVILLUS TATI	HM NUTVE CISCHOOL	<i>[Signature]</i>
AUGUSTINE PANG	SIC NUTVE HEALTH CENTRE	<i>[Signature]</i>
PETER ...	<i>[Faint Title]</i>	<i>[Signature]</i>
Training Specialist	<i>[Faint Title]</i>	<i>[Signature]</i>

WNB Participant Signature Lists

Table 22
West New Britain Training Participants*

NUMBER	PERSONNEL
1	Provincial Minister
1	Church Health Secretary
3	District Coordinator
2	Provincial Administrative Personnel
8	District Officer
3	Health Extension Officer (HEO)
12	Registered Nurse
10	Nurse Aid
34	Aid Post Orderlies (APO)
175	Village Leader
75	Village Community
45	Other Development Work Personnel
3	Observer from Outside WNB
372	TOTAL

* Persons included in training sessions at Bali/Unea and Kandrian/Turuk. Participant signature lists follow.

EXHIBIT #1

COMMUNITY DEVELOPMENT INTRODUCTION SESSION
BALI ISLAND - UNWB MARCH 9, 1985

NAME	PLACE	WORK
1. SA MARY	Vunapepe	Kristen Community Development Team.
2. AUGUSTINE MOORE	HEALTH SECTION - UNWA. BALI	HEALTH EXTENSION OFFICER
3. Alfred Kaho	Unea Island	Teacher.
4. Alvis Sam Kawa	Unea Island	Teacher
5. Alphonse Liguori Champa	Unea Island	Seminarian
6. Simon Maku	Penopo	Teacher
7. Oscar Vatican	Bali Is.	News Reporter.
8. Bernard Mauge	Penopo	Teacher
9. PASTOR BAKI	VATUKELE	A.P.O.
10. Anthon Isam	Vatukele	Teacher.
11. LUKE TAKE	Vatukele	Teacher
12. PETER	VATUKELE	KATIKET
13. ANTONIO BISO	KUMBURI	TEACHER
14. MARY KOKH	KUMBURI	TEACHER
15. Maodalei Baki	VATUKELE	TEACHER
16. LEONIE GIALUNGA	FLNOFO	TEACHER
17. DOMITILLA MALU	PENOPU	TEACHER
18. Linus Tulu	Penopo	Katukele
19. Michael Bumbaci	TEACHER	TEACHER
20. Mathew Lagia	Kumburi	Kateket
21. JOHANN BAZAK	NIGILANI (S.D.O.)	CO-ORDINATOR.
22. Anthon Masia	Vatukele	katikele
23. Joseph. BUD	"	Apo
24. Joseph Kantauru	"	Teacher.
25. GABRIELLA KALPSEN.	VATUKELE	Teacher.
26. Thomas Namas	VATUKELE	Teacher.
27. Theresia Poka	Makiri	Teacher.
28. PAVAL ESAU	MAKIRI	NURSE
29. ...	MAKIRI	NURSE
30. Sr. Fidelma. nisc.	MAKIRI H.C.	NURSE. S.I.C.
31. LEONIE NENE	MAKIRI H/CENTRE	NURSE.
32. ...	Makiri Mission	Kateket.
33. ...	Makiri Com. Sch.	Teacher.

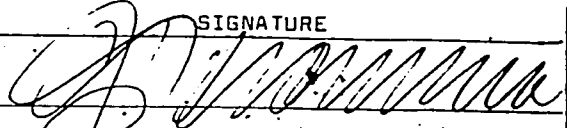
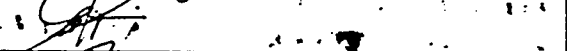

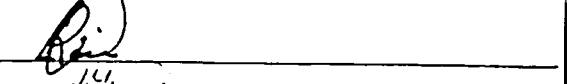

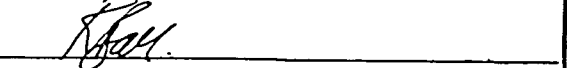
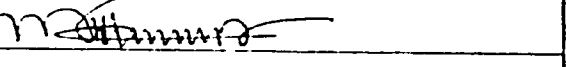
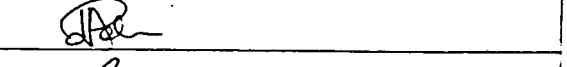


NAME	PLACE	WORK
15 THERESIA VATICAN	MAKIRI C/SCHOOL.	TEACHER.
20 LUCIE MURRAY	MAKIRI C/S	TEACHER.
31 THOMAS KOMBOLI	MAKIRI C/C	TEACHER
33 GEORGE TUKA	" "	TEACHER
34 Peter TATAU	" "	Teacher.
40 Paul POKA	" "	Teacher
41 Sr. Rosafior Banno	Ruango	KKD member
42 Ellen Van der Brugge	Vun-goge	PTC-Worker
43 Fr. Williams	MAKIRI Mission Station	Paris Priest

KANDRIAN DISTRICT PRIMARY HEALTH CARE/COMMUNITY DEVELOPMENT WORKSHOP

Exhibit #2

DECEMBER 2 - 5, 1985

LAIAMA

PRINT NAME	ROLE/TITLE	SIGNATURE
EUGENE JOROMO	ASSISTANT DISTRICT OFFICER	
EDDIE ORAI	DISTRICT BUSINESS DEVELOPMENT OFFICER	
PENNY MARORO	a/ ASSISTANT SECRETARY	
LUCAS ROVI	DISTRICT RURAL DEVELOPMENT OFFICER	
SCOTT NAWA	DISTRICT FOREST OFFICER	
ROBIN BALL	MEDICAL OFFICER	
dr. Richard Jones	ED. C.	dr. Richard Jones
AUGUSTINE MONIES	EDUCATION - SCHOOL INSPECTOR	
KATA B. TUMIA	NUTRITION OFFICER (RDT)	Kumia
MARIE TYLER	PROVINCIAL NUTRITIONIST - N.S.P.	J. Muijers
Josephine Relis	Small L/S Extensionist Menganja - Morobe Province	
MARIA BEENEN	MANAGERESS ANGA NUTRITION PROJECT HENYAMPA (MOROBE P.)	
CICHL KUMIA	HEO	Kumia
BELDEN AIDE	HEO - ESELL	

PRINT NAME	ROLE / TITLE	SIGNATURE
CENTRAL PAB-SMANUA ANTON AREP	CATECHIST / ANAZER	Anton Arep
PANGOL AKING	COMMITTEE - PAPS A.	X PANGOL AKING
ILE KARU	COMMITTEE - LAURINS.	
IGIS	TUNJUN. - PAPS A	
TULAM	LUCANI. - LAURINS	
TAKWID	LUGUAI. - MAKLONGKULONG	
SEWANG	COMMITTEE - DEVELOPMENT COM. MAKLONGKULONG	
INIME	MAGISTRATE / LUGUAI - AIWO	
PAU ILEMIO	COMMITTEE - LIAMA	Paul Ilemio
NAGLI	LUGUAI - LIAMA.	
KARANIE	HEALTH COMMITTEE - PAPS A	
LE LENROL	VILLAGE PEACE OFFICER - SENESI	
PETER AURUT	MAGISTRATE - SENESI.	
A LIKLIK	KUSKUS - SENESI	
BERNARD PUSAI	HEALTH COMMITTEE - AMIAK	

NAME	ROLE/TITLE	SIGNATURE
CENTRAL PASS. MANAJA TOMLI	TUGUL - ANGELEK	
GEORGE TALI	HEADMASTER - LAURING.	Wali Bilof
PHILIP WOLONS	HEADMASTER - LIAMA.	
ALPHONSE KOIANG	LULUAI - PONUGU.	
JOSEPH SALANG	COMMITTEE - DEVELOPMENT PROC. BUSINESSMAN - PONUGU.	
PAUL WARKOT	MAGISTRATE - PONUGU.	
PATRICK PERBANG	KUSKUS + PRAYER LEADER - PONUGU.	JP
KILKILIO	LULUAI - ANUMDU.	
KIKILI	LULUAI - AURE.	
JACK KAIK	COMMITTEE - AURE.	Jack Kaik.
PETER WOKMAK	PEACE OFFICER - AURE.	PETER WOKMAK
WASA	LULUAI - AMUZON	
JOHN KAILI	DEV. COMMITTEE - AMUZON.	
THOMAS MALIS	HEADMASTER - PONUGU.	Thomas Malis
BRUNO SERIO	POLICEMAN - AMIAK.	
KARU KARSUN	LULUAI - AMIAK.	
MANUC	DEV COMMITTEE - AMIAK	

1/2/83

PRINT NAME	ROLE / TITLE	SIGNATURE
CENTRAL PAS. MANUA MARKUS VANGU	HEALTH COMMITTEE - AKA	
PAUL MISANGIO	HEALTH COMMITTEE - APALAM	
KARL HALUNGLI	MAGISTRATE - AKA.	
PUS KOMATALE	HEADMASTER - AKA	
KAKUM	DEV. COMMITTEE - APALAM	
LEPU MASIS	TUTOR - UTRUMBU	
MALAI	TUTOR - APALAM	
SARIMLI	DEV. COMMITTEE - UTRUMBU	
RESECEPALLA ALDIS LANG	HEADMASTER CATECHIST - LAURING	Signature
PAWIS KALIN KAULONG		
AROS CISE	Development Committee	Signature
UDULO HILLI	TUTOR	
HARRISON ABLEP	HEADMASTER - Lalungjung	Signature
VINCENT H. S. M. P.	TUTOR	Vincent H. S. M. P.


NAME	ROLE	SIGNATURE
ANTON PAUL	PEACE OFFICER	AP
JAMES HOOKER	CAPTAIN	James Hooker
MAH LIENG	SULTAN	M. Lieng
MARLUS TOMALIO	JUDICIAL MAGISTRATE	M. Tomalio

Palau

<u>NAME</u>	<u>ROLE/TITLE</u>	<u>SIGNATURE</u>
KINGME HOMIN	DEV. KOMITI	
JOSEPH . UTI	" "	
ANDREN . SEKPO	CLERK VILIS KOT	
ULELIO . YAHNO	PEACE OFFICER	
PAUL . MORPI	CLERK V/KOT	
SAMLI . HENGI	HEALTH KOMITI	
PETER . LEMIO	DEV. KOMITI	
SIMON . LEMIO	MAGISTRATE	
LUKAS . TIPLI	DEN. KOMITI	
KUACH . HENRY	D. PI. KOMITI	
PASIMLE . KIAMLI	KOMITI	
TUKA . NYENBO	DEN KOMITI	
LIKIEK NIHENBO	DEN KOMITI	
JOHN PITSILI	POLICE OFFICER	
LESLI MOLOLA	H/M AMUIA	
LILNGIN PAUL	MAGISTRATE	
SEPI LEZI	DEN KOMITI	

PRINT NAME	ROLE / TITLE	SIGNATURE
ISIKAR VALUE	HEADMASTER ESELI	<i>[Signature]</i>
KATHI WILLIAMS	CUSO VOCATIONAL teacher	<i>[Signature]</i>
SUE BALL	NURSE / MIDWIFE / HEALTH	<i>[Signature]</i>
ELLEN VAN DER BRUGGE	HEALTH PLANNER	<i>[Signature]</i>
ISIDORE TELI	DISTRICT SERVICES HQ, KIMBE	<i>[Signature]</i>
FRANCIS AMOON	DIV OF HEALTH - KIMBE	<i>[Signature]</i>
SR. MARY DRUM	Kristian Kominanti, Development - Food Technology	<i>[Signature]</i>
SIMI ANDREW KADULA	Health Committee	<i>[Signature]</i>
PIUS ARUNG	Vic Chairman D.C	<i>[Signature]</i>
MICHAEL IRIO	Health Committee	<i>[Signature]</i>
JACOB MAIANG	CHAIRMAN BOARD MANG F/S	<i>[Signature]</i>
PETER PALENG	VILLAGE KOMITI	<i>[Signature]</i>
ANDREW PANGELO	VILLAGE KOMITI	<i>[Signature]</i>
SIMON UPU	TUL TUL	<i>[Signature]</i>

3.21

NAME	TITLE	SIGNATURE
THOMAS RUNGIO	LULUAI	τ
THOMAS KAVOLONG	LULUAI	'
RAAPHAEL KINING	LULUAI	.
PIUS RODROP	LULUAI	
ANDREW NOVOR	V. KOMITI	z
PETER RANGIO	V. KOMITI	-
SIMON AREC	V. C. MAG	+
JOHN SASIO	V. KOMITI	"
RENGIO	V. KOMITI	-
KATETIO	LULUAI	/
SANDRING	MAGISTRATE	-
TOMUNGUL		-
MARIC KAPOONG	POLICE	+ Kapoong
SUDLI FRANCIS ANDREW Vindrong	• APO MALO	

ASENGSENG GROUP

NEM	WOK BILONG EM		
LIK LAM. SAHAK LUKWALI. AIHELI TIHWAL. SULUM SUKUL. RITA	DEV. KOMITI " " " " VIC PEACE OFFICER		

ROUTE

NAMES

HOSIA LANGEN - (WDC)
ANTON KARINIA APO URIN.
PAUL TEKSI (PEACE OFFICER)
BEN APNANUNG - (COMMITTEE URIN)
PETER VURU MA PEACE OFFICER
PAUL SENGLE MAGISTRET
LEO ASONG - TULTUL - GIRIN
LINGLING MAGISTRET
AMBRUMIO LULUPI - GIRIN.
AVEL - COMMITTEE
WESLY GILIS - TEACHER (URIN C/S)

APPENDIX B

Nutue Documentation

SUBJECT: "LACK OF SUPPORT THROUGH MISSED UNDERSTANDING BY THE COMMUNITY AT NOTUNE"

NOTUNE C/School was recommended to the P.F.B. to be closed and NOTUNE H/C was likely to be closed as well because of the above subject.

On the 13-11-84, ^{a meeting} was called among the teachers and Nurses to discuss the problem and try to remedy the situation.

Through the discussion we decided to form a Committee. The work of the Committee is to try to walk to the villages in the area to really tell the people the work of Education / Health Education. eg. What is Education, functions, aims benefits and outcomes results.

Why was it put into the community etc. These questions also apply Health Centre and the church as well and there more if we do deeply.

The Committee comprises of the ~~work~~ teachers and Nurses of the two agencies.

President: Camillus Tati

Vice President: Peter Morio

Secretary: Augustine Pang

Committee members.

1. Isidor male nurse.

2. Peter Banige Teacher.

H/M NOT/C/S.

Male Nurse.

S.I.C. NOT/H/C.

3. Joe Lelepo Teacher.

4. Mary Kievo Nurse.

5. Patrick Masea Catechist NUT/Parish -

The name of the ^{PHC} Committee was called

"NUTUVE CHRISTIAN COMMUNITY DEVELOP/GROUP"

The objectives of the group are as follows:

- ① To improve Community awareness of Church and Lit Service
- ② To ~~imp~~ increase the understanding of the needs of the Com/Co-operation.
- ③ To ~~assist~~ to teach assist the people on self-help projects.

Here is our three (3) week programme to be effective on next Wednesday 21-11-84
 To clarify more clearly here is the whole programme.

TOPICS	VILLAGES VISITED	DAY	DATES.
1. Right of Education 2. Christian " 3. Education & Production 4. Education Development.	PATURU SENEL* MOIVE	WEDNESDAY	21-11-84
5. Education & Communication. 6. Health Education of comm - health. (a) Prevention, better than cure. etc (b) Proper disposal of faeces + Sanitation. (c) Nutrition. (d) Un- derstanding of disease.			
Remets. The same topics as in week 1 will be talked about but in different villages.	LALIKA BELIOI * MONGO LAMPURU	THURSDAY	29-11-84
	BAKURJAN No 1.	TUESDAY	4-12-84

TOPICS TO TALK ABOUT . VILLAGES VISITED . DAYS . DATES-

3 See the detail topics in week 1, but to the different villages.	PLOVO * IRE	TUESDAY	11-12-84
	KULA, BAKURA. 2* ORELA	WEDNESDAY	12-12-84
	TRAVELE BAGITAVE*. BIRIGI	THURSDAY	13-12-84

4
 EVALUATION WEEK.

- The group also decided to set up some self-help projects such as.
1. Water tank construction.
 2. Nutrition garden for the school and H/Centre.
 3. Youth group.
 4. Adult Education

ORIGINAL COPY

EXHIBIT # 2 01

To the much concerned people
from the village of Nutuve
Nutuve Christian Community
Development Group.

Nutuve C/school,
Inland Ponnio
Gomni/Government
P.O. Ponnio

SUBJECT

28-11-84.

"SUMMARY OF EDUCATION TALK TO THE VILLAGES AT NUTUVE"

① Introduction: What is Education?

Education is more than knowing how to read and write.

It involves these stages in a child.

Firstly it develops attitudes, habits and qualities of a character.

Child must be reliable

" " " self-reliance.

" " " self-control.

" " " obedience.

" " " helpful.

" " " courtesy and sincerity.

Of course parents are regarded as first teachers, and teachers are to build these in a child in their teaching and through examples.

② Christian Education:

Is full and harmonious development of a human person. Child must know the relationship between God and each individual and to live in the way God wants him/her to be.

③ What Education can produce?

Education produces people with knowledge to take up jobs such as Teachers, doctors, nurses, K raps, didiman, pilots, Priest, church sisters good Christian leaders and active members of their community.

④. What education can bring to the community?

- * Social changes, eg. schools, sport, meetings, church
- * helps the people to see their environment
- * Improve living standard.
- * Learning new skills and ideas and Education of all sorts.

5. Education and Communication.

Enables the people to read written information eg. news papers, books all kinds circulars.

* Media eg. Radio. creates understanding, talk save political Education through media.

* Dial urge Conversation, meetings, discussions, interviewing etc.

6. Protection is better than curitive.

7. Proper disposal of faeces.

8. Nutrition

9. Knowledge and Sanitation

These topics are taken by a male nurse at Nature H/Centre no. Peter Morris.

These are the importances of Education, Health Education and It is one of our main task as Teachers, Nurses and others ~~may~~ ^{to be} involved with people ~~is~~ to educate them/people about what services the government likes to bring and what changes does come about.

The main problem we see here ~~was~~ that people don't value the Education, Health services ~~etc~~ and others as well.

The Committee has brought some ~~cut~~ ^{come} results of the work of Education.

* Good Christian leaders.

* Better living standard.

* Unite people together.

* Good Peaceful Government. ^{all this} makes the

Community happy. It is the result of Education.

This is the summary of our three (3) week programme which I have circulated to your office already.

During our two visits so far we have gained a good support from the people and by the end of these year, all people should be able to understand the work of Health Education and Education of their children -

~~May be~~ That's all I have to summarise the Team's work so far.

Yours Sincerely

Group President: Prof. A. T. .

The officer - Mr. Peter Batavi
 Water and Sanitation
 Division of Health - RMAUL.

EXHIBIT #3
 NUTUVE Health Centre
 P.M.B. RABAU
 POMIO - ENBP

SUBJECT: NUTUVE WATER TANKS

Dear Sir:

Concerning the above subject, I am very pleased that you have sent an officer up to Nutuve to survey the water tanks and sites of installation - ~~(there)~~ there were (5) five water tanks allocated to (5) five villages by the Community Government. These tanks were supposed to be their projects but were been abandoned. Anyway we patrolled through all ~~the~~ the villages and found out that parts of these tanks were missing. Cement bags were spoiled (heard) Bolts, nuts + screws have Rusted.

Villages with available parts of Tanks.

