497026
PD-APT-183
ISP 4441 3

June 23, 1980

MEMORANDUM

TO : AA/ASIA, Mr. John H. Sullivan

FROM : ASIA/DP/PL, John McCarthy

SUBJECT: Trip Report-Indonesia Rural Electrification, May 15-June 3

Following is a summary of the principal issues that I see for successfully completing RE I and initiating an RE II. These are derived from visits to RE I project sites and from discussions with USAID, USAID contractor and Indonesian project personnel. These visits and discussions are detailed in the subsequent section of this report.

Summary Of Principal Issues

RE I EVALUATION

There will not be enough implementation of RE I by the first half of 1981 to make reasonably sound judgements on the workability of RE II. It would be preferable to postpone RE II to FY'82, rather than FY'81, to provide more basis from RE I experience for making judgements respecting RE II feasibility. If this postponement cannot take place, the project basis for any form of "impact" (I specifically exclude both productive and community uses examination) evaluation early in 1981 will be the three village Klaten demonstration project and, possibly, if the third quarter 1980 energization target is met, the Lombok demonstration project as well. Judgements for RE II derived from the experience of Klaten will be limited by the special characteristics (e.g. high income, urban orientation) of the Klaten project. Similar characteristics govern the Lombok demonstration project. While these characteristics set the demonstration areas of the two projects quite apart from the rural oriented, majority low-income areas, findings on particularly affordability in the demonstration areas seven to eight months after the new rate increases went into effect will have relevance to the overall affordability issue.

Other bases for an evaluation in the first quarter of 1981 lie in what has been achieved in building the institutional capability in the GOI for replicating rural electrification in both the cooperative and PLN modes, and in assessing the GOI's commitment to rural electrification in general and to rural electric cooperatives specifically. In addition, the evaluation should include a progress up-date against the revised completion targets for all the procurement, construction and energization targets that are set forth in the new CPM. I was not able to get even Mission in-principle concurrence to the foregoing as the basis for next year's evaluation before I left, but I did leave a preliminary outline, including specific questions to be addressed, with the interim project manager, Ben Hawley. He promised Mission comments ASAP.

AFFORDABILITY

This is every bit an issue, indeed the key issue, for RE I, both DGC and PLN components, as it is the issue for RE II. The new PLN rate structure, at least until it is fully understood as to increased costs and the intended application of these costs to our projects, places in doubt the earlier affordability studies for RE I. It is unclear, after talks with numerous PLN Pusat and regional officials, what higher costs will be imposed on household users, although a 50% raise to an average 3,000 rp. monthly was most often cited. It is clear that people in the PLN and DGC demonstration projects are confused about what the rates will be and where the increases will fall in the new monthly rate structure. In the case of our Klaten (Karanganom) visit, the P.I. Ring, PLN budget and Wilayah representatives could not agree on the interpretation of the rate increase which was contained in a notice which PLN had sent to the Karanganom users.

In my view, Tom Niblock and the staff who are closely associated with the project are fully aware of the critical importance of this issue. The Mission seems intent on pursuing this matter forcefully with PLN and other GOI agencies until it receives the necessary clarification.

PRODUCTIVE USES

Will not take off in either PLN or DGC projects unless the electricity suppliers provide incentives, particularly connection cost incentives, for the initial start-