Villages	Roof Panels (19 + 1 manhole) (20 Panels)	Wall Panels (10) 8 + 1 Tap Panel + 1 over-flow	Floor Panels (10)	Centre Pipe Support (1)	Centre Floor Panel (1)	Centre Roof Panel (1)	Tap (1) assembly	Catch
BAKURIA	Complete set	8 + 1 Tap Panel	9	1	1	1	1	22 S.
KULA	18 + 2 man holes	Complete set	Complete set	1	1	1	1	Read.
LALIKA	Complete set	Complete set	9	1	1	1	1	9 She
PIOVU	20 no manhole	Complete set	6	1	1	1	1	15 She
MONGO	Complete set	Complete set	Complete set	1	1	1	1	20 She
GELIOI	9 + 1 manhole	Complete set	6	1	1	1	-	9 She

Sir, all parts of tanks located during this survey patrol are as listed above according to respective village - other parts will ~~be~~ surely be located later on with gutterings, down pipes and all this will be reported. If parts will not be found - you will be informed as please, we really want you to take action on this. Villages are going to take care of the natural resources eye sand, gravel, stone etc. But we really need the technical advise - People are really looking forward to participate in this very big operation.

Sir, if anything else not included in this report you would like to be informed about, please contact - Miss Ellen Vorder Brueg PHC worker - Vunapope Hospital and Mr. Peter Morris Nutuve Health Cen.

We request the cooperation and support of the church and Government agencies to help our work be successful.

Respectfully submitted

Peter Morris.

PLES	NIDS	NUTUVE COMPREHENSIVE DEVELOPMENT PLAN			EXHIBIT # 4	
		UOK BLG OL MAN BLG PLES	OL SANTING BLG PLES	SAVENAN	OL SANTING BLG AUS'IT	TAIM BLG UOKIN
Olgeta	Didiman	1. Uokim Haus blg didiman 2. Klinik graun blg gaden	1 stap	Didiman Kapenta	1. Orait lg graun -Archbishop 2. Ol semting blg wokim haus ne gaden	Stat Nau
Peturu Segitave Lakiri	Uara	1. Karim tang i go lg ples 2. Uok lg sanapim tang na haus	1. graun 2. diwai	Pluma	1. Tang ne kapa -Helt Dept. -Komuniti Savmen	6-pela mun blg stat
Kula Fiovu Bokuria Lalika Honggo Gellol	Uara	1. Kisim wetsan, ston, wera, etc. 2. Karim ol sam- blg tang 3. Sanapim tang wantaim saveman	1. wetsan, ston wara, etc. 2. orait lg graun	Pluma	1. Tang ne kapa -Helt Dept. -Komuniti Savmen	Stat Nru
Lakiri	Bris	1. Uokim bris	1. Diwai, rop	Stellon	1. Rop	1-pela mun
Lakiri	Skul	1. Uokim census 2. Salim aplikasen 3. Uokim haus blg skul na tise 4. Uokim haus pekpek 5. Lukeutim tise	1. Orait lg graun 2. Diwai blg haus na skul, etc.	1. Tati 2. Local Council 3. PES 4. NEC		Stat nau bai i kamap lg 1987
Olgeta	Kaikai (Toro)	1. Uokim gaden 2. Uokim banis	1. Diwai 2. Ol stik blg planim	Sr. Mary Didiman	1. Orait og graun -Pater 2. Stik tero	Stat Nau
Yut Group	Kakaruk	1. Uokim haus 2. Moni blg stat 3. Lida	1. Ples blg haus	Didiman	1. Kakaruk 2. Kaikai	Uetim Didiman
Hongo	Viles aid	1. Karim marasin 2. Nan o meri i kisim skul	1. Skul lg Nutuve	Nes	1. Marasin	Inap lg 2-pela mun
Olgeta	Uok lg ples belus	1. Kutim gras 2. Uokim banis	1. Diwai 2. Hap	Tati	1. Moni 2. Bir	Uetim Toksave

EXHIBIT #4 CONT.

FLES	RIDS	OLK BLG OL L.M. BLG FLES	OL SANTING BLG FLES	SEVERAN	OL SANTING BLG MUSAIT	TRIM BLG WOKIM
Gelioe	Lo na Urda	1. Makim man 2. Kisim skul 3. Wokim haus	1. Haus	CIC - Komuniti Gavmen	1. Orait lg Komu- niti Gavmen 2. Lo buk 3. Orait lg viles kot opis	Wetim toksave alsem orait blg Komuniti Gavmen
Paturu Tehel Parakamen	Haus pek pek	1. Digim hnl 2. Wokim haus	1. Diu i	P. Moris	Nogat	Nau inco lg 3-pela Kunde
Gelioi	Pik banis na gaden	1. Wokim banis 2. Planin gaden 3. Kalabusin pik	1. Diwai	Nogat	Nogat	Stat Nau

NUTRIVE DEVELOPMENT PLAN 1986

EXHIBIT #5

NOTES

PLES	NIDS	WOK BLG OL MAN LG PLES	OL SAMPING BLG PLES	SADEMAN	OL SAMPING BLG AUSAIT	TAIM BLG WOKIM	PAPA LUKAUT	NOTES
Olgeta	DIDIMAN	Planim haus big didiman Klinim graun big garden Singsatim Swoman (1)	1 stap	Didiman	Plank Cement Wara tanki	Stat gen lg pinio big dispela mun Feb	FIDELIS NA KAI-MOINIE	(1) DROO duk Didiman i kamp lg dispela taim na ol samping big intem haus.
Paturu Lakiri	WARA (Sanapim Semen Tang)	Karim ol samping big wokim tang lg ples : moulds/murasin fita na waia wetsan Koronas Semen	Graun Wetsan Koronas Wawa	Maseu	Moulds/Semen/Murasin Fita/waia/Semen Helt Dept. na Komiti Gawman	Stat Nau	Sena - Paturu Nick na Joe Gutere - lakiri (2)	(2) Chairman big Komiti big Haus Sik
Bagitabe	(Stretim ol tang Kapa) (4)	Karim ol samping big wokim tang lg ples	Wetsan Koronas Dimi big Haus Wawa	Maseu	Kupe - Biter Bolts na Pattry/Kant - Komuniti Gawman	Bihain lg Komuniti Gawman miting (3)	Kauve - Kounsior Maseu	(3) Miting skedul dispela mun (4) Kupe strong yet - nil nupela bolts na pattry na kupe big haus
Geloi	(Pinisim wok big Semen Tang) (5)	Karim semen lg ples	Wetsan	Maseu	Wawa/Better-threads Murasin big Semen Semen - Komuniti Gawman	Stat nau	Bigilong na Maseu	(5) Tang i no grt ai yet na tap.
Mongo	(Sanapim Haus Klostu lg tang)	Wokim Haus	1 stap	—	Stap pinis	Stat nau	Leo na Fidelis	
Kalika	(Stretim guttre)	Stretim guttre lg haus	1 stap	Michael (Aunai/Kaproti)	Kupe big pasim guttre	Bihain lg Komuniti Gawman Miting	Keute na Michael	
Kulu/Bakuria/Pawa Haliki/Mongo	(Longpela paip na tap big pasim na "anti-rust paint") (6)	Pasim paip na dispela tap na pint lg tang	1 stap	Michael	Paint/Paip/Tap - Komuniti Gawman	Bihain lg Miting	Lida man lg ples wantaim Michael	(6) Long lukautim gut tang.
Lakiri	BRIS	Wokim Bris wantaim sampela lain lg Nutrawe Krim post diwai Pasim strong lg ston	1 stap	Stellon	Pop na ples	Stat 1-pela mun bihain (7)	Fidelis	(7) Taim big hangre nau ol lain stop loggwe lg pasim kaikai
Lakiri	SKUL	Salim pas lg Edukasion Departmen lg tok save ol lain lg ples yat kukyet lg dispela Stap reeli lg wokim haus tisa na skul na lukautim tisa	1 stap	Local Kommiti	PEB NEC	Insait lg G-pela Mun salim pas 1989? Skul i kamp	Kounsior	
Olgeta	GADEN KAIKAI (8)	Planim na lukautim hap big em lg de big kamant leek - Fonde	1 stap - Siktare na Diensi lg Bimis	Augustine Joe Sr Mary	Sampela ead	Stat nau	Siman big Helt Komiti lg wanwan ples na JOE na AUGUSTINE	(8) Garden stap lg station fasol wanwan ples gat hap big em lg lukautim. Staff lg Station lukautim Control hap na ol rekorvols.
Yut Grup	KAKARUK	Wokim Haus mun big Stat hikel	Ples big Haus	Didiman	Kakaruk Kaikai	Bihain lg taim Didiman kamp	Mukim Bihain	

PLES	NIDS	WOK BUKU OL MAN KE PLES	OL SAMPING BLG PLES	SASEMAN	OL SAMPING BLG AUTSAIT	TAIM BLG WOKIM	TAPA LUKAUT	NOTES
MUNGO	VILES AID	Karim marasin lg ples Mun amari kism skul (9)	Skul lg Nektuve	Nes	Marasin Ecks blg Marasin	Insait 2 pela wik makim man amari lg kism skul.	LEC - Bering (Kunsitor) Augustine	(8) Movi i makim pinis i ples ol lain lg ples negat laik blg kirapim dispela wik.
Ogeta	WOK LA PLES BALUS	Kustin gres ? Wokim banus } wanwan Grup (10)	Diwai Nip Skekel blg wok	Kasavi	Waria Nil Moni	Stat nau	Kasavi	(10) Grup blg bakiri i laik go insait lg skekel - i gret 10 pela grup nau.
Geloi	LO NA ORDA	Makim man Kisim Skul Wokim Haus	Haus	CIC Komuniti Gawman	Orait lg Komuniti Gawman ho Buk Orait lg viles kot opis	Taim blg Komuniti Gawman Miting (11)	LEO - BERING	(11) Ol i makim mas pinis Bekim blg viles kot in komuniti Gawman - krap na pelis mas sikekel insait ples blg kirapim dispela wik. Ol i sengkum pinis krap lg Base Camp mas pulin tingting blg Komuniti Gawman gan lg dispela
Pawekaman	HAUS PEKPEK	Digim Hol Wokim Haus	Diwai	Peter Morris	Nogat	PINES	Saiman blg Helt Komiti lg ples	
Senel Paturu		"	"	"	"	Statim, i no pinis yet. Wokim wanwan Maule Mas pinis insait 2 pela mun. Ol lain lg ples i tok negat laik lg dispela (12)	Gaiman blg Helt Komiti lg wanwan ples. (12)	(12) Wanwan ples i kirapim helt komiti blg wokim ol saming i strop insait haus sik proyek lg ples
Geloi	PIK BANG NA GADEN	Wokim bisnis Planim gaden Kalabusim pik	Diwai	Nogat	Nogat			(13) Ol i tok yumi pol lg taim wokim ples, ol i no autim dispela tingting lg miting, i tingting lg lain blg BAKUSA.
Ogeta	HAUS TISA	Kisim wetsan Koronas cement	Wetsan Koronas	Michael nakinas - Kipenta	Diwai Kapa Cement Pien	Stat nau (14)	Michael Mousci-Jawa	(14) Kapeda/Diwai/Kapa i strop recti nau. Ol lain lg ples laik kism wetsan na Koronas humrap. lain lg haliba na Moga Kisim samesan lg bekim skul lg semen lg trug blg em.
Bakuria/Kulu Ire/Bakuria 2/ Povu	HAUS KUK TISA " PEKPEK " " PEKPEK PAKIM "	Sanapim Haus Digim Hol Wokim Haus	Diwai Lip	Nogat	Nogat	Fonde 2 pela wik	Lida man blg dispela ples	
Paturu/Senel/Brigi Pawekaman/Brigitau/ Tavale	HAUS KUK NES " PEKPEK " " " OL SIKIM "	Sanapim Haus Digim Hol Wokim Haus	Diwai lip	Nogat	Nogat	Fonde 2 pela wik	Lida man blg ol dispela ples	
Ogeta	LUKAUTIM KAMAP BLG SKUL PAKIM (15)	Lida man wantaim wan papu na meusa pikim i kemap pinis go sa toktek wantaim papu na mama blg pikim i no kamap.	Man blg wakaubut wantaim pikim i kism i go lg skul.	Tisa	Tisa - tokave wan wan wik haumus pikim blg wanwan ples kamap pinis lg skul.	Statim 2 pela wik pinis	Lida man blg wanwan ples na 3 pela tisa	(15) Stat basol blg dispela wok basol wik 1 - 10 pikim wik 2 - 31 pikim " 3 - 59 "

Visit to Nutuve by Cox, Gunawardhana and Kasimani from L.A.E.S.

18-22 February, 1985

The yields of taro in the villages around Nutuve do appear excessively low (150g/corn cf. 680g/corn after 6 months at Arambam on the upper Warangoi, another of our sample sites). The reasons for this are not clear. Although taro leaf blight, virus diseases, corm rot and Papuana beetle damage were all seen, none of these were sufficiently severe to account for the low yields.

We suggest that some or all of the following treatments should be tried in local gardens to find out more about the cause of the problem and how to alleviate it:-

- (a) Varieties Planting material from the Bainings e.g. the cultivar Kulavesca, might be tried. The yield potential of these varieties is known to be substantially greater than the actual yield of local material.

(b) Soil

If the gardens are forked before planting (to open up and aerate the soil), this might provide better conditions for root crop development. The soil could be loosened again during subsequent weeding. Perhaps the taro could be planted in trenches (say 1ft deep and 1.5ft wide) with composted organic matter (? cut grass).

(c) Fertiliser

Soil samples were taken and we will provide the results of the analysis when these become available. In the meantime, it might be worthwhile to try topdressing developing corms with a nitrogenous fertilizer (e.g. urea or ammonium sulphate).

(d) Pesticide

There is a possibility that the condition is associated with soil-borne pests, perhaps nematodes. The response to applications of a granular insecticide (e.g. lindane, carbofuran) should be considered.

It must be stressed that these are experimental treatments to test the yield response on small plots in farmers' gardens NOT for extensive use. There should be no need for a complex experimental design (as long as it is noted which treatments were used on particular plots) as we are looking for a large response. If we are on the right track with one of the treatments, the response should be obvious. A formal experiment might then be put down to map the response in more detail before formulating any general recommendation.

We would be only too happy to help in any way we can with the implementation of these proposals.

P. Cox
S. Gunawardhana
C. Kasimani

LAES, 4 March 1985

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EXHIBIT #7

LOWLANDS AGRICULTURAL EXPERIMENT STATION

DEPARTMENT OF PRIMARY INDUSTRY

TELEGRAMS: ILF 926251
TELEPHONE: 926251, 926252, 926253
CORRESPONDENCE OFFICER-IN-CHARGE

C/- P.O. KERA /AT
E.N.B.P.
PAPUA NEW GUINEA

Assistant Secretary
Department Primary Industry
P O Box 440
RABAUL

DATE: 1 April 1985
OUR REF: 23-1-V
ACT. OFF: CROYDEN/mkb
YOUR REF
DATE:

RE FOODCROP STUDY OF THE NUTUVE AREA

Dear Oswald

During a recent visit by our taro team to Nutuve, it was obvious that there was a major food production problem facing the people.

Due to the isolation of the area a major research effort would be too costly to undertake but Dr. Peter Cox our Foodcrops pathologist has made some recommendations to follow up on which could be carried out by your extension officers in the area.

As it is already past the usual planting time for the Nutuve area and with the wet season due in May, the initial work would have to be super-imposed on existing gardens recently planted. The Catholic Mission based at Nutuve have personnel that are interested in assisting with any observation plots for data collection.

It would be best to select various areas of inland Pomio to do the study to draw out any anomalies of food crop production in the general area of the south coast.

If funds are available from Provincial sources, a helicopter could be chartered to do a preliminary survey of food gardens from the air and collect soil samples from selected sites.

One strategy is to focus on three areas of the south coast of E.N.B. where rainfall and soil conditions appear to be similar and survey food gardens in these areas.

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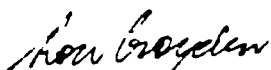
These are:

- 1) East Pomio - Nutuve area, population - 2154)
- 2) East Pomio - Central Pomio near Mt. Ulawan - population - 2031)
- 3) West Pomio - area near Au'una Health Centre - population - 3527)

If resources are limiting, then the Nutuve area can be concentrated on with data collection of the other two areas being carried out by extension Officers to use as background information.

Your further suggestions/comments on the proposal would be much appreciated.

Yours faithfully



RON CROYDEN
Area Horticulturist

cc Dr Peter Cox
Foodcrops Pathologist
L A E S
KERAVAT

cc Mrs Miriam Ponja
Food/Nutrition Section ENB
RABAUL

cc D R D O Pomio District

cc Sr Mary Drum
Nutrition Section Vunapope

Assistant Secretary,
Department of Primary Industry,
P.O. Box 440,
Rabaul

Proposed research/extension project for Inland Pomio

During a recent visit to the Nutuve area of Inland Pomio as part of a taro garden survey project by Cox, Gunawardhana and Kasimani from L.A.E.S. (18-22 February) it was established that the yield of taro is low compared with that achieved in the Bainings (150g/corm after 1 year cf. 680g/corm in 6 months in Arambam). It was concluded that this is a location-specific problem - related to soil and weather conditions in the area - rather than the result of a specific disease. But the fact remains that cultivation of adequate food in this part of Inland Pomio does appear to be difficult and that it is potentially a food-deficit area. The difficulty of access to these villages precludes the use of purchased food except to relieve severe shortages. We have been asked by Provincial DPI to draw up a research/extension project with a view to identifying and, ultimately, relieving existing yield constraints and avert the possibility of Inland Pomio becoming a food-deficit area.

We propose that the DPI project should incorporate three distinct aspects:-

- (a) data collection on existing farming systems
- (b) relief of immediate constraints within traditional production systems
- (c) development and introduction of improved alternative systems.

These are not to be considered as sequential: all three activities can be carried out at the same time and in the same gardens.

The DPI Officer in charge of the project will need to:-

- (1) cultivate a garden of his own to test out possible improvements, for use as a demonstration plot for improved practices once these have been identified, and to provide multiplication plots for newly introduced planting material,
- (2) arrange with a small group of local farmers (a panel of 5 should be more than adequate) to provide continuous data on inputs (particularly labour requirements), planting dates, cropping practices and yields in traditional gardens, and to include test plots in their gardens to simulate local farm conditions as closely as possible.

(a) data collection

We suggest that, to start with, the area for the DPI garden and the gardens belonging to the panel of farmers are identified and a proper soil analysis done on each. If the gardens are already established, sketch maps should be prepared showing the location of different crops with information on planting dates, varieties, crop spacing, disease and insect pests, and yields. If possible, the DPI Officer should record rainfall at his station using a simple rain gauge. Work could begin on this before the heavy rains which occur from June thru September.

(b) yield constraints within traditional systems

The DPI plot should be used to test different ideas to identify, and ultimately ameliorate, yield constraints within the traditional farming system i.e. the use of improved varieties, ways to improve soil tilth (for example by forking over before planting and/or incorporating composted vegetable matter in enlarged planting holes), use of fertilizer (pig

manure, household waste, inorganic fertilizer especially nitrogen and phosphate), use of granular insecticides (lindane, carbofuran). Suggested application rates for inorganic fertilizers would depend on the results of the soil analysis; pesticides should be applied at standard rates. Treatments which look promising should, where feasible, be replicated in farmers' gardens. Detailed records of all treatments, and the yields obtained, should be maintained by the DPI Officer. The treated plots need not be in the form of a complex experimental design requiring special statistical analysis. We are looking for large effects which, if present, should be obvious. The important thing at this stage is to try out as many different ideas as possible. When (if) a yield constraint is identified, a simple replicated experiment may be put down in the DPI garden to find out more about the shape of the production response before a general recommendation is made.

(c) development of improved farming systems

We should be planning now for the time when the traditional long bush-fallow system must give way, under pressure of population, to a more sedentary approach to farming. Initially, a garden may need to be used for a longer time before being abandoned. The rate of decline in fertility could be estimated in the DPI plot by soil samples and yield data in successive years. Ways of compensating for the decline in fertility could be tried out. These would be similar to those proposed under (b) above, but the constraints would almost certainly vary as the life of the garden is prolonged. Of more importance perhaps, the use of a garden over two or more seasons would allow the development of more complex cropping patterns - the optimal species composition would change in successive years as the fertility declined. The best way to manage the decline in fertility must be decided by experiment, initially on the DPI plot, then in farmers' gardens.

The use of new crops (?maize, various legumes) should be tested and demonstrated on the DPI plot, with a view to including them in an improved cropping system.

Although this is envisaged as a project for the Provincial DPI, the resources available at L.A.E.S., Keravat, should be used to the fullest extent possible. Not only can the staff at L.A.E.S. help with ideas, provision of planting material, data analysis and interpretation, but the project itself, if implemented, should be properly documented and written up as a case study of the interaction of the research and extension functions in an attempt to generate practical solutions to real problems.

As a first step, it is suggested that the DPI Officer responsible for this part of Inland Pomio be asked to identify a suitable site for a DPI garden and establish contact with those farmers willing to cooperate in the project. At this stage, a visit might usefully be made by a team from L.A.E.S. to supervise soil sampling and finalise treatments for the first round of trials, shape and location of treated plots, methods of data recording etc.. Because of the difficulty of access to this area, this will unfortunately necessitate helicopter hire (the airstrip at Nutuve is not serviceable for fixed wing aircraft). This charge can be kept to a minimum by (1) ensuring that the DPI Project Officer has completed his preparatory work and (2) arranging a visit by the Project Advisory Team rather than separate visits by individual advisers. A second visit by the advisory team should be scheduled about 3-4 months after the first (after the heavy rains) to check differences in plant growth in response to alternative treatments, methods of data recording etc.. A third visit should be made about the time of harvest (? February/April, 1986) to check yield estimates both from treated plots (which should be harvested entirely) and from untreated parts of each field using random crop cuts.

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The severity of the problem of food production in Inland Pomio should not be exaggerated. The people there are not starving. But neither should it be underestimated. A research, extension project of the kind proposed takes time to become established and to start to generate worthwhile recommendations. This kind of problem is complex and often appears intractable. But the sooner a start is made, the better the chances of averting a severe food deficit in Inland Pomio a few years hence.

M.G.Cox
Foodcrops Pathologist

R.Croyden
Horticulturalist

Lowlands Agricultural Experiment Station, 25 March 1985

21-5-A-20

The President,
Inland Pohnio Community Government
Private Mail Bag
RABAUL RFBP

28 February 1985

I. THAKWAMAI
Health Inspector

MUTUVE AREA WATER TANK REPORT

Dispela luluk long Map long Mutuve area, i bisenim wanpela report long 6x5000 gall W Water Tank. Dispela wera tank i stap long wanwan ples, na mi ting oli stap inap long 2 or 3 years pinis. Mi painim wanpela satingi oloson nuts bolts i bagarap pinis na tu ol bag (cement) i strong pinis.

Bikpela money i lus pinis long baen 6-pela wera tank na transport i karin ago antap long Mutuve Health Centre. Bicen ol man long wanwan ples i kisin ago long pas bilong ol.

Health Department i askim yu long wanem taem tru bai eli sanapim ol dispela wera tank, na wanem tingting bai yu redim bilong pinisin ol wok long Mutuve area.

Taem bilong Health Department oli save wokim dispela kain tank bai oli lusim Rabaul long van March. Bai oli sanapim 3-pela wera tank long West Pohnio, na 2-pela wera tank long East Pohnio.

Sapos yupela igat tingting long salin wanwan man bilong soim long wokim dispela kaen wera tank, mipela haemmas tasol long soim ol.

	<u>On site</u>	<u>Needed</u>
1. Kula Village 3,000 gall		
Sid Wall panel	10 (1 tap hole)	0
roof panel	20 (1 main ")	0
floor panel	10	0
middle pole	OK	yes
guttering	0	yes
down pipes	0	yes
cement	0	yes
brackets	0	yes
tap	0	yes
sand	0	yes
Achromat/DI	0	yes

1/66

<u>2. Plova Village</u>		<u>In site</u>	<u>Needed</u>	
5,000 gall Water Tank	wall panel	10 (1 tap hole)	0	
	roof panel	20 (1 man hole)	0	
	bottom panel	6	4	
	middle pole	OK	0	
	Catchment	15 (10 ft sheets)	0	
	guttering	0	yes	
	down pipes	0	yes	
	brackets	0	yes	
	cement	0	yes	
	tap	0	yes	
	glue	yes	0	
	washers	yes	0	
	bolt & nuts	0	yes	
	<u>3. Bakaria Village - 5000 gall</u>			
	side panel	10 (1 tap hole)	0	
	roof panel	20 (1 man hole)	0	
	bottom panel	10	0	
	middle pole	yes	0	
	catchment	22 sheet construct)	0	
	guttering	0	yes	
	down pipes	0	yes	
	brackets	0	yes	
	cement	0	yes	
	glue washers	yes	0	
	bolt and nuts	0	yes	
<u>4. Lalika</u>	<u>5,000 gall</u>			
	wall panel	10 (1 tap hole)	0	
	roof panel	20 (1 man hole)	0	
	floor panel	9	1	
	middle pole	yes	0	
	top & bottom plaster	yes both	0	
	catchment	9 sheet (10ft)		
	guttering	0	yes	
	down pipes	0	yes	
	brackets	0	yes	
	cement	0	yes	
	taps	0	yes	
	bolt & nuts	0	yes	
	glue washers	yes	0	

5. Celloi	5,000 gall	<u>on site</u>	<u>needed</u>
	side wall panel	10	0
	roof panel	10	10
	bottom panels	6	4
	top & bottom plate	yes (both)	0
	catchment	9 sheet	yes
	guttering	0	yes
	down pipes	0	yes
	brackets	0	yes
	cement	0	yes
	glue, washer	0	yes
	bolt and nuts	0	yes
	middle pole	yes	0

6. Mingo - Report to follow.

Yu kan lukim dispela report na lukim gut sampela haphap long sampela village ino putim gut ol dispela saming bilong wara tank.

Sapos yu laik bai yu salim wampela man igo long Nituve area bai kan lukim gen.

En tasol

Thanky you.

I. KHAMAI
 I. KHAMAI
 A/Health Inspector

- cc. A/Secretary - Health Division
- ... A/Co-ordinator
- ... District Manager - Palsalral
- ... Health Inspector - Fowle
- ... Provincial Health Inspector - Rabaul

11 O.I.C. - W/S / RABAU.

1/12/51

NUTUVE C/SCHOOL,
CI-POMIO POST OFFICE,
1-11-85.

The District Manager,

Palmalmal District Office.

SUBJECT: "THE REPLACEMENT OF MR. PAUL BOLELE AT NUTUVE DPI
BASE CAMP."

On Tuesday 29-10-85 and Thursday 31-10-85 the review was made on the Nutuve Action Plan which was planned in April this year during the first workshop.

The first project on the list was the S.P.I. Base Camp at Nutuve. The people knew that the Government has sent Mr. Paul Bolele to establish the base camp. In fact he has done it, but somehow he was entitled for his long leave after 15 years service. Therefore the work of the base camp came into a halt and the people were wondering what was happening and as well as the house was not completed with walling.

The Community like to know from the Government about the situation.

Here are their concern.

1. If the above officer is on leave, will there be any replacement?
2. If there will be a replacement, when will the officer take his new post at Nutuve?
3. The people understood that an order was made for the planks to wall up the house. Can you also check up when will that order be ready to be swept from Kabaul, Pomio & Nutuve?

The second concern is this:

1. There were enough flat iron has been air lifted to Nutuel for the walling of the S P I house. In fact Sister Mary Drum had a verbal conversation with the S P I officer at Palmalmal. That, S P I officer told sister that, if they wall the house with the ~~house~~ flat iron the house will be very hot indeed.

The people would like to know this:

1. Since the Government has spent a lot of money on these flat iron, therefore those flat iron must be used to wall up the house.

2. It's uneconomical to use more money on planks while the flat irons are being provided and in the place of work.

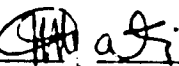
On the behalf of the people I like to summarise what has been mentioned above.

1. The people like to know, is there will be any replacement of the S P I officer? If not when will be the replacement? The house is uncompleted with walling, What's the Government doing about the ordering of the planks? The flat irons has been sent to wall the house and they are here now at Nutuel. Why can't those flat irons be used? To conclude the people like the Government to tell them clearly and quick action must be taken to overcome the problem of S P I officer to Nutuel.

This is because the DPI Base Camp was the first ~~person~~ priority on Nature Action Plan being produced in April this year.

The recommendation was made that, a letter be sent to the D.R.O. Palnamal and a copy be sent to District Manager Palnamal followed with a Radio call to the two above officers. The people are willing to hear from you all in two (2) weeks time.

May be that's all for your information and any necessary action is taken on the behalf of the Government will be very much appreciated by the people.

Yours Sincerely
Camillus Tati


NUTUUR C/SCHOOL,

C/- POMIO POST OFFICE,

7-5-85.

TO THE CHAIRMAN,

PROVINCIAL EDUCATION BOARD.

C/- P.O. BOX 922

RABBIT.

SUBJECT: "BACK GROUND REPORT ON A NEW PROPOSE SCHOOL TO BE ESTABLISH
AT LAKIRI VILLAGE IN THE INLAND C/S GOVERNMENT"

I Camillus Tati HIAJ visited C/S went into the
area and collected these information on 4/5/85 to the
S/STES. The villagers are willing to support the school to set
up their own school.

Their reasons are:-

1. The lives of their children are insecure if they come to
Nutuur C/S school.

2. The distance is another problem.

3. The big river - hard to cross.

4. Hard to climb mountains.

These are their main reasons for setting up their
own school.

These are the villages will leave the school.

1. Lakini village with 150 people.

2. Kavale village " 30 people.

3. Kawa " " 10 people.

4. Guligul " " 22 people.

S'anei village with 20 people.

66. Kiangge village " 30 people.

Total population of the whole area is about ~~262~~ 262
altogether.

These figures were taken when I went into the
area, but there are more people in Rabaul which
I did not count.

Concerning the grade one children, I have
sent the copy of the names of children who are
eligible for grade one if the school is approved.
There were about 42 children altogether and
about 10 more children, whom their parents didn't
bring to me to see. According to the information received
the people told me, that they will send their own
to school.

From my observation, there were more children
in each of the villages for the future grade ones.

The people told me that, they will give all
what they can to build their school.

The land for the school is being provided
The land owners have agreed to sell their land
just like the one the Aid Post was built on.

The land is big enough for the school facilities
that is what we expect to find in a school etc.

What the people do now is wait and

hope for the approval by the Peland
 P. via C/Government and Education Authority
 to tell them when their new school is to be
 opened.

With that I like to end off here the
 current report being taken.

Any queries or information contact
 Camillus Tati Natural C/School H/M.
 by Radio or written form.

That's all for your information,

Natural Christian Comm/Development Group
 President P. at.

cc. Peland P. via C/Government.

cc C. P. via Zone Inspector.

cc Catholic Educ/Secretary.

cc District Manager.

cc Rev Father Matthew P. via Parish.

cc Mr. In. Helmutrich Van alope.

cc Dr. Bolton Health Secretary.

cc To my file.

Note Ellen Can you type this report
 out and forward copies accordingly.

NATURE CISCHOOL,
INLAND POMIO CIBOUNTI.
P.O. POMIO.
18-11-85.

Dear Ellen, This is not an official letter but ~~like~~ just like you to be aware of what I had told you about when you were at Nature. Well in fact it was about a Base Camp to be established at Nature. One officer and a Comm/Govt Clerk also to be at Nature but still under one Comm/Govt which is Inland Pomio Comm/Government.

Another thing was about Annual Government Grant to be divided equally between Muela and Natural projects or areas.

The above agenda was brought up before the honorable minister for Community Govt and the executive and all agreed to set up a base camp at Nature just like the one at Muela.

I have asked the Coordinator for Inland Pomio to submit a letter to Mr. John Misener, the District Community Government Coordinator to follow up and a copy must be sent to me for reference.

Well, then again you can always negotiate with whoever is in authority as you are close by. When I receive the copy then I will send it to you to see.

I personally thinking that, more projects will work out more easily if we have such officers right in the area living with the people. That's all I have for you, Ellen. May God bless you and cheers for now

Camillus Tat
CMT

There was a workshop held at Nutuve for the APO's. Commenced from the 28/10/85 and completed on the 1/11/85 - Also within sessions, there was a review of the Nutuve Community Development plan.

Participants: - APO's of Ponoio Regions, west, east, central and Inland ponoio -

- Church Reps.
- Government Reps.
- Community leaders of Nutuve
- NCCDG (NUTUVE CHRISTIAN COMM. Development Group) Reps.
- U.K.D (CHRISTIAN COMMUNITY Development) Reps (PHD) workers.

LAKIILI BID POST OPENING. (OFFICIAL) - 29/10/85.

Visiting M.O's - Honorable Ministers: MR. TOIKILIK.

MR. SAGIMIT.

DIL. Bolton

FR. Wittwer.

MR. STELEN (Langhøjst)

Reps of Nutuve Health

- STAFF and NCCDG Reps.

Water Supply:

Carpenters and plumbers have already started on building tanks - on the 2/11/85. The first tank was being built (Tank stand Taso) people are still collecting sand. Tank put at the school for demonstration only - then to O.T. in villoys - By the people themselves.

pigs; around NUTRIVE station and health center area.

There was a rule, brought up by H/Center board that if pigs are seen around, above areas mentioned, should be killed.

For a couple of weeks already pigs were been wounded and a couple killed by H/Center staff (Petr Morris, and Isidor), Village people took action on that and asked for compensation. a meeting was held to solve these problems but nothing was solved.

H/Center staff called the ponio police and kiap to try and solve this problem - The police and kiap did solve the problem

Comments:

Police + kiap. ① Any pigs seen around the H/Center area, School area, Mission area should be killed.

② No licence needed to kill pigs but have the Rights

③ Pigs killed around station area. should be paid by owner before removing or taking home - if no payment, pig remains, station staff will have the pig.

④

H/Center staff, (Petr Morris). brought up (2) two conditions:

- ① all pigs should be killed in Village around Nutrive Station
- ② Every small pigs should be fenced - other big pigs can stay out until time for fasting, but must not come around the station for they will be killed on sight.

Village people: was very heard for them to make a decision under the two conditions

mentioned above - But finally said to try and built fences for small pigs and try to keep pigs away from station areas.

Pilot project garden.

Trying to solve problem of Taro and improve way of gardening. (OBSERVATION PLOTS)

Nutue H/Centre have started a project early this month on trying out different varieties of Taro. Taro suckers were taken from the Baining and other suckers taken from the local people - Nutue. These planting material were been planted in 3 different ways in two different style of Land preparation -
Land Prep - ① Baining style ② Nutue style.

Style of Planting - ① The Baining style of Planting.
② Nutue style of Planting
③ Trances (BARET) with dead materials packed in, then Taro suckers planted in.

This big garden was again divided into two sections for the harvesting times.

N^o 1 section - Land preparation, Nutue style mixed varieties - planted in bare t or trances and Nutue style - to be harvested after 10 months of planting.

N^o 2 section - Land preparation, Baining style. Divided again into (3) three parts - for harvesting.
1st part - to be harvested after 3 months
2nd part - " " " " 6 months
3rd part - " " " " 10 months.

N^o 1 section - To find out which style of planting has breed big Taro (Karim bik-pela Taro) after 10 months of planting.

N^o 2 section - To find out how many months should Taro be left in field after planting, and how many months should it be ready for harvest.

This who garden is to be observed closely every month for taro blight or any other disease affecting Taro.

Activities this month with sanitation, pigs, water sup.

- (A) Toilets: During the Community ^{Development} meeting (P.H.C) three (3) villages, on their Community Develop plan, list priority - toilets; all three village have to build 6 toilets each -

Villages: ① Parakaman : 6 toilets built already
② Senel : 6 toilets " "
③ Patum : 6 toilets " "

Following up Officer (Peter Morris) all toilets were being built within three weeks:

- 4 sq ft wide, 7 ft - deep. with roof and cover over holes.
- Other villages were advise to do the same - not started yet - due to other commitments.

- (B) pigs: Village people were advise to built fences for pigs - Under condition of pigs being killed around station area. have started already, to build fences.

Pigs destroying good garden.

Condition to be looked into some other times later.

- (C) Water Supply: Every equipments and material ready for construction of water tanks still waiting for Plumber/Carpenter and other material still at Rabaul - and to be shifted by air to Numeve yet - or if any change going to be made later on. Village people have to carry the materials from Ponsis to Numeve.

Thanks Very much
Respectfully Submitted,
Peter Morris.

EXHIBIT # 15 May 1985

NUTUVE H/Centre - written Report.

1. Patrols (a) Dates - 6/5/85 to 10/5/85.
- (b) Areas - Villages surrounding Nutuve station.
- (c) Villages - (1) Baturia (2) Orela (3) Kula
(4) Parakaman (5) Savel (6) Taravele.
- (d) Clinics done by Peter Morris + Isidor Srechi
Result - good.
- (a) areas - surrounding Field Clinics.
- (b) ~~Villages~~ Dates - 13/5/85 to 17/5/85.
- (c) Villages - (1) Bagitave (2) Birigi (3) ICE
(4) Piouu (5) Lalika (6) Gelioi
(7) Lampung (8) Moive (9) Tital.
- (d) Clinics done by Peter Morris
Results good.
- (a) Areas - KAPUENA (SUIKOL AREA)
- (b) Dates - 20/5/85 to 23/5/85.
- (c) Villages - (1) Kapuena and small surrounding villages.
- (d) Clinics done by Isidor Srechi

all above for purpose of Community,
Family and child health.
Result not very good.

2. Patrols Organized next.

- (a) Dates: 3/6/85 to 7/6/85.
areas: Villages surrounding Nutuve station
(Station Clinics)
- (b) Dates: 10/6/85 to 14/6/85
areas: surrounding field clinics
- (c) Dates: 17/6/85 to 19/6/85
areas: Mingo and Ora areas.
(Overnight Patrols)

AID Post.

May 1985

+ LAWIRI Aid Post - Still Vacant.

Visiting Officer - Sr. Mary Drum (D.P.I.)
Follow up on - (NATIVE OBSERVATION PLOT)
Taro garden.

ENVIRONMENTAL Health.

Health talks -

- ① Gastro Enteritis
- ② Nutrition + (Pigs).
- ③ Safe water.

Home Visiting.

Now the (N.C.C.G) Native Christian Community development Group, has another new programme. Once a week, a catechist and a nurse or a teacher and catechist, goes out to villages near by and hold prayer meetings and ~~at~~ at the same time give Bible teachings, Education talks or Health Education. The people seem to be interested, Nurses will try and go out regularly to villages & may sometimes sleep out in the villages.

Thanks - Peter Morris.

Staff meeting Date 11.7.85

AGENDA.

1. Re-Engage morning walk before receiving out Patient.
2. Reports and Reporting duties.
3. Pig Problem Including Nutrition.
4. Home visiting for adult education.
5. Re election of New Health Centre Board members.
1 each village or 1 for area.
6. First aid Post - Village and training of endemics.
7. Re arranging of clinic's roster books.

Meeting starts.

Peter Mannis opens the meeting - time 3³⁶ pm.

Points were read out.

1. The idea was brought up because people do not come to work anymore on the appointed day. This was talked over to the people & all agreed.
People come to get out Patient treatment so work before getting treatment and it seems to be working well.
2. At the last monthly written report we schedule the staff duty roster weekly, now change to monthly. Duty starts time 8.00 am.
3. We staff at the Health Centre thinks that pig is the biggest problem relating to Nutrition. During the clinic we find children with Anaemia (set below) and plenty of the children are very under weight.

We found that the nutrition of the children are very low. We have talked to the people about this and brought forward to them some ways to prevent the pigs roaming around and peepok around the place where kids play. all agreed.

4. Health Centre staff to go to one or two villages to visit the people and educate them on some problems we see.
5. Health Centre should have new Board members elected because the others were not reliable in doing what they were appointed for. Health Centre staff to check on them to see if they are doing their job, all agreed.
6. Punt was suggested because in some areas have to walk hours & hours to the health Centre to get treatment, sometimes they come and sometimes they don't and not getting adequate treatment.
7. The clinics register books to be rearrange because the estimated numbers of target group of children under 5 yrs is more. Children under 1 yr is 84 we try our best to work hard to reach that target but couldn't.

Meeting closed - time 4³³ pm.

EXHIBIT #17

Nutuve Community School,
Inland Pomio Community Govnt,
P. O. Pomio.

SUBJECT: THE LAST EFFORT.

The meeting was called on the 15.8.85 among the members of, NUTUVE CHRISTIAN COMMUNITY DEVELOPMENT GROUP to discuss the problem of low attendance at Nutuve community School.

The group has decided to take the last effort of EDUCATION AWARENESS CAMPAIGN INTO VILLAGES. The group has done two, so far already, but no positive response was taken. HERE IS OUR WEEK PROGRAMME.

- Monday _____ 19.8.85 . Magitave, Mirigi, Taravele. villages.
- Tuesday _____ 20.8.85. Paturu, Senel, Parakaman villages.
- Wednesday _____ 21.8.85. Piova, Ire villages.
- Thursday _____ 22.8.85. Bakuria No 1 & 2, Kula Orela villages
- Friday _____ 23.8.85. Geliol, Lalika, Mongo villages.

The group has come together to discuss some solution in regard to low attendance at the school.

MEETING FOLLOW UP PROJECTS.

The members of the group are given certain projects to look after as follows:

- WATER TANKS _____ PETER MORIS & PATRICK MASEA.
- ISSO RIVER BRIDGE _____ FIDELIS RUTE & STALAND LINDRUDE.
- GARDEN KAIKAI _____ JOE LELEPO & AUGUSTINE PANG.
- VILLAGE AID _____ ISIDOR & MARY AIEVO.
- PRES SALUS _____ CAMILLUS TATI.
- TOILETS _____ PETER SANIGE & NICHOLAUS.

The group agreed to produce reports on each project every two months when the group will meet again.

PRAYER MEETING PROGRAMME.

The group will meet every Wednesday once a week at 7.30 pm and every Saturday fortnightly to the village indicated below.

- KULA VILLAGE _____ ISIDOR & NICHOLAUS.
- BAKURIA VILLAGE _____ JOSEPH LELEPO & CAMILLUS TATI.
- PARAKAMAN VILLAGE _____ FIDELIS & SANIGE .
- SENEL VILLAGE _____ PATRICK MASEA & PETER MORIS.

These are the minutes of the last meeting of the, NUTUVE CHRISTIAN COMMUNITY DEVELOPMENT GROUP.

cc P. K. M. T. Yours sincerely,
Camillus Tati

DEPARTMENT OF EAST NEW BRITAIN

DIVISION OF HEALTH

EXHIBIT #19

LUKLUK LONG VILIS - HISTRI

APO NEM _____ AID POST _____ HEALTH CENTER _____

VILLAGE NEM _____ DATE _____

HAMAS MAN I STAP LONG PLES?

HAMAS MERI I STAP LONG PLES?

HAMAS YANGPELA MAN/MERI/MANKI SKUL I STAP?

HAMAS PIKININI KRISMAS BILONG OL I ANINIT LONG 5 YIA?

HAMAS PIKININI KRIMAS BILONG OL I ANINIT LONG 1 YIA?

HAMAS HAUS INSAIT LONG PLES?

DL PIPEL I SAVE TROMOI PIPIA WE?

HAMAS TOILET INSAIT LONG PLES?

I GAT GUTPELA WARA KLOSTU?

LUKSAVE LONG HAP PLES WE MOSQUITO INAP PUTIM KIAU LONG EN - I OLSEM WANEM?

NEM BILONG PIPEL I GAT T.B.

NEM BILONG PIPEL I GAT LEPROSY.

WANEM KAIN GRUP I STAP? (YUT, MERI, SKUL BOD, HELT BOD, VILIS KOMITI)

COMMENTS/ACTION PLAN/PERFORMANCE GOAL

DEPARTMENT OF EAST NEW BRITAIN

DIVISION OF HEALTH

EXHIBIT # 19

VILLAGE PATROL FORM

APO NEM _____ AID POST _____ HEALTH CENTER _____

VILLAGE NEM _____ DATE _____

OL I SAVE WOKIM WOK BILONG KLINIM PLES?
WANEM KAIN PIPIA I STAP NABAUT?
OL TOILET LONG PLES I OLSEM WANEM?
OL HAUS LONG PLES I OLSEM WANEM?
PLES BILONG KISIM WARA I OLSEM WANEM?
OLSEM WANEM LONG OL PLES WE MOSQUITO INAP PUTIM KIAU?
OL PIK I STAP LONG PLES? OL I WOKIM WANEM LONG OL?
NEM BILONG OL MERI I GAT BEL.
NEM BILONG OL MERI KARIM LONG PLES. (MAMA NA PIKININI I ORAIT?)
NEM BILONG OL MERI I KARIM LONG HELT SENTA.
HAMAS PIKININI I GAT KASKAS?
NEM BILONG PIKININI I BUN NATING.
HUSAT I SAVE KISIM TRETMEN BILONG T.B.?
HUSAT I SAVE KISIM TRETMEN BILONG LEPROSY?
HUSAT I DAI PINIS NA LONG WANEM?
YU BIN TOKTOK LONG WANEM WANTAIM OL PIPEL?
TAIM YU TOKTOK WANTAIM OL MAN O GRUP OL I GAT TINGTING LONG WOKIM WANEM SAMTING? (PROJECT)
YU MEKIM WANEM KAIN WOK WANTAIM OL MAN O GRUP?
COMMENTS

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EXHIBIT #20

NUTUVE COMMUNITY SCHOOLS,
INLAND POMIU COMMUNITY
GOVERNMENT

2ND-11-85.

THE CHAIRMAN,
PROVINCIAL EDUCATION BOARD,
CI- BOX 922
RABAU.

SUBJECT: "REPORT ON THE WORKSHOP HELD AT NUTUVE ON OCTOBER
28-NOVEMBER 1, 1985."

OBJECTIVES OF THE WORKSHOP ARE:

- I. TO INTRODUCE THE APO'S TO DEVELOP VILLAGE LEVEL PROJECTS USING AVAILABLE RESOURCES AND MANPOWER.
- II. TO EVALUATE AFTER 6 MONTHS THE PROGRESS OF THE NUTUVE AREA COMMUNITY ACTION PROJECT AND DESIGN WITH THE PEOPLE THE NEXT PHASE.
- III. TO DEMONSTRATE THE CONSTRUCTION TECHNIQUE FOR THE NEW FERRO-CEMENT WATER TANKS.
- IV. TO OFFICIALLY OPEN THE NEW AIR POST AT LAKIRI.

PARTICIPANTS.

GOVERNMENT TEAM.

HONARABLE MINISTER HEALTH. ~~MR.~~ KENNETH TOKILIK.
HONARABLE MINISTER FOREST. MR. PATRICK SAGIMA.
MR. PONDALA POHAI. COURSE COORDINATOR.
MR. LAWRENCE TURRES. HANDSIDE FOUNDATION.
MISS PAULINE LANSDALL. PROVINCIAL NUTRITIONIST.
DOCTOR BOLTON PROVINCIAL SECRETARY HEALTH.

MISSION TEAM.

REV. FATHER M. WITWER. POMIU PARISH.
SR. MARY DRUM. AGRICULTURE.
SR. ROSESALIND. MISSION RELIGIOUS INSTRUCTOR.
MISS. ELLEN VOR DER BRUEGGE. MISSION HEALTH WORKER.

NUTUVE CHRISTIAN COMMUNITY DEVELOPMENT GROUP.

MCCAMILLUS TATI HIM NUTUVE COMI SCHOOL - PRESIDENT.
MR. PETER MORRIS MAKE NURSE VICE-PRESIDENT.
VILLAGE LEADERS REPRESENTING EACH VILLAGE.
MR. STELLAN LINDRUD. S.I.L. MAN.

Here are the topics for the three days in which I took part. The days are as follows.

Tuesday, Wednesday and Thursday.

On Tuesday. 29-10-85 to Thursday 31-10-85.

Mr. Lawrence Torres gave his talk on performance appraisal which the APO's must perform to the best of their ability.

Mrs. Ellen ~~Star~~ Vor der Bruegge talked on community diagnosis which all the APO's should be able to do.

Water tank demonstration which to show the people the new types of tanks.

We then went on to review the Problems Identification/Action Plan which has been done in April this year. One of the main problems we talked about was the SPI Base Camp at Natue, which one of the main needs of the people and first priority on the Action Plan. The next one was the water tanks to be installed in the villages concerned. I and Mr. Peter Morris presented to the participants the Natue Community projects which the group was much involved such as, water tanks, Natue SPI Base Camp, Natue airstrip, toilets, school etc. To complete the Tuesday session we ended the day by evaluating the Natue Community projects.

On Wednesday morning I went over to Labiri with the two ministers and two representatives from the Mission team. I was invited by the Labiri Aid Post Board to be one of the guest speakers. I also passed on the information about the new proposed school at Labiri which I got all the information from Education Planner.

In the afternoon on Thursday the 31-10-85 the team came back and started the new Natue Community Development Action Plan. The very last thing was a Question and Answer session and comments by Government officers. This afternoon session then brought us up to 5.30 pm. This was the report on those three (3) days which I took part. That's all about the reports on the workshop held at Natue.

One copy - Mr. Stanley Abuda - Inspector of schools Palmaral.

One copy - Provincial Education Board.

One copy - School file

Camillus Tati

PALMIALIAL
PMB RABAU
EMB Province

10 December 1984
AA/2-9-1/ab
A Aua
District Manager

President
Christian Community Development
Group

Nutuve
PMB Rabaul

RE: YOUR FORMATION OF A SELF-HELP COMMITTEE

I like to take this opportunity to congratulate you and the newly formed committee in your endeavours to establish a self-help scheme to genuinely tackle the existing problems in your immediate area there. I must admit that the government attempts at times has been very poor over the years and this will still be a handicap in the years to come. None-the-less perhaps our possible solution is the step which you have taken in which your committee becomes a reconnaissance group identify and doing things in your own little way forces the government to do likewise.

Mr President, I would like to make myself available to assist in anyway, please do not hesitate to inquire.


ALAN AUA
DISTRICT MANAGER

cc Miss Helen Vor-der-bruegge
P O Box 58
KOKOPO

*Submitted for Camillus Tati
along with Christian Workshop report
16 May 85*

EXHIBIT # 22

Nutuve C/School
Inland Pomio
P.L. Pomio

72-4-85

The Provincial Education Board
Division of Education
P.O. Box 922
Rabaul, ENS

Subject: "Nutuve Christian Community Development Workshop"

Participants:

- A. Village Leaders and Interested People in the Nutuve Community
- B. Local Politician - Hon. Minister Patrick Sagima
- C. Provincial and District Government Staff

Moses Turbaret	First Assistant Secretary ENS
Alan Maa	District Manager Pomio
John Masueng	CIC Com/Dev't. Pomio
Casper Fiek	CIC Dr I Hualu
Allan Rukie	CIC U/STAFF
Camillus Tati	H/H Nutuve CID - Rep. Education Dept.
Stanis Hahai	CIC Pomio Forestry
Camillus Hala	Communication Services
Malcolm Bolton	Assistant Secretary Health
Dr. Steve Kasa	Businessman Pomio
John Golpak	Businessman Pomio
Pondala Hahai	Supervisor Com/Health Service
Harold Devon	CIC Pomio Health Center
- D. Catholic Church Staff and Representatives:

Fr. M. Wittwer, M.C.	Parish Priest Pomio
Dr. Helmutrade, M.C.	Health Secretary
Dr. Rosalind Cairns,	Education Coordinator
Dr. Mary Drum, M.C.	Agriculture/Food Technologist
Nata Ornered	Nutritionist
Ellen Vor der Bruegge	Health Planner
Peter Horis	Nurse Nutuve Health Center

Nutuve Health Center and Mission Station Staff Members

"Objectives of the Workshop"

- A. -to encourage community participation
- B. -to listen to people's worries
- C. -to tell the community what services are being offered to them
- D. -to tell the community what development plans are for the area
- E. -to help the village people to design their own Community Development Plan

In Objective "C" this is what I presented:

- a. Education Department - Provide teachers for the school

- D. Provide school materials
- E. Education for the children of Nuluve Community
- F. Responsible for administering of funds to the school
- G. Inspectors visit the school
- H. Eleven students at Palanimal High School and Madang Teachers College

In Objective "D" this is what I presented:

- A. Provide NIST Lark for teachers - Inservice for new ideas
- B. Test Plan (Validation of Test Questions)
- C. Analysis of Cns. 1, 5, and 6 test papers which leads to more constructive teaching.

"Problems Faced at Nuluve C/School"

- A. Continuous Rain in the area
- B. Absentism by the children

These are the main factors contributing to lower standards of the children's education. A village leader from Lakiri Village requested a new school to be opened in his ward. Here are his reasons:

- a. The distance from Lakiri to Nuluve is very far.
- b. The lives of their children are insecure.
- c. The big river is dangerous to their children when flooded.

I told him I will take the request to the education authorities in Rabaul. The Assistant Secretary Mr. Moses Turbarot also helped me to explain the channel of how to open a new school. He added that things don't come overnight but it takes time and money.

Somebody raised the question, will it be possible to transfer the school from Tuka to Lakiri because money and materials being allocated for them are not being used. I said I do not know but I will refer the question to the PCB for their decision.

GENERAL COMMENT:

The workshop itself was one of the first workshops ever held at Nuluve Community. I found it interesting because it gives those who attended an opportunity to see the lifestyle of the people and to prepare to listen to the people's problems. It also enabled the government officers, missionaries and people to come and exchange ideas and to work together toward the development of less developed areas. I personally felt very low because there was no one representative from the top authority in education. This is because education has done a lot of service in the remote areas of this province. Therefore, for this reason there should be a representative from the education department in future workshops like this.

Finally I would like to say that I have done a lot to contribute towards the successfulness of this workshop. Here is the report of what the workshop was all about. A copy of the Nuluve Community Action Plan is also attached to this report.

That's all for your information.

Yours sincerely,
 Camillus Iati, U/II Nuluve C/School

/avb

APPENDIX C

Muela Documentation

EXHIBIT #1

C.C.A.G.
MUELA:

MINITS!!

C.C.A.G.

MUELA:

CHRISTIAN COMMUNITY AMBASSADOR GROUP:

31-5-85.

FIRST MEETING:

4:30 Pm. Mr. Jerry-Williamson Openim Meeting lng pra.

NOMINATIONS:

PRESIDENT- Mr. Sabastine-Saibunga.

V/PRESIDENT- Mr. John-Beni

SECRETARY: Mr. Alphonse-Key.

MEMBERS AND REPRESENTATIVES:

- | | | | |
|-----------------|-----------|--------------------|-------------|
| ① Peter Iliwa | } Health. | ② Jerry-Williamson | } Education |
| ② Flora-Langao. | | ③ Marcy | |
| ④ Caspar-Plek | } D.P.I | ⑤ Bonifacio Diako | } Church. |

Meeting Open:

Item 1:

Group bai ego out lng ol ples na mekim
pra wantaim ol manmeri:

Members: Further discussion lng chipela.
mipela i tik bai tilim ol group lng tupela
harp na bai ego out lng mekim pra.

Chairman: Tilim ol members lng group.

Group 1: leader: ① Sebastine (President)

② Peter Iliwa

③ Alphonse-Keh.

④ Btascius - (okela katiket).

group 1 bai igo mekim pra lang Talive.

Group 2: leader: ① John-Beni (Vice President)

② Jerry-Wellunion

③ Caspar - Plek.

④ Bonifas - Diuko (Katiket)

⑤ Flor - Langao.

⑥ Marry.

group 2 bai mekim pra lang Toge (Mula).

Na tu mipela i tk bai group mas practice to lang of Sing Sing lang Sundays after Sunday Service.

Makim ^{day} taim bilong igo wokim pra: Na mipela i makim Wednesdays. Na tu Sapes work i wait bai makim narapela day moa na bai 2-pela day.

Makim ^{Taim} ~~day~~ bilong meeting bilong group: Na chairman i tk bai meeting stap lang olgeta Fortrait wks. (twice a moment). Na lang day bilong

meeting em mipela i tok bai stap na ol members i decide
paetain. (bai matim day bilong meeting long Monday).

Sr Roselyn: I askim group Sapos ol laik bai em
givim lik lik proa Inservice long Monday.
Na ol group i wait long dispela ting ting bilong
Sr Roselyn.

Name bilong group: Chairman moavin na tok bai
bai kamapim name long Monday behind long Inservice.

Item 2:

Village aide: (givim supply long Marasin 190
long ples).

Na dispela em group i tok bai 2nd
project bilong em. Taos mipela i tok bai 2-pela
wok wantain mas start.

Peter Iliq: I tok bai wait taos long house ~~mas~~
Marasin, Sapos huse i pinis bai health Centre
i Supplaim Marasin. Project bai stap
long Malboni, na bai t-pela tu long
Marivu.

Na group i hamraes tu bai yot lik lik opening
long huse marasin Sapos i pinis.

Ol members 1 htk bai ego lng meeting lng Malb-
oni- lng Sunday:

First project- em bai uskim praec lng wan wan fles.

Start lng Talive na Tige:

Second " - Woxim Village aict. (gwin Marasin 190
lng fles) em bai lng Malboni na Marvus.

C/Buisness!!

Kemo bilong next group meeting bai kamap lng
Monday:

SECOND GROUP MEETING:

3/6/85.

3:45 Pm - Ol members 1 bung gen na Sister Roselyn
openim lng praec.

PREA LASEERVICE:

Sr Roselyn + gwin uklike laseervice lng ol group
members. lng how lng startin praec.

HEAD LINES:

- ① Kamap na Sinaun bi Ibi, holim ting ting lng Jios.
- ② Start- lng name bilong Papa. Son and holy spirit.
- ③ Liola - c aulin praec or sing sing.
- ④ Read- Stori lng good news.
- ⑤. Aulin uklike you ting egat meaning.

⑥. Haeait i laik bai em outlin praec bilgeni yet.

⑦. Lida i pinis long praec or long long Sing.

Inservice i pinis Chairman i obin hap,
meeting bilong last meeting:

Secretary: Kolim out itemo bilong last meeting.

⑧. Name bilong group: Ol members i givin out
name ol i tingim: bilong group.

Miss Ellen i movim na i tok map bai givin
or vote long name taim bilong Kaitkai,
Na ol members i agree long dispela.

⑨. Day bilong wokim meeting bilong group: ol
members i makin Friday.

Long every fortnait Fridaye bai igot meeting
bilong group (twice a month) Dispela i pas
olgeta members i agree.

⑩. Taim bilong startin first project: (praec service)

Ol members i makin bai long Wednesday
long next week long 12th June 1985.

④ Taim bilong Starlin Second project: (Villageais)
Im bai start after long house i pinis na bai
wokin liklik opening pastarin. Bai start past
aim long Marlboro. Behind bai go long &
Mariva.

Items Pinis!!

A) Business:

Miss Ellen, requestin bai of group, putin
liklik sign long haus Marasin long Marlboro.

Chairman: Movin na i tek bai meeting close
behind long of members, Uthin name balong grou

EVENING:

7:30 Pm: after long kaitai -

Chairman, askin of members bai vote long of
names of i makin,

Miss Ellen Volunteer long Countin of votes:

7:35 Pm: Chairman ~~de~~ declare name of
majority of kaitai.

Na name ev. CHRISTIAN COMMUNITY AMBASSADOR GROUP.

Of orapela members, agree long dikepela name bai sta

7:45: Pm.

Second meeting, i

Close!! Thanks:
C.C.A.G. Sec:
Mr. Pkt

Thanks.

C.C.A.G. Section

Self

Mr. Alkhonek

EXHIBIT #2

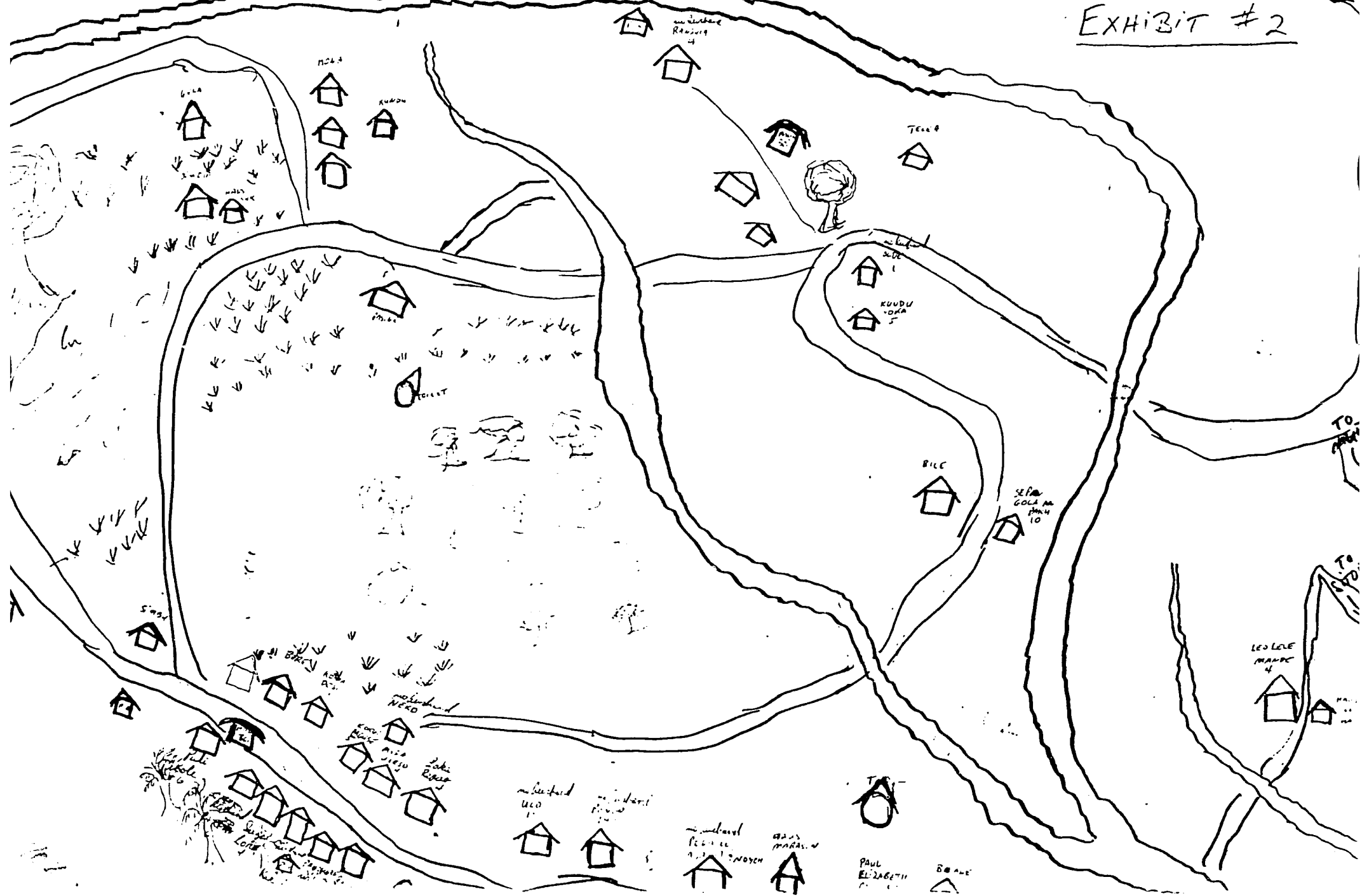


EXHIBIT #3

Roman Catholic
Church Mile
Village Pakia.
Inland Pomic
C-1 Parish
Uluwara.

24.7/85.

Dear Rev Sr. Roseline:

Now you take gut
morning tau lang you: Sr: Ma God i
blessim you lang work blang you:
yes Sr:

Mi laik tok save lang you
dosome: el yangpela Mei blang Bua
eli onit na hamaos tau lang Formin
vampela group blang el: el Mei blang
Village PAKIA:

No blang el: 22 Mei Ma
Van dan i makim givim lotoa: lang
Station group blang el:

Mi vantaim el
Meeting na eli makim PRESIDENT
ong el, Ma. Wais President: Na tu di

2,

oli Mahim, Trefure, Ma Secretary.
blong ol: Em Mem blong ol hia:

- 1) TOLANGO VERONIKA: PRESIDENT
- 2, GEGE TRUDENTINA: WAIS PRESIDEN:
- 3, PAULA KEGALIU: KUSKUS
- 4, ANTONIA TANKURME: TRESURE:

Em ol Member
oli mahim ol despela lain 4-pela Mem
hia bai oli go ps long group blong ol:

No2 Ripot

Ol Mem oli laik lainim samap:

Tassel oli no gat Money blong baiim
Vanpela Masin: blong Samap:

I gat 4-pela Masin i Stop long Pakia
Village tassel ol Papa blong ol Masin
oli no Onait long givim ol yangpela
Mem long lainim. Samap long ol:

Inogat oli Baganapim Masin blong ol:
Ol: Mi no save:

Bai huat i helpim
ol long Vanpela Masin?

Despela ashim

I-go lang Miss Helen:

Lang Mile Village
El yangpela weni, mi no Brait lang
Formida vanpela ~~At~~: GROUP blang
El: Lang Village MUKUKU NA MUKO
mi no Save lang. el: Diting hrai.
Kateket Robert Rivte i ked tok save
Lang Miss Helen:

Mi no Save gut
Lang Address blang Miss Helen:
na mi nait i Kame lang nye hrai
Sr Reline i tok save lang Miss
Helen:

Nanapela Sawting: Mi laik
tok save, closem:

Kateket Rivte Robert
i bukautim MILE STATION NAU:

Na mi LUKAUTIM PAKIA VILLAGE:

Bos bla mipela el Kateket i Benisim
Sampela lang mipela el Kateket blang
Paniak Utanmana lang 24:6/35:

God bless you: Sr. Reline:

Kateket: Melchior Malpe:

EXHIBIT #4

Village Pakia
Aisik Ulanawa
Inland Lewis

10:9/85:

Dear Miss Glen:

Hia i gat Sampela report blong mi ~~blong~~ i go long you. Na tu i go tu long Sister hia i kam wantaim you!

① Ol yangpela Meri blong Pakia oli gat hikpela laik tru long formim Vanpela group blong ol: Bai oli lainim work blong Somap: Na kain kain work blong ol Meri:

② Katebet i helim Vanpela Meeting wantaim ol yangpela Meri blong Pakia: Na oli tok olsem:

MIPELA OL MERI BLONG PAKIA I NO LAIK
bung WANTAIM OL MERI blong MILE:
INOQUT MIPELA I LES LONG GO OLTAIM:

LONG MILE:

③ 24 Yangpela Meri di givim nem
blong el piris long Stantim group
blong el Meri yet: Na tu di
13-pela Meri di givim Lot, Lot, blong
Stantim group blong el: Tassel mipela
i no givim name blong group blong
el Meri blong his long Pakia yet:

④ Miss Glen: Van Mi laik toksave
long you closem: Mi Kateket mi
work long Advosim el Yangpela
Meri blong Pakia Village.
Na Kateket
Robert Rinte i advosim el Yangpela
Meri blong Mile Mukulu na Meri:
Em tripela ples blong em:

⑤ Liklik Money di putim long group
inap closem K4:00 tassel: THE END
blong Van Van mun hai di workim
liklik Collection blong el:

⑥ Miss Elen: Long tingting blong mi hai el Meri eli mas formam 3-pela group blong el:

- 1 GROUP blong el yangpela Meri blg PAKIA
- 2 GROUP blong " " " MILE:
- 3 GROUP blong MUKUKU + MURO

⑦ Inojut hikain hai kros i Kawap long el papa mama blong el: MA el kain kain problem closem:

⑧ Vanpela tingting blong mi closem I gutpela Supos Miss Elen i mas bungim el people long Van Van ples na Meeting wantaim el:

Em tingting hia mi antim long you: ELEN:

God bless you tru na
Gut morning: MISS ELEN:

Mi Katiket MELAKIOT Malpe:

EXHIBIT #5

Village Pakia:
Roman Catholic
Church Mile
Parish Uluwanda

24: 11/85:

Dear Rev:

Sr. Roseline:

Good Morning

Sr. God bless you: Hia Mi Kutebet
Melchior Mape:

Mi laik tok save long Sr. Rosem:
tede yet mipela i pinis long loter, long
Mile, long de blong Kristus King:
el people blong Popela ples Wantaim
el Waim long Wantaim, long sedim
Sampela tingting long Kanap blong
Archbishop Albert hia long Mile:
No2

Tede mi, na sinior Head Master:
Steven Tutu:

Mipelai Witness Vote:
blong el yangpela Meri blong tupela

ples hia Mile Village na Pakia Village
tupela Meri di sanap Kandidat:

(Grade 6)

Katarina KUKI i Kisim \leftrightarrow 2 VOTE:

ANTONIA : TANKURME : i Kisim \leftrightarrow 11 VOTE

(GRADE 8)

So i lukluk olosem Anthonia Tankurme
blong Village Pakia i avinin Vote blong
Kamap Rep blong ol Meri blong
Inland Poni:

So: Mi kamamas mau
long youmi paivin despela tupela Meri
blong Kamap mau blong ol Meri blong
INLAND PONI:

MISS

(I) Anthonia Tankurme (GRADE 8)

VILLAGE PAKIA:

MISS

(II) KOMANTE \leftrightarrow (GRADE 8)

VILLAGE MUKULU:

R. Cath Church mile

Parish Ulaona

Inland Poni:

Ar. En tasol se despela tekave
blang tede:

Thankyou Ar:

God bless you:

Melchior Malpe:

Your respectfully

MUELA HEALTH CENTRE

PRIMARY HEALTH CARE ACTIVITY

MALARIA PROPHYLAXIS TO BAGO & MUELA COMMUNITY SCHOOLS.

GIVEN TO STUDENTS WITH ENLARGED SPLEENS FOR 3 MONTHS.

BAGO COMMUNITY SCHOOL CONFERENCE MARCH 1985


TOTAL STUDENTS - 53

NO OF SPLEENS - 11

SPLEEN SIZE - 1-8 FINGERS ENLARGED.

WE TEACH THE TEACHERS HOW MUCH TO GIVE - WHY - AND FULL COURSE FOR FIRST 3 DAYS THEN WEEKLY ON SAME DAY & TIME FOR 3 MONTHS.

SPRUE TO MUELA COMMUNITY SCHOOL.

FOLLOW UP AFTER ONE MONTH SPLEEN  ^{Decreasing} (GETTING SMALLER.)

MUELA COMMUNITY SCHOOL

TOTAL STUDENTS - 41

NO OF SPLEEN - 3

SPLEEN SIZE 1-5 FINGERS ENLARGED

VILLAGE AID TREATMENT FOR - MALARIA.

- SKIN INFECTION / SCABIES.

- WOUNDS

WE TRAIN TWO PEOPLE FOR THIS PROJECT FROM THE VILLAGE.

WE GIVE THEM TWO WEEKS LESSONS IN THE CENTRE.

THEY ARE STARTING WORK THIS MONTH JULY.

FIRST VILLAGE AID - MIBONI Village 2 HOURS WALK TO H/CENTRE

SECOND VILLAGE AID - MARBU Village 3 HOURS WALK TO H/CENTRE

FOR MALARIA TREATMENT TO START OFF WE ARE GIVING THE FIRST DOSE IN THE H/CENTRE AND 2ND AND 3RD IN THE VILLAGES AND IF IT'S WORK WELL THEY CAN START OFF THEMSELVES.

FROM THE TWO VILLAGES ARE HAPPY ABOUT THE TWO PROJECTS.

oic P. S. W.

MUENIYA H/C AUG 1985

WEEK 1 . 5-360

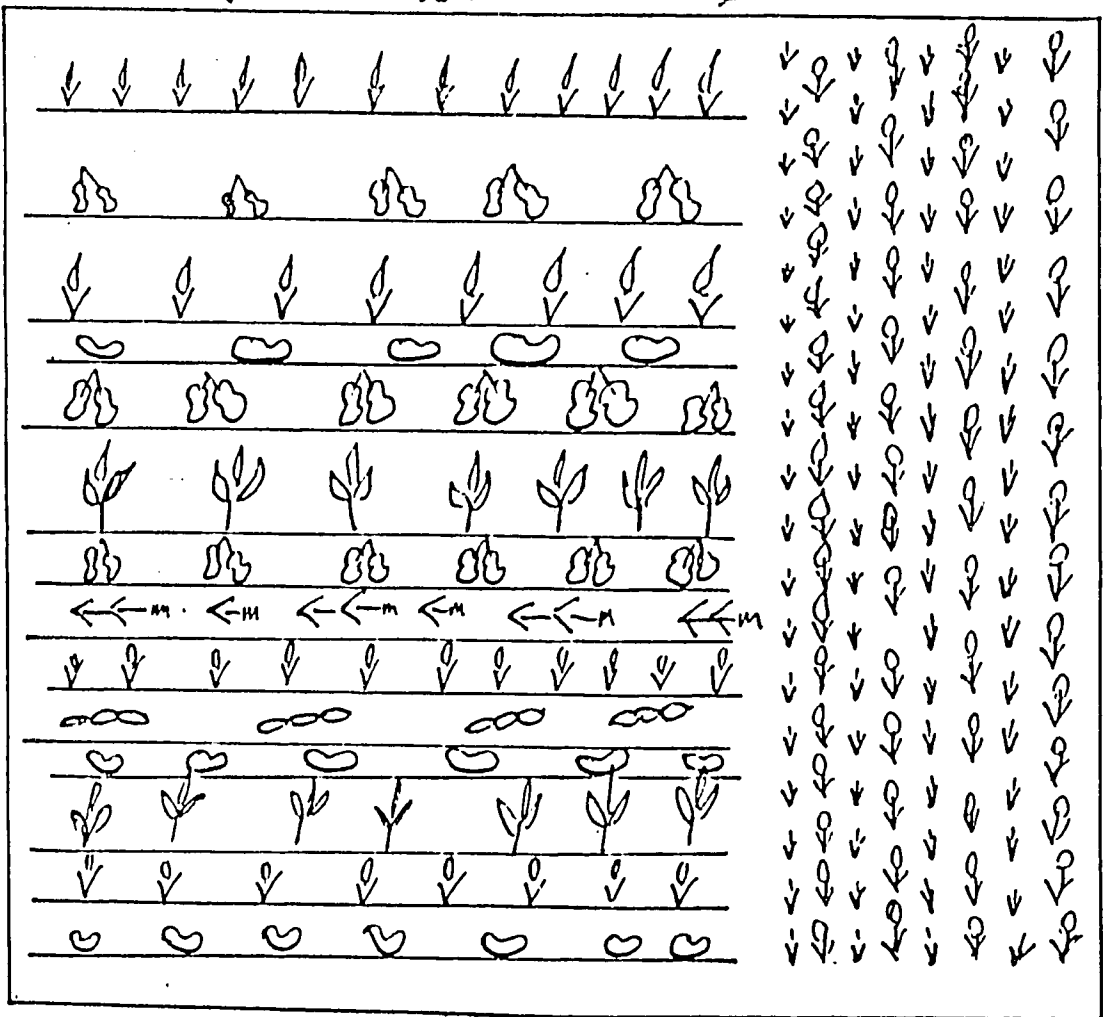
TUESDAY 5

PILOT PROJECTS NUTRITION GARDEN 2.6 cm x 2.2 cm

We the nurses of Muelia H/C made this GARDEN in the help of Sr Mary which she supply us in the seedlings. The garden is situated on the hill side beside the main food part so that every body passing by should be looking at it. It is fence & wire and bush materials.

This is How the Garden is set out.

← 2.6 CM →



Hill side

- KEY:-
- V - papaya
 - ♀ - corn
 - ←←←← - watermelon
 - [leaf symbol] - KUKABA
 - [pair of leaves symbol] - peanut
 - [pair of leaves symbol] - Beans
- JAN. FEB. MAR. APR. MAY JUN. JUL. AUG. SEPT. OCT. NOV. DEC.
- 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

7/5

APPENDIX D

Unea Documentation

WHOLE GROUP MEETING

DATE: 09-04-85

TIME: 4.15 - 5.40

BRIEFING

1. Briefing on Sub-Committees
2. Nominations of Chairman and Secretary.
3. Dates for Visits - sub-groups.

1. Members were briefed about the subgroups members. The type of approach they use during their visit.

2. Nominations were done and members elected are as follows

Chairman - Br. Alphonse

Vice - Ms Tabumpes

Secretary - Mr Solonsa

3. Dates for Visit - The following dates will be observed

1. 27/4/85 - The following villages will be visited - Makiri, Nibonde, and Rukabwoko

2. 18.5.85 - The following villages will be visited
Navandaw, Tamagone and P.Ketinerawe.

The programme was made to cater for
nurses who are on duty during weekends.

3. 24.5.85 - The whole group will meet again
for any reporting of their visits.

meeting closed - 5.40 PM, ...

EDUCATION WEEK REPORTThe Week

Every year a ^{Week} is declared in the month of September, to conduct education ^{Week}. This year it fell from the 9th to the 13th of September. This week is very flexible and has nil or little monopoly of the education department. This means that the planning and programming of activities for this week is entirely up to each respective schools. In many instances parents are not knowledgeable in the different aspects and changes in education. The activities of this week are then planned to suit felt needs.

Felt Needs

After the needs have been identified. The teachers and the members of the Board of Management meet and plan the weeks activities together. Here is an example of my school's education week programme and activities.

The programme and Activities

Time	Day	Activities
7:30-9:00	Monday	Assembly
9:00-12:00	"	Guest Speakers
		1. Simon Malu
		2. Luke Munguas
		3. Bro. Rayman Laupu
		4. John Banzak
		5. Gregory Mongi
		6. Herman Talungapua
		7. John Dako
		8. Fred Vili
		9. Fr. William
1:00-2:00		Informal Education - 2kegenelo
2:00-4:30		Public Forum

Day: TWO

8300 900	Tuesday	Assembly and Briefings on the days' programme
980 130	"	Classroom Visits by the parents to observe examples of lessons taught. And also to observe their pupils or children at work.
130 280	"	Lunch Break
280 \$15	"	Private consultation and forum with the parents and each respective teachers.
4.15 530	"	Introduction and groupings on Gregory 'Mongi' Mosen - Energetic Human Development.

Day: THREE

830 845	Wednesday	Assembly and Briefings on the days' programme and activities
845 1200	"	Gregory Mongi continued his session from yesterday. He left at 1230 in a plane to Hopkins
1200 150	"	Lunch Break
180 280	"	Education Display on curriculum, newsletters, the structural system of education, the school philosophy, examples of subjects we teach i.e. maths, English, Health, Community Life, Science, Religion and Expressive Arts, the school rules, The Board of management rules, The duty statement of the school council, the academic progress charts of the pupils etc. etc....
280 530	"	Community Concert - Our Communities put on 13 concert items.

DAY: 4

830 930	Thursday	School Mass - Fr. William was invited to see Celebrate this special school Dedication Mass. He didn't turn up. Our Catholic Secretary ^{had} had a Bible Service for us instead.
930 12.00	"	Public Forum - based on the education display observation from Wednesday.
12.00 2:30	"	"Grade FIVE QUIZ" CONTEST. We invited grade five from Vatukeye Community - our neighbouring school for this contest.

DAY: 5

830 1:30	FRIDAY	EXPRESSIVE ARTS FESTIVAL - All the four Catholic schools on Uvea Island staged this show to entertain the parents and to end or conclude Education Week and lastly to celebrate the 10 th Independence Anniversary.
-------------	--------	--

Agency representation

The agency representation is very disappointing. Our Catholic education Secretary sent his apologies to attend a special PEB session. Our parish priest didn't endeavor to attend for unknown reasons. There was no talks given representing the Catholic Church's role in education.

The Daily Lessons

Were all well busy and the enthusiasm shown by the parents was very, very good. It was the first time that such a week have been arranged. The activities planned were very interesting and aroused a wide of range of curiosity. The parents asked questions after questions to clear their doubts.

Parents participation

was very good and encouraging. They attended from Monday to Friday. They got involved in each respective classes helping their children in maths, written sentences, Reading, spelling words for their children and answering questions and also enquiring. They were very serious and they did try to learn as much as possible with in this one week. This is the essence that we look into and expect to achieve as contained in our school philosophy.

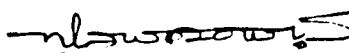
Youth Involvement

is a special mention. We campaigned widely and effectively for the youths to be involved as much as possible. As they are the parents of tomorrow. Many attended the daily lessons and participated meaningfully in various activities. Specifically the Community concert on Wednesday and the education display and the public forums.

Social Sessions

are sessions that involved the parents in group discussions and open forum. On Monday Bro. Raymond gave a session on the Full Development of a human being. A human being - Soul or spiritual Development, physical Development and social Development. Gregory Mongi also gave a more detailed talk on this topic on Tuesday and Wednesday. Until the plane arrived.

Conclusively, an evaluation of the week has been done. And we look forward to improving the 1986 education week. Hopefully, it may be the best.


SIMON SATHAMALU - Headmaster
ST. ELIZABETH
PENOPU COMMUNITY SCHOOL
BALI ISAND, W.N.B.P.

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Information Paper
Community Prayer Night

ST. ELIZABETH
PENOP COMMUNITY SCHOOL
BALI ISAND, W.N.B.P.

It was a realised felt need that the teachers need some spiritual enrichment of their lives. Apart from attending mass and involving in other church activities.

Because of this, the teachers of my school decided to set a side one ^{day} in a week to sing, pray, meditate on the bible and discuss and share our catholic experiences and faith together.

This prayer or christian community is called 'The Eucharist Community'. The group is led by myself and my wife, with our great experiences from the mundi Diocese on 'Basic Christian Community'.

This we see as our obligation as christian Catholics to share the life of christ with our fellow brothers and sisters. And secondly, to provide an atmosphere where simple Catholics pray with the bible, and thirdly a number of young people are now gradually joining our group for singing purpose and pray.

The bible sharing sessions are not in a manner that a leader gives a "Wartoro". No, it is done in a manner where individuals express his or her feelings on what ^{part} of the gospels relates to ones experiences and lives.

Our group is two months old now and we meet on Wednesday nights. The group is growing steadily in faith and number.

Penepo Youth Group

On the Sunday, 29th of September 1985, after mass Bro. Raymond Langu and I gathered the young people from our two communities

in Manopo and Penata Villages for an unofficial youth meeting. At this meeting it was decided to form or start a youth group. The idea was widely accepted and a youth group was born.

The name of the youth group is PENROPO youth group. The name is a combination of the ^{first} three letters of Penata Village and the last three letters of Manopo Village. The two villages in our community.

The official members of this youth group are not elected as yet. Bro Ray and I want to assist the group along till they are really ready to assume responsibilities.

There are few of the activities that the youth group have discussed to accommodate into their weekly programmes. The group meet once a week ~~with~~ as programmed and also to plan for the preceding week.

The activities include, sports, bible study, liturgy, singing, community activities, visitation, Guest speakers etc etc.

We are still in our infant stages and we'll encounter problems as we go along. We believe God will bless our efforts and we trust in him.

We believe this is one aspect of the whole development of a whole being of a person, as certified by the 'Christian Community Development' Committee. We will also be seeking advice from that committee as we progress.

In His Service

~~Abwocore~~

SIMON S. MALU

~~Headmaster~~
Penopo Community School
Mera Island.

EXHIBIT #3

Date: Monday 11th March 1985.

Committees: Chairman: Br Alphonses

Deputy Andrew

Mr Tabombos. Mr Alamani - Mr Kalage

Pastors mipela i makini chairman em Br Alphonses
na secretary - Mr Tabombos.

Na nambawan sambing mipela i makini em
ol de blong go visitin ol ples.

Date	Place	Time
March 15 th	Tamangone	4.00 pm
March 16 th	Navandau	6.30 - am
March 17 th	Makini	7.30 pm.
March 23 rd	Ketinarau	7.00 am
March 24 th	Mibonde	3.45 pm.
March 30 th	Rukaborchio	6.30 am
March 31 st	Committees will meet.	8.00 pm.
Tuesday 9 th Monday 5 th		4.15 pm.
April.	whole Group.	

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Namba to samting em de kai group i bung blong
wokim pre-latu.

Friday	19th	April ✓	6th	September
	3rd	May *	4th	October
	7th	June ✓	1st	November
	5th	July	6th	December
	2nd	August		

Time Closed: Quarter to 5
then

EXHIBIT # 4

Date: 1-4-85

~~Agendas~~ Five committees meet and discuss the matters to be brought forward to the big group.

Firstly Br. Alphonses and the secretary, has to group the members in to groups so they'll be working in each particular village.

A leader from each group will be selected.

Secretary will inform Ms Helen of the groups present situation.

The small groups will then select the date for them to go out and visit the villages.

37 Nurses on duty - not enough to cater for peoples need. - S

@ ~~Spent~~

community needs to be paid.

SUB-COMMITTEES

Nibonde	R/Boroko
Br Alphonse	Albina Sulima
Thomas Kambeli	(Peter Tatau) Leonie
(Agesta) Arnoldo	(Theresia Kalaga) Tuka. Tatau

Navandau	Tamangone
(Leonie) Theresia	(Paul Poka) Mr. Mrs Namani
(Oscar) Alfred	Theresia (Katican) Poka.
Leeba	Joseph, B. J.
Rose	Sr. Fidelma.

P-Katinerave	Makini
Devoku	ette Namani
(Tuka) (Tatau) A. Kave	Blendina
(Alfred) Katican	(Theresia Poka)
Theresia - V.	Nurs - Devoku
Agesta.	Nurs Arnoldo.

NID	OL PIPEL LG PLES	OL SAMTING LONG PLES	OL PIPEL PRASAT	OL SAMTING PRASAT	TRIM
<p><u>Group 1: Manopo / Penata</u> FISHING</p>	<p>Village Youth 10-15 Village Fishing Experts 2</p>	<p>Net : Locally made Canoes Fishing Gear Fishing Ground Land Building - Storage</p>	<p>Fisheries Officer - Kimbe Business Development Officer - Bali Population (Market)</p>	<p>Boat & Engine Freezer - Kero - Electric (Generator) Nets & Other Gear Housing Mat Loan K1,000</p>	<p>February '86 - Lead time (2 months)</p>
<p><u>Group 2: Penata - Zimam Nakogoro</u> SEMI INTENSIVE PIGGERY</p>	<p>Village Labour 20 Klinim Graun Kisim local post Village Workmen 2 Blong lukauchim pig</p>	<p>Graun Diwai Kaikai Moni</p>	<p>Didiman - Bali Business Development Officer - Bali</p>	<p>Rolls Fencing Wire Nails Iron Posts Timber Pig Food Moni - Council</p>	<p>Start August '86 4 months</p>
<p><u>TOTAL PROJECT COST</u> : K1,500 to be funded from village contributions and from local Govt. Council Funding</p>					
<p><u>Group 3: Malangai Kumburi</u> SEA WALL</p>	<p>Youth Groups 6</p>	<p>Sea rocks / Soil / Sand Canoes Logs Money K600</p>	<p>Engineer or Surveyor Sub District Coordinator</p>	<p>Money K1,500 Iron Bars</p>	<p>September '86 till September '88</p>

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NID	OL PIPEL LG PLES	OL SAMTING LG PLES	OL PIPEL ARASAIT	OL SAMTING ARASAIT	TAHM
<p><u>Group 4: Kamburi 2</u> Nasandau COPRA DRIER - PERMANENT</p>	<p>Carpenter from village Village Labour 10 (free) Clear Site Help Carpenter</p>	<p>Grain Moni K300.00 Stone Gravel Sand</p>	<p>Didiman</p>	<p>Maxi: K400 Rural Development Fund K1,410 Agricultural Bank House plan Tools/Nails/Wire Cement/Timber Kapa Transport Hire</p>	<p>March '86 till June '86</p>
<p><u>Group 5: Kefiamaue</u> Tamagone</p>	<p>Bung wantim na foktok lg kamapim moni K7,000</p>	<p>Copra + Cocoa plantations + arapala samting big Kamapim moni Driver Chairman</p>	<p>Didiman Business Development Officer land Surveyor</p>	<p>Bisnis Development Offic big Kism loan moni lg Bank</p>	<p>April '86 4 months</p>
<p><u>Group 6: R/Boroko</u> Makiri WATER SUPPLY</p>	<p>Village helpers 50 (free) Parish priest - coordinator</p>	<p>Land / sand / water / stones Kipoo contribution by villagers transport tools e.g. spade etc.</p>	<p>Plumber - Kimbe Engineer - Army District Coordinator First Assistant Secretary K5,000 Land Surveyor - Kimbe</p>	<p>Cement Water pipes fittings tanks money K5,000</p>	<p>5 months</p>

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EXHIBIT # 6

Date: Saturday 16th March 85

Place: Navandau

Speaker: Br Alphones.

Ol committee i wckim pre.

Devaku i explain long dogeta pipel long as ting ting blong despela rit na wckabaut.

Br. Alphones i autim now despela as tingting blong Kristian Community Development

Needs.

- 1 Gardening - Inter-cooping rotation
- 2 Nutrition
- 3 Water
- 4 Pigs
- 5 Soil Fertility.
- 6 Malnutrition
- 7 Land shortage
- 8 Stealing - peoples things
- 9 Women's Fund
- 10 Polio

- 11 Problem - Buiá - Smoke - Beer
- 12 Sewing for Women.
- 13 Family Planing.
- 14 Respect for Elders
- 15 Road Maintainance.
- 16 Malariá
- 17 Traditional Customs - Dances
- 18 Social Activities
19. Business
- 20 School Children - Running Away.
21. Legio - Pre meetings - no gat hambak.
22. Old pipel.
23. Katikasme

EXHIBIT #7
Penopo Com. Center
C.M. Makiri
UNEA ISLAND
P.O. Kimbe, WNBP
4th/ Nov./ 1985

The Arch-Bishop of Rabaul
P.O. Box 414
Rabaul
ENBP

Dear Your Grace,
Greetings, we wish you good health!

We wish to submit an application through you to the office of the "Commission for Justice, Peace and Development of P.N.G.S.I. This application is for the money grant of the sum of twelve thousand kina (K12,000.00). We now wish to mention the purpose for this request.

Due to strong demand, we see the need to construct a community building for the population of one-thousand-five-hundred people (1,500). (This figure corresponds to the last census count). These people are the residents of Penata and Manopo Villages at Unea Island. This building would cater for three (3) projects, namely a community library, an office for two Ward Development Committees, and an aid post. This money requested for should cater for all building material, plus furniture for all three compartments. Non building materials like library books, medicine, paper and others.. would come from self reliant sources and other means.

This money we request for would have to be chanelled here through the K.K.D. (Kristen Komuniti Dvelopment) or C.C.D. (Christian Community Development) Office in Kokopo, Headed by Ellen VorderBruegge whose office address follows:

Ellen VorderBruegge
P.O. Box 58
Kokopo
E.N.B.P.

The following people would coördinate the construction of the building at the community level:

BITO Robert - chairman-Ward Development Comm., Penata
[Signature].....
TULU Linus - chaiman, Ward Devel. Comm., Manopo
[Signature].....
MUNGUAS Luke - chairman, school B.O.M.
[Signature].....
BITO Michael - W.D.C. minister for education, Manopo
[Signature].....
RAGA Julius - W.D.C. minister for education, Penata
[Signature].....

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VOGAE Charles - permanent resident, Penata, ex teacher
.....*Rogae*.....

BABAI Michael - permanent resident, teacher, respected
citizen.
.....*Michael Babai*.....

MALU Simon headmaster, Penopo Com. School
.....*Simon*.....

We hope, your grace, that you will kindly give your support
to our request.

We will willingly supply any further information if you so
request for it, regarding what we ask for.

N.B:

Also included are details giving support to our request, or
reasons for the need of our request.

Sincerely Your's

LAUPU Raymond : on behalf of the above committee

.....*Raymond*.....

STATEMENT A:

COMMUNITY LIBRARY - need based on:

- i) need for space and facilities for increasing number of Gr. 6 drop-outs to
 - : allow for general ongoing education
 - : continue studies through the C.O.E.S. scheme
- ii) more than 50% of the previously mentioned population (i.e. 1,500) are literate, and a library at their home ground would prove as a strong means of improving their literacy
- iii) visible sign of hope like a library is needed for the greater number of Gr. 6 graduates who don't continue to high school or any other formal institution for learning - these are so-called drop-outs which is a very disollu-sory term both for the parents and the student

STATEMENT B:

WARD DEV! COMMITTEE OFFICE - need based on:

- i) need for meeting ground for two Ward Dev. Committees to have dialogue and plan constructively together before, during, and after implementing ideas
- ii) facilities and space is needed for non public servants but educated citizens to give a hand to Ward Dev. Committee members in areas that they are lacking in
- iii) safe place is needed where records of W.D.C. projects and other relevant documents can be kept safe in filing cabinets

STATEMENT C:

AID POST - need based on:

- i) there is an increasing need to have **primary** medical center where minor health problems can be prevented from becoming disasterous - this applies to infants, children, and adults likewise
- ii) make use of trained nurses with certificates who are jobless - we have two at the villages
- iii) a center equiped not only with medicine but also with material to educate the people about matters concerning hygiene

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REQUIREMENTS: A

TOKTOK BILONG GRUP.

. This list follows the original format as recorded on the board by Gregory Mongi on the 11th of September 1985 as the different groups reported on their discussions.

- 1. Haus Tisa - Material
- 2. Haus Lotu - Moni
- 3. Komiuniti/
Secondary Education - Libreri, ino komik tasol
- 4. Wara - Drink/Nutrition
- 5. Aid Post - Health
- 6. Population - Giraun i sot
- 7. Vocational Senta - Skills to help family, community and culture.
- High Skul - Long Bali/witu
- Bringim developmen long peles.
- Namba bilong ol sumatin long Bali/witu.
- Katolik Skul
- 8. Bisnis - Managemen na success long Bisnis.
- 9. Laibreri - SAVE
- 10. STOP LIKA TRED - Wari long femili, society.
- 11. Transport - Salim products (communication)
- 12. Sport - Play graun long Fenata.

REQUIREMENTS: B

TOKTOK BILONG GRUP.

: Developed Form - following catagories by Br. Raymond Laupu based on REQUIREMENTS: A.

A: The different areas of concern

- a) Education
- b) Health
- c) Economics
- d) Land
- e) Religion
- f) Leissure

Cont. A:

<u>EDUCATION</u>	
<u>Concern</u>	<u>Nature of Aid</u>
1 Physical (non spiritual) - teachers house	funds for material
2 Spiritual (non physical) i) Community Secondary education - library - advancement of education for general public.	moral support funds direction
ii) Vocational Centre - skills in help: <ul style="list-style-type: none">• parents & family• community orientation• preserve culture	concern support funds
iii) High School - bring development - eliminate transport problems. - Catholic High School in Bali or witu	support communication funds
<u>HEALTH</u>	
i) water - needed at villages in abundance. - for drink or washing - source: VARI	new water pump or funds for maintainance.
ii) Aid Post - primary care for health of children, adults too.	advice; funds material-medicine

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Cont. 2:

<p><u>ECONOMY</u></p> <p>i) Successful Bisnis - management problems.</p> <hr/> <p>ii) Transport - consistent sales of produce - communication</p>	<p>advice aid: any other.</p> <hr/> <p>safeguard boat advice.</p>
<p><u>LAND</u></p> <p>- land shortage therefore: land disputes.</p>	<p>survey registration tribunal</p>
<p><u>RELIGION</u></p> <p>- Church buildings for both Penata and Manopo.</p>	<p>funds for material.</p>
<p><u>LEISURE</u></p> <p>i) Liquor trade</p> <p>: queries due to family and social problems caused by liquor sales:</p> <p>- Is it a sufficient means of leisure when weighed with the problems related to it?</p> <p>- <i>Can we stop it altogether?</i></p> <p>- Can the people (traders and consumers) be trained and formed to a better and healthier use of liquor? How?</p> <p>- Are government regulations helping at all?</p>	<p>principles regulations discipline EDUCATION</p>
<p>ii) Sport</p> <p>: Playground at Penata closer for use of Penopo School Kids- better alternative if improved (as contested by one group).</p>	<p>agreement of landowners; equipment for upgrading; <i>funds.</i></p>

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B: LATER DEVELOPMENTS

: 2 weeks after Greg's talk: **plans**

1. work-Shop - 21st-23rd October 1985

Venue: Nigilani Council Chamber

Attendants: West Bali, 20 names already collected,
more names still to come.

Speakers: John (co-ordinator)

: Br. Raymond Laupu

: Provincial Youth Co-ordinator

: President of Women's Council for Province

N.B: a) Same programme will be given for East Bali the week after, the place will still be chosen, 18 names already collected, more names to come.

b) Nature of Br Raymond's talks.

- Integral Human Development

- Particular reference will be given to REQUIREMENTS: B especially where Penata and Manopo people are concerned because the requirements are primarily theirs. I (Ray) plan to break them (Penata & Manopo) up into groups to investigate further into the requirements along the following guideline questions:

c) Guideline questions

a) What have we got (regarding any of the fore-mentioned requirements)?

b) What do we need and have not got?

c) How can we achieve what we need by

i) self help

ii) outside aid

d) How will the changes we bring about benefit the people

i) morally ?

ii) spiritually ?

iii) physically ?

WARD DEVELOPMENT COMMITTEE (WDC) AND KRISTEN KOMUNITI DEVELOPEMEN (KKD)

JOINT WORKSHOP — BALI ISLAND : NOVEMBER 22nd, 25th and 26th

- AIMS:**
- 1) To introduce the WDC Government structure to women and youth representatives at the village level.
 - 2) To encourage participants to give due attention to the needs of the whole person in Community Development work.
 - 3) To introduce participants to the necessary skills and techniques to successfully identify, plan and implement village based community development projects.

PARTICIPANTS: Twelve villages were each invited to send 6 participants, two each from

- a) WDC members
- b) women
- c) youth

Although all the villages invited were represented, not all sent 6 participants. A list of participants names is given in the appendix.

CONTENT:

Friday November 22nd: 1400 - 1530 ——— BRIEFING

Registration of participants, introduction to the workshop and brief outline of the main subject matter for the Monday and Tuesday sessions, i.e. 1) Government Structure 2) Council Administration 3) "What is a Man?"/ Women Development 4) Community Diagnosis 5) Project Identification, and 6) Community Involvement.

** Note re session 3: It was still hoped at this stage that Br. Raymond would successfully find transport in order to make the main presentation on this subject. This was not possible so a closely related but slightly different topic was treated in this session.

Monday November 25th: 1030 - 1630 ——— Sessions 1-4

The day commenced with a short prayer asking for the Lord's guidance on the work about to be begun together, recognizing in the words of Psalm 127, that 'If the Lord does not build with us then we labour in vain'.

SESSION 1 GOVERNMENT STRUCTURE : Johnny Ranzak, Sub District Co-ordinator

Explanation of the levels of government in PNG and the difference between those who ARE actually part of the GOVERNMENT — that is Political Representatives — and those who are employed to WORK FOR the GOVERNMENT — that is public servants/workmen. For example, the members of the ward development committee are the village level government, that is the spokesmen and political representatives of the people at the village level; while people such as the village court magistrates and extension officers, didimen etc., are workmen of the government at village level.

An explanation of the structure of the Department of WDE was then given. This was to assist participants to understand that the different government workers in the Province come under the responsibility of certain people, at the sub-district, district and Provincial headquarters level, and that it would be clearer which path of communication needs to be followed for the implementation of Govt. policy/ projects etc.

SESSION 2 COUNCIL ADMINISTRATION : James Sipa, Council Executive Officer

A simple explanation of the financial administration of the ward development committees. For example, it was explained that it would be the responsibility of the committee to estimate before the end of one year how much money could be

expected to be collected in the coming year from such sources as village head tax, fines levied by the village court, tax on cash crop earnings and then to decide how this money would be spent, e.g. how much would be spent on various development projects and how much on administrative costs of the committee. Such planning is called budgetting. It was noted that such budgetting was previously done by the Local Government Council but now the villagers had a greater opportunity to participate in decisions concerning village level development. But because this is a new step at the village level the Council executive officer offered to assist any of the ward development committees requiring help to prepare their budgets.

SESSION 3 ——— WHOLE/FULL DEVELOPMENT : Sr. Mary, ~~Christa~~ Kommuniti Development

In order to live, every man and woman has various types of needs. These basic needs of our life can be grouped into three main areas: physical, emotional and spiritual needs. It is important to remember that we have needs in all three areas which must be responded to in any community development work. We have to learn to work together to develop the whole person and not limit our concern to one area only, e.g. physical or spiritual needs. The New Testament passage of the temptations of Jesus was used to illustrate this (Luke 4:1-12). At the time just before he began his active ministry, his work among and with the community, Jesus clearly recognised these three basic areas of need in life and was tempted to either concentrate on one basic need, e.g. the experience of hunger, or to expect that these needs can or will be answered by 'Another', God the Father, without any real work or personal effort. But Jesus found that the path He, and we, had to follow is very different. It involves discovering what is already available within ourselves and our community and working trustfully with this to develop the life we have been given.

In a group activity, participants looked at lists of needs which had been collected in previous village meetings conducted by the Makiri KKD group and tried to decide which area of our life (physical, emotional, spiritual) each need was concerned with.

SESSION 4 ——— COMMUNITY DIAGNOSIS : Sr. Mary

A parable of a sick person coming to a doctor for help was used to aid participants to identify the main steps involved in a doctor finding out what sickness a patient has and treating it and thus the steps involved in community diagnosis for effective community development work. Just as the doctor has to take certain steps to find out just what sickness the patient is suffering from (e.g. examine patient, ask about symptoms, work special tests) so we need to do certain things in order to find out as much as possible about the community's needs so as to find the best possible answer to these needs. Each group then looked at one need on their list and tried to suggest steps that could be taken to find out more about this need e.g. asking the people their feelings, observing the situation, carrying out a survey, calling on the help of someone with special skills or knowledge.

Monday November 26th : 0830 - 1600 Sessions 4 - 7

The days sessions began with a short prayer led by Mr. Pius Ura.

SESSION continued:

A short input on one way to draw up a plan to answer the community needs we have identified/'diagnosed'; how to design a treatment or action plan for the community's development. The following questions need to be answered:

- 1) What work will be done by the local community?
- 2) What resources/'things' are available locally?
- 3) What people from outside the local community are needed to help?
- 4) What help or things need to be obtained from outside?
- 5) Time - When should the work commence?
How long will the work take?

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SESSION 5 PROJECT IDENTIFICATION :

Johnny Banzak

This followed on from session 4 and helped participants to understand the steps involved in planning a community development project through the correct channels in the Government structure. Groups within the community need to propose, suggest to the WDC those projects to be carried out. Projects which they believe will respond to the needs of the community. These proposals are then discussed by the WDC and listed in priority by the WDC according to which seems most suited to the community and most likely to succeed. The proposals are next presented to the appropriate Government officers who study them and if necessary carry out surveys/feasibility studies etc. to make sure the proposed projects are really suited to the local community and likely to be successful. After receiving these recommendations, the members of the WDC draw up a final list of projects to be submitted either for self-funding or council sponsored funding, depending on the overall project cost. Those projects for self-funding by the WDC can then proceed but projects requiring the sponsorship of the local government council must await approval or not by the Council. If the correct procedure has been followed, the appropriate Government officers will then supervise the implementation of the various projects.

SESSION 6 COMMUNITY INVOLVEMENT;

Sr. Mary

This was primarily a practical session in which participants worked in groups to write an action plan for a project which they wished to pursue in their ward areas. The short input for this session emphasized that those projects in which there is a high degree of community involvement both in project planning and implementation have been found to have greater success than those in which there is little community participation. In preparing action plans, groups were encouraged (before seeking outside assistance) to carefully consider what resources are already available in the community and how best these can be used for any particular project. The project action plans prepared are summarised in the table which follows. Although a little more detail is required in some instances, the groups worked well in the limited time available.

SESSION 7 BUDGETTING :

Johnny Banzak

At the request of the participants this was a further session on budgetting to assist the WDC members in the work of preparing their 1986 budget. Practical examples of preparing such a budget were worked on the blackboard.

SPECIAL SESSION : FINANCIAL SELF-RELIANCE :

Fr. William, Parish Priest, Umea

This was a simplified and brief explanation of the country's economy. Since Independence PNG has not had sufficient money from its earnings, e.g. from agricultural and mining products to pay for the materials and services it requires to continue the rate of development it wishes to take place. It has therefore borrowed money overseas to fund development projects. However a lot of this money now needs to be paid back and the main sources of income have not increased as much or as fast as it was hoped they would, e.g. copra, coffee and copper prices have all fallen in recent years and the gold mining has not proceeded as quickly as expected. The more money the Government has to borrow, especially if it is not yet able to repay its first loans, the more difficult it becomes. This means that although the Government may wish to make more funds available for development projects, it may not be in a position to do so. Therefore the more communities are able to be self supporting, the greater their chance of progressing, of developing. Where limited funds are available, projects with a high degree of community involvement and self-help, requiring only small amounts of external assistance are more likely to be successful in being approved and funded.

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CONCLUSION

The workshop closed with a final prayer from Fr. William and the sharing of kaikei by all the participants and teachers of Makiri Community school. A special word of thanks must go to the women of Makiri who looked after all the main meals during the workshop and Sr. Gerhardia for assistance with morning and afternoon tea. Thanks are also due to Mr. Otto Nomanfi and staff of Makiri Community school for making available a classroom for the workshop and for assisting in duplicating handouts.

Finally I would like to express my thanks to Mr. Johnny Benzak for the invitation to be part of this workshop and to all the participants for the wholehearted way in which they entered into the program.

May I encourage each of the ward development committees to complete the work on their 1986 budgets. Use the skills learnt during the workshop to identify community development projects to benefit all the people of your respective villages and in which everyone feels able to be involved. Representatives of the various youth, women, church and school etc., groups can assist in such project identification work by using the action plan forms to clearly plan for such community projects.

Holin tingting long dispela wok, i no wok blong sampela tasol, i no nupela wok o wok blg dispela taim tasol — Nogat! I wok blg yumi olgeta, i wok blong olgeta Kristen mammeri. Yumi olgeta gat wok blg kirapim na strongim laip insait long komuniti blg yumi.

Hamamas Kristus long yupela olgeta na gutpela taim i stap wantaim yu.

S. M. Drum MSC

Sr. Mary Drum,
Kristen Komuniti Development Tim.

Appendix: LIST OF PARTICIPANTS

- | | | |
|---|---|--|
| <p><u>Group 1</u> : <u>Mamopa</u></p> <p>C. Mui
K. Vatete
M. Laupe
B. Manguri
K. Panga (Kavei)
K. Panga (Keluku)</p> | <p><u>Group 2</u> : <u>Pematabotong</u></p> <p>J. Bamba
K. Male
Vagela Baule
Mary Kawulio
Palakiti Kawulio
William Bito</p> | <p><u>Group 3</u> : <u>Kumburi 1</u></p> <p>Tapale Liqomuni
Devoku Pakurorsi
Hendrick Magarve
Laupe Nale
Manguri Talingapua
Mangarve Ngate</p> |
| <p> : <u>Penata</u></p> <p>K. Kalago
Qoriki
Komboli
Catherine Tangai
Pengeti</p> | <p> : <u>Malagaro</u></p> <p>Bito John
Tavele Elisier
Qoropo Susan</p> | <p> : <u>Malangai</u></p> <p>Raymond Nauke
Pius Ura
Joseph Bito
Daniel Kantoma</p> |
| <p><u>Group 4</u> : <u>Navanduan</u></p> <p>Pius Taqoqola
Magumangu Pius
Peroro Ngate
Ialon
Kartare Mane
Boribori</p> | <p><u>Group 5</u> : <u>P/Ketimerave</u></p> <p>Vake Male
Michael Male</p> <p> : <u>Tamagone</u></p> <p>John Male
Egele</p> | <p><u>Group 6</u> : <u>Rukamboroko</u></p> <p>William Rave
Benny Manae
William Vugae
John Kawulio
Wilfred Yapale
Albert Nale</p> |
| <p> : <u>Kumburi 2</u></p> <p>Kolobolo Lunga
T. Ruku
L. Qeqila
M. Lomboi</p> | | <p> : <u>Makiri</u></p> <p>Petaki Moia
Raphael Buri</p> |

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APPENDIX E

Kandrian Documentation

KANDRIAN DISTRICT PRC/COMMUNITY DEVELOPMENT WORKSHOP

DECEMBER 2 - 5, 1985

LILIAN

OBJECTIVES

The objectives of the workshop are:

- a) to introduce & clarify for government officers and village people the WUE Ward Development System Structure
- b) to introduce and clarify for government officers and village people the role of government personnel, village committee members, and the village people themselves
- c) to develop individual village project plans
- d) to develop an overall Kandrian District Development Plan
- e) to establish integrated involvement among all government departments, and between Church and government organizations

PROVISIONAL PROGRAM

DAY ONE - Monday, December 2

GOVERNMENT OFFICER PRE-WORKSHOP TRAINING SESSIONS:

1. Review of WUE Ward Development System Structure
 - by Isidor Teli
2. Community Diagnosis
 - by Ellen Vor der Bruegge
3. Action Plan Design
 - by Ellen Vor der Bruegge
4. Individual Preparation of:
 - job description
 - past involvement in community development
 - present and future plans/ideas for community development
5. Presentation of Individual Papers
6. Role of Government Officers in the Workshop
 - facilitate group instructions and discussions
 - direct community mapping exercise
 - participate in and guide community diagnostic and action plan design

DAY TWO - Tuesday, December 3

COMMUNITY DEVELOPMENT WORKSHOP BEGINS SESSIONS:

1. Opening of the Workshop
 - Opening Prayer
 - Introduction of Participants
 - Workshop Agenda Explained
 - Keynote Speaker
2. Review of the WUE Ward Development System
3. Officers Present their Role and Involvement in Kandrian Development
4. Government Officers Instruct Ward Committee Members on their Role and Responsibilities
5. Community Mapping Exercise

DAY THREE - Wednesday, December 4

SESSIONS:

1. Community Diagnosis Exercise - Group Work
2. Group Presentation of Community Diagnosis
3. Action Plan Design - Instructions followed by Group Work
4. Presentation of Individual Village Action Plans

DAY FOUR - Thursday, December 5

SESSIONS:

1. Presentation of Individual Village Action Plans continues
2. Draft an Overall Kandrian District Action Plan
- clarify all roles and responsibilities
3. Set Time for reports, etc., Assign Leaders for each project, and
Schedule an Evaluation
4. Review Events of the Workshop
5. Closing Ceremony

P.O. Box 53
Kokopo, ENBP

15 December 85

Dear Kandrian District Workshop Participants,

Congratulations to each of you! You are part of an important step in the process of making a self-reliant local government council a reality in the Passismanua Gimi/Rauto area. By participating in the workshop at Liama you have demonstrated your willingness to join with others to build a strong growing community.

During the first workshop sessions, government officers carefully explained the Ward Development System to all the village leaders from Passismanua Gimi/Rauto. It is important that the decision-makers have a clear understanding of government and how it works. Everyone involved needs to know what are his duties and responsibilities and what help or assistance can be expected from others.

Then the workshop sessions turned to Primary Health Care. We all had a chance to learn and then practice some skills that will help us begin our work. Hopefully, we discovered that it is possible to work together to identify problems and plan what action can be taken to overcome them.

Enclosed is a report that reviews the sessions of the workshop. Study it, recall all we learned, and use these new skills in your service to others. Remember that PEC IS SOMETHING WE DO WITH THE COMMUNITY and not just discuss at workshops.

My thanks to everyone who participated in the workshop. I enjoyed meeting some of you for the first time and also visiting with old friends. I look forward to following the progress of everyone's work. Please keep in touch and let me or my teammates know if we can be of assistance to you.

All the Best,

Ellen

Ellen Vor der Bruegge

Health Planner - Vunapope

/evb

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KANDRIAN DISTRICT PRC/COMMUNITY DEVELOPMENT WORKSHOP

DECEMBER 2 - 5, 1985

LIAMA

OBJECTIVES

- a) to introduce and clarify for government officers and village people the "NE" Ward Development System Structure
- b) to introduce and clarify for government officers and village people the role of government personnel, village committee members, and the village people themselves
- c) to develop individual village project plans
- d) to develop an overall Kandrian District Development Plan
- e) to establish integrated involvement among all government departments, and between Church and government organizations

PARTICIPANTS

1. Provincial Government Representatives

Isidore Teli - Special Resource Officer for District Services
Francis Aton - PRC Coordinator

2. District Government Representatives

Penny Haroro - a/Assistant Secretary for Kandrian District
Eugene Jeromo - Assistant District Officer
Edie Crai - District Business Development Officer
Lucas Rove - District Rural Development Officer
Sovi Wawa - District Forest Officer
Robin Ball - Medical Officer
Augustine Lories - School Inspector
Yata Taria - Nutrition Officer
Solite Mura - MEC
Baldon Aro - MEC
Isidor Vahne - Headmaster/Docti
Sue Ball - Nurse/Midwife
Wesly Bilis - Urin Community School
George Teli - Headmaster Dauring
Phillip Wolons - Headmaster Liama
Thomas Lolis - Headmaster Pomuga
Eius Yonatale - Headmaster Aka
Harrison Wapley - Headmaster Lajupgkung
Lesli Molola - Headmaster Amua
Dominic Loores - Kandrian Vocational School
Kathi Williams - Kandrian Vocational School

3. Mission Representatives

Sr. Mary Drum, MSC - Food Technology
Sr. Rosalind Cairns, MSC - Education
Ellen Vor der Druemme - Health Planner

4. Other Agency Representatives

Marie Tyler - Provincial Nutritionist MSP
Josephine Felis - Small Livestock Extensionist, Kenyanya, Morobe
Maria Beenen - Manager of ANCA Nutrition Project, Kenyanya, Morobe

• Village Representatives

CENTRAL PASCISMANUA

Anton Airep
 Mangol Aking
 Joe Karu
 Igis
 Toliam
 Takonio
 Genang
 Inime
 Paul Ilemio
 Hagkli
 Karanie
~~Leantok~~
 Peter Murit
 Lilitik
 Bernard Fosai
 Tomli
 Alphonse Koiang
 Joseph Salang
 Paul Warhot
 Patrick Aerang
 Mikililio
 Miurli
 Jack Kalk
 Peter Wokmak
 Wasa
 John Maili
 Bruno Jekio
 Karoun
 Iango
 Markus Vengu
 Paul Misangio
 Karl Malungli
 Makum
 Letu Masio
 Lalai
 Sarinli
 Alois Lang

GIMI

Andrew Kadula
 Fius Arung
 Michael Irio
 Jacob Maiang
 Peter Paleng
 Andrew Fangelo
 Simon Ugu
 Thomas Rungio
 Thomas Favolong
 Raphael Mining
 Fius Roprop
 Andrew Novor
 Peter Rengio
 Simon Arek
 John Sasio
 Rengio
 Katetio
 Senaing
 Tomungul
 Mark Kapong
 Sudli Andrew
 Francis Windrong

RAUTO

Rosea Langen
 Anton Yaring
 Paul Teksi
 Ben Apranung
 Peter Vuru
 Paul Sengle
 Leo Laong
 Lingling
 Ambrumio
 Avel

ASENGSENG

Liklam Sabak
 Lukwuali Liheli
 Tihval Sulum
 Sukul Rita

KAULONG

Aros Olge
 Ululu Heli
 Vincent Wokmak
 Anton Fail
 James Nockli
 Kani Lieng
 Markus Tomalio

FALAN

Kinme Romin
 Joseph Utli
 Angren Sekpo
 Ulelior Tahno
 Paul Korpi
 Janli Hengi
 Peter Lemio
 Simon Lemio
 Lukas Tipli
 Kuach Henry
 Pasimle Kiamli
 Tuka Henbo
 Likiiek Nihenbo
 John Pitsili
 Lilngin Paul
 Sepi Leli

WORKSHOP SESSIONS

Monday, December 2

GOVERNMENT OFFICER PRE-WORKSHOP TRAINING
 SESSIONS:

1. REVIEW OF HISTORY OF DEVELOPMENT OF PNC IN PNG
 by Ellen Vor der Bruegge

The opening session traced the development of Primary Health Care (PHC) from international to PNG National, Provincial and District level implementation schemes. A time line was used to follow the events which have occurred in PNG. The meaning of PHC which includes the three aspects of service, structure and approach was explained. Meaningful implementation depends on political commitment, comprehensive planning and a training program.

2. REVIEW OF THE WARD DEVELOPMENT STRUCTURE
 by Penny Karoro

The formation and design of the WNB Ward Development System was outlined by the acting Assistant Secretary. The areas of priority and aspects of the budget were covered. The present situation involving council and non-council areas was explained.

3. COMMUNITY DIAGNOSIS/ACTION PLAN

by Ellen Vor der Bruegge

The skills used to diagnose the sickness of an individual patient can be transferred to diagnosing the problems of an entire village community. All of the social, political and environmental factors must be considered. There are ways to get the community interested and involved in defining their own problems. Some of these techniques were demonstrated and practiced.

There are also many ways to look for problems in the community. Some are formal using health center records and ICA clinic books, surveys, and questionnaires. Others are less formal and use our eyes, ears, nose, hands and common sense. Once the problem is identified, a clear plan of action is the best way to solve it. Simple, easy ways to do this were explained and demonstrated.

4. REVIEW OF PROVINCIAL GOVERNMENT ROLE IN WARD DEVELOPMENT SYSTEM

by Isidore Teli

The fuller picture of the ward structure was presented by the former Kandrian District Coordinator. He described the plans and projects which are being developed at the provincial and national levels to assist the development of the area.

5. ROLE OF GOVERNMENT WORKERS IN THE WORKSHOP

by Ellen Vor der Bruegge

Each government worker was asked to prepare a presentation covering three areas:

- a) their job description and responsibilities to serve the people.
- b) their past involvement in the district development.
- c) their suggestions for joint government/community activities to promote development.

It was also explained that during the workshop they would be asked to:

- a) facilitate group instructions and discussions.
- b) direct community mapping exercise.
- c) participate in and guide community diagnosis and action plan design.

Tuesday, December 3

COMMUNITY DEVELOPMENT WORKSHOP BEGINS

SESSIONS:

1. OPENING CEREMONY

- Opening Prayer by Fr. John - Anglican Church Priest
- Introduction of Participants
- Workshop Agenda Explained by Ellen Vor der Bruegge - Workshop Coordinator
- Keynote Speaker by Isidore Teli - Special Resource Officer, Kinbe

2. REVIEW OF THE WARD DEVELOPMENT SYSTEM

by Isidore Teli

A clear, careful explanation of the new Ward Development System was given. How the system structure operates, who is involved, the role and responsibilities of the government and the people were all described. Likewise, the procedure for becoming a local government council area was outlined. Ample time for questions and answers was given.

3. GOVERNMENT OFFICERS PRESENT THEIR ROLE IN KANDRIAN DEVELOPMENT

by Eugene Joromo - Councilor

Lucas Rovi - Economic Services

Robin Ball - Health Services

Augustine Lonies - Education

Isidore Teli - Community Services

Following the categories used in the Ward Development Structure, government representatives described their job responsibilities. Each was asked to review what services the government has already provided in

the area and also give ideas for possible future joint projects involving the people.

A second topic covered by each speaker was the role and responsibilities of the respective ward committee members. Again time was allowed for questions and answers.

5. COMMUNITY MAPPING EXERCISE

by Ellen Vor der Bruegge

All the participants were divided into 6 groups. They were given the assignment to put into a picture the information they had collected from their communities. Each group drew what was good and should be encouraged to continue in their place as well as what was not so good and should be changed.

Wednesday, December 4.

SESSIONS:

1. COMMUNITY DIAGNOSIS EXERCISE

by Ellen Vor der Bruegge

Using the community maps drawn the previous day each group reconsidered the situation of what to develop or change in their community. The five areas of responsibilities for the ward committee members were kept in mind and how these leaders could become involved in the solution to the issues raised.

2. GROUP PRESENTATIONS OF COMMUNITY DIAGNOSIS

Each of the 6 groups selected a "mans man" to present the results of their mapping and diagnosis exercises. The community maps were used to illustrate the points made. The result was a clear overview of each village growing in the area and a concise statement of strengths and weaknesses in the various situations. Time was given for questions and answers. It allowed everyone to get a much better understanding of their own problems as well as the difficulties faced by other people in the area.

3. ACTION PLAN DESIGN

by Ellen Vor der Bruegge

A simple method to help groups plan the action to be taken to solve their problems was described. It involves answering the following:

NEEDS	LOCAL	LOCAL	TECHNICAL	OUTSIDE	IMPLEMENTATION	LEADER
	MANPOWER	RESOURCES	ASSISTANCE	RESOURCES	TIME	

A clear picture of everything necessary to address the problem is thus given. Everyone knows what is involved from each of the categories. It becomes possible to then decide which need has top priority and get a responsible commitment from the government and the village communities to reach the planned solution.

4. PRESENTATION OF COMMUNITY ACTION PLANS

Again each group appointed a "mans man" to present the action plan designed for each area. The participants did a good job of filling in each column and talking about what they could do to solve the problems of their communities. A summary of the action plans is attached.

Thursday, December 5

SESSIONS:

1. PRESENTATION OF COMMUNITY ACTION PLANS

The presentations started the day before were continued and completed.

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OVERALL KANDRIAN DISTRICT ACTION PLAN AND REVIEW OF WORKSHOP SESSIONS

by Ellen Vor der Eruegge

Once the community action plans were all presented it was demonstrated how a total plan could be designed for problems common to everyone. The function of the government, the responsibilities of the people and the process of the Ward Development System were reviewed showing how they all fit together. Because the participating communities at the workshop are a non-council area it was not possible to make commitments to implement the plans designed. A question and answer period followed.

3. CLOSING CEREMONY

- Closing Comments by Isidore Teli
- Closing Prayer by Fr. John
- Final Meal

SPECIAL THANKS

Special thanks goes to the DEPARTMENT OF WEST NEW BRITIAN for the financial and staff support that made the workshop possible.

Special thanks goes to the LIAMA COMMUNITY that prepared sleeping houses, a meeting hall, cooking and eating houses, supplied and cooked food, and in every way made us feel welcome and comfortable during our stay in their place.

Special thanks goes to the LEADERS AND ELDERS of the PASSISMANUA GINI/RAULTO areas that travelled so far to attend the meeting and gave their full time and attention to each session.

COMMENTS

WNB is currently working very hard to implement the Ward Development System throughout the province. The Passismanua Gini/Raulto area presents a special challenge since it is one of the few remaining places in all of PNG (and the only one in WNB) that has not formed a local government council. The workshop was an opportunity to explain the government structure to the people and demonstrate to them how to use the process of self-government for their own development. The Ward Development Structure and the Primary Health Care process/approach are a natural combination.

The Liama Workshop was the first meeting of its kind in the area. It brought together in a rural setting the full range of district government officers and the leaders and decision-makers of all the villages in the area. Together they discussed their roles and responsibilities, looked at the local situation and created a joint plan of action to follow. The process of self-reliant development given reasonable assistance has been set in motion. It is now up to the people of Passismanua Gini/Raulto to decide whether or not to act. It is also the work of the WNB government to encourage the people in their efforts and to support them as they grow.

18 December 05

Dia Ol Bilman blg Passismanua Gimi/Lauto,

Mi, Ellen, mi gat liklik toktok mi laik bai i go long wanwan blg ela. Namba wan sating, mi laik tok tenkyu tru long kamap blg yupela miting long Liama. Mi save i longwe blg wokabaut blg kam. Tasol yupela olgeta bin erait blg kam na stap inap 4-pela de. Long dispela hatwok blg yupela, yu soim ol yu gutpela lida blg ol, Tenkyu tru.

Namba tu sating mi tok tenkyu long gutpela wok blg yupela olgeta trin yu bin stap long miting. Mi save, i hatwok tru blg sindaun na putim dia gut long ol toktok na skol. Tasol yupela nekim na olgeta sating i bin kamap gutpela.

Tingting bek long ol sating yumi bin toktok long en. Olsem Isidore i skolim yumi long olgeta sating bilong nupela gavamen strukt. Ol i skolim WCE DEVELOPMENT KOMITI. As tingting long kirapim WDC insait long province em long ol dispela:

- 1) Long behainim tingting blg Provincial Gavmen long givim sampela political party na sampela wok i go daun moa long ol peles.
- 2) Long halivim ol pipal, long ol yet i ken ge insait long ol toktok o men long ol wok ki ap nau i wok long kamap.
- 3) Long halivim na lukim olsem ol pipal yet i mas kisim gutpela sindaun long ol takis moni ol i givim long Kaunsil.

Wok bilong hucat maneri i memba long dispela WDC:

- 1) Kaunsila - Siama. Bai lukautim ol dispela wok:

- lo na oda
- strongpela grin (bia, spirit)
- wok moni (finance)
- information
- wok long lukautim WDC

- 2) Harapela Memba - Ekonomi Servis

- wok si'iman
- wok bisnis
- wok forest

Harapela Memba - Helt Servis

- lukautim wok long ol sidpost
- lukautim wok long helt insait long wok

- 3) Harapela Memba - Edukasin

- komuniti skol
- skol bilong ol bilpela maneri
- wok bilong pasin tumbuna

- 4) Harapela Memba - Komuniti Servis

- wok bilong ol yuth
- wok bilong ol mari
- wok long ronim gut ol sports
- wok long sait bilong ol lotu

Taim yu stap long ples kisim piksa yu bin wokim long Liama wantaim grup blg yupela. Soim piksa long ol maneri long poes na skolim ol long ol sating yumi toktok long en. Tingting wanem kain hevi na vari i stap. Tingting wanem sating long ples i wok long kamap gutpela na yu laik bai i gohet moa moa yet.

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Nau train despela rot mipela soim yupela pinis blg wokim gutpela plan.

NIDS	WOK ELG OL MAN LG PLES	OL SARTING BLG PLES	SAVEMAN	OL SARTING BLG AUTSAIT	TAIM BLG WOK	FAPA LUKAUT

I plan yupela wokim pinis i stap long beksait blg repot hia. Saos yu idim sampela haliyim singautim lain blg gavmen o misin blg kem na wok antaim yu. Bihain bai i gat narepela miting blg givin sampela skul en long ol '70s Development Komiti Kamba.

Namba tru wanting mi laik bai yupela gat kopi blg repot mi ritim blg ing long Liama. Sori mi ritim en long tok English. Mi laik soim yu wem wok blg yumi i no pinis - nogat. Nau tasol yumi stat long mipela rot bilong gohet. Mi hamamas mi Ren wokabaut wantaim yupela long despela rot. Tenkyu tru. En tasol.

Mi tasol - Longpela meri tunas,

Ellen
Ellen

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NIBS	WOK BLG OL MAN LG PLES	OL SATING BLG PLES	SAVENAN	OL SATING BLG AUTSAIT	TAIM BLG WOK	PAPA LUKAUT
<u>ASENGSENG</u>						
Wokim Vilis	-tok orait -klinim bus -wokim haus	-diwai, kanda rop, plank -oraitim graun	-nogat ol bikman i stap	-nogat	3-4 mun	Luluai Magistrate Komiti
Aid Post	-tok orait lg graun -census -karim marasin	-diwai, rop, kanda	-dokta -nes/Apo	-marasin -moni	3-4 mun	AFO Komiti blg ples
Skul	-tok orait lg graun -klinim graun	-diwai, rop, kanda -plank	-inspector -PEB	-tisa -buk, etc.	2 yia	BDM Misin Kaunsil
<u>KAULON</u>						
Water Tank	-redim wetsan -karim ston -tainim semen	-wetsan -ston -tools	-ples wantaim pluma blg komuniti	-bag semen -tank fittings	2 mun	Maus man blg wan wan ples (5)
Maintain Road	-kutim gras -wokim baret -putim karanas	-karanas -tools	-nogat lida blg ples i stap	-5 wheel barrows, spades, shovels, picks, sarafs	3-4 wiks	Sub-komiti blg wan wan ples (5)
Aid Post/ V.H.W.	-wokim haus marasin -haus blg VHW -gaden blg VHW	-diwai -lep kanda -tok orait lg graun	-man blg ples -dokta/nes	-marasin -lock/bokis -tok orait blg Helt	5 mun	Siaman blg helt komiti
<u>GIMI</u>						
Tank Wara	-wokim bed -kutim mambu -wok wantaim pluma	-diwai -mambu	epluma	-ol sating blg wokim tank	2 mun	Vilis komiti
Feeder Skul	-wokim haus tisa -wokim haus skul	-tok orait lg graun -diusi, rop	-tisa	-tok orait lg education -sensis	1 yia	Inspector WDC-Educ. mamba

NIDS	WOK BLG DL MAN LG PLES	OL SAMTING BLG PLES	OL SAMTING BLG AUTSAIT	BLG WOKIM LUKAUT	
<u>RAUTO</u>					
Wara Supply	-klinim ples -karim wetsan, ston karonas -karim ol hap blg -tank	-rop -ston, karonas -diwai	-gat man lg ples	-semen, waia -pipe, gutter -tap -tank i stap-	5 mun Kaungla
Skul	-makim/klinim ples -haus tisa, toilet -wokim shul -redim pikinini	-graun -diwai, rop, lep kanda, ol samting blg bush	-Inspector -Co-ordinator	-tok orait-PEB -tisa, buk, rula, na ol samting	1½ yia Kaunsil
<u>PALAN</u>					
Bris	-kutim arewe lg wara lg bris -kutim diwai, rop	-diwai -rop	-engineer blg wokim bris	-waia, timba	6 mun A/S Kandrian maus man blg ples
Rot	-kutim ol kokonas na ol diwai	-tomiak, saip i stap	-kiap -engineer	-spade -pick	1 yia Lida blg ples
Helt Center	-tok orait lg graun -Karim kargo, maras -klinin graun	-graun -diwai	-karpenta -nes -dokta boi	-tok orait lg gov. -timba -moni	2 yia Helt Dept.
Wara Tank	-karim ol hap blg tank	-kapa lg haus lotu i stap	-Helt Inspecta	-tank -semen, etc.	3 mun Helt Inspecta

NIDS	WOK BLG DL MAM LG PLES	OL SANTIING BLG PLES	SAVEMAN	OL SANTIING BLG AUTSAIT	TAIM BLG WOK	PAPA LJKAUT
<u>CENTRAL PASSISMANUA</u>						
Tank	-redim eton, karanas -karanas	-ston, Maranas -moni -haus kapa	-Inspector	-semen, nils, waia spade, tank kit -moni	6 mun	WDC Helt mamba
Banis Pik	-orait lg graun -klinim ples -wokim haus	-diwai, rop -moni -kaikai	-nogat Bikman i stap na tisa	-waia, iron sheets -semen, nil -drums	3 mun	DPI WDC Memba
Haus Fireman	-tok orait lg graun -graun, ston, diwai ol pipel i wokim	-moni -diwai, rop, wara -wetsan, karanas	-DPI -Sus. Devel. Officer	-timba, drum -semen, kapa -waia	1 yia	WDC Kaunsil
Double Classroom	-tok orait lg graun -wetsan, karanas, wara, ol pipel i wokim	-moni -karanas, ston, wara	LGC Foreman	-timba, kapa nil, semen, paint, masonait	2 yia	BOM

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Ellen
EXHIBIT # 2



DEPARTMENT OF PRIMARY INDUSTRY

TELEGRAMS: AGRIC. KONE DOBU
TELEPHONE: 214699
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P.O. BOX 417,
KONE DOBU,
PAPUA NEW GUINEA

Date: 23rd August '85

Our Reference: 9 - 1 - 105

Action Officers:

Designation:

Your Reference:

Date:

Note to File

TOPIC: Discussion in Kandrian District Rural Development Projects

Place: Kimbe: WNB Provincial Government

Present: Isidore Teli
Ellen Vor Der Breugge

M/C/ Kandrian
Health Planner - Rabaul Arch Diocese
Community Development Team

Elizabeth Morris Hughes

Nutrition Planner FANCU

Item One Rde of FANCU/LDA

Nutrition Planner Summarized: the events which led to the establishment of FANCU: - the objectives which include Assistance and advice to the Provinces in the design and implementation of Food and Nutrition Policies and Projects; the liaison with the Provincial Planning Section of the Department of National Planning and Development in the design and submission of Food and Nutrition Improvement Projects specifically in the Less Developed Area Districts.

Item Two Kandrian District NPEP Submissions

General discussion on the NPEP submissions for 1986 funding from the National Government from Kandrian District these include: -

- 1) APAUN Bridge on POMALMAL Road
- 2) Amulut, Pomalmai, Fulleborn Sub-Health Centres
- 3) Upgrading of Kandrian Vocational Centre to include outboard Engine Repairs.

Boatbuilding
Fisheries Training

- a) It was clarified that these NPEP submissions were based on key recommendations included in the Gloucester/Kandrian Consultancy Report and had been prepared by the members of the Kandrian District Co-ordinating Committee.

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- b) It was noted that to emphasize the justification for these NPEP submissions, and to facilitate the identification of Donor Funding, substantial documentation of the i) process by which the proposals were drawn up (cf: Item 2a above/Item 3 below) ii) factors considered during the preparation of the proposals. (Item 4 below) is both useful and important.

Item Three Process of Proposal Preparation

- a) The Kandrian District Co-ordinating Committee consists of the 7 O'/C's and 3 representatives of the Sub-Districts Kandrian, Gasmata and Eseli.
- b) Kandrian Council was established 1934, Gasmata Council was established in 1985. Funded by a Provincial Development Program, Ward Development Workshops leading to the establishment of Ward Development Committees (WDS's) have been completed in all the Wards of Kandrian and Gasmata Councils. The (WDC's) have been completed in all the Wards of Kandrian and Gasmata Councils. The WDC, members are elected from their respective village Development Committees (VDC's).
- c) Since 1981 the O'C Kandrian had tried, through the establishment of the Passis-Manua/Gimirauto Development Committee - with 14 members nominated by the villagers of the Sub-District - to encourage the people of the area towards co-operation with the District Government, so that they may benefit from Government Services.
- i) the people are still very familiar with the Luluai/Tultul system of local village government by which they enjoy direct access to the District Officer, as representatives of the Provincial Government, and from whom they expect to receive their instructions; by their assimilation into the Ward Committee, Local Council system, they rightly fear they will lose this valuable direct access to the District Office, and are anxious about being required to assume more responsibility for the "development" of their own area.
- ii) In addition the Passis-Manua/Gumirauto people object to having to pay taxes to fund their Local Council. It is hoped that with the 1985 abolition of Head Tax, and the establishment of the Ward Tax System, by which 90% of the funds remain with Ward, 10% with the Local Council who also hold the Passbook, the understandable resentment and fear of the misuse of these local taxes will become less marked.
- iii) For the remainder of 1985 and 1986 further work to assist the communities of Passis - Manua/Gimirauto Sub-District in their learning to work and to take decisions together, it is anticipated. The Rabaul Arch Diocese Community Development Team, with the support of the Kandrian O I/C's will hold an initial workshop at LIAMA - Gimirauto Sub-District in late November to introduce government personnel and community leaders to the issues and skills involved in working with village communities to plan and implement their own development projects. Follow up to assist specific village communities in their efforts is part of the Community Development Team's Program and later Ward Development Workshops may be appropriate.
- iv) The Officer In Charge, Kandrian District required the existing Councils of Kandrian and Gasmata to prepare an Outline Development Plan for 5 years. These are currently being considered by the Provincial Executive Council (PEC) and will be included in the Outline Kandrian District 5 year plan, of which the NPEP proposals listed in Item Two are only the first phase.

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Item Four Factors considered during NPEP proposal preparation

a) The APAUN Bridge on the Pomalmal Road

Note: i) This proposal was prepared by the Passis - Manua/Gimirauto Development Council. (Item 3 c i - iv)

- ii) In line with the Gloucester/Kandrian Consultancy Recommendations emphasizing the need to concentrate on the improvement of maritime coastal transport, the further construction of roads to be limited to those directed in land as feeder roads, the APAUN Bridge on the Palmalmal Road is a vital part of the road to Palmalmal feeding off the main Kandrian/Eseli Road, for which the WNB Government has already allocated K30,000 in 1985 in order to complete the last 20km of the road.
- iii) With the proposal to improve the access of the people of the Palmalmal area to basic Health Services by the establishment of a Palmalmal Health Centre (cf below), the APAUN Bridge as part of the Palmalmal Road is essential for the adequate provision of supplies, staff support and supervision and referral of patients between Palmalmal and Kandrian.
- iv) With a Patrol Officer and a DPI Officer now based in Palmalmal it is hoped that work will help local communities to improve the production from their subsistence gardens and to develop their interest in cash cropping activities will proceed - provision of adequate agricultural supplies and access to markets can only be provided via the Palmalmal Road/Apaun Bridge.

b) The Amulut Palmalmal Fullerborn Sub-Health Centre

- i) All three Sub - Health Centres are proposed to provide their respective catchment populations with access to basic Health Services; other than the three existing Aid Posts covering an area of 8088 square kms and 11430 population, access to basic Health Services, is only available at Kandrian Health Centre.
- ii) In all three instances the Sub-Health Centres will form part of the Service Centres being developed in their respective areas.
- iii) Given that these areas experienced a "TAIM HUNGRI" in 1984, once the Sub-Health Centres are established MCH Patrols to: provide immunization, monitor nutritional status, encouraged improved feeding patterns in the communities of the area will be possible.

c) Upgrading of Kandrian Vocational Centre

Based on the recommendations of the Gloucester/Kandrian Consultancy, during the course of the proposal preparation, it was decided not to include the "slipway" at the Kandrian Centre, since it was not considered possible to provide adequate back-up facilities for it at Kandrian.

Item Five

Follow - up Action Agreed

- i) Nutrition Planner to follow-up status of Kandrian District NPEP submissions with NPO/LDA.

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- ii) Nutrition Planner and Food Crop Production Officer from FANCU/DPI to visit Kandrian District October 1985 to assist with NPEP project proposal submissions for 1986. This visit will be following consultation with Toni Simmonelli Regional Planner of the Islands Region Secretariat, who is assisting the WNB Provincial Planning Officer to draw up guidelines for the Districts on the implementation of the Gloucester/Kandrian Consultancy recommendations.
- iii) The Community Development Team together with the Kandrian District O I/e's will begin discussions with the communities of Passis-Manua/Gimirauto Sub-District in November regarding possible development project for their area. A summary of the findings of the FANCU visit in October will provide a background information framework for these discussions.

Nutrition Planner

Elizabeth Morris Hughes
Elizabeth Morris Hughes.

- cc: First Assistant Secretary
 Assistant Secretary
 Principal Planning Officer
 David Kwamillon Planning Officer
 Enoch Posenau
 Dr Nyont
 Jonathan Hampshire
 ✓ Ellen vor der Breugge
 Isidore Teli

- DPI/PPC
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 LDA/NPO
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 Kandrian District Officer

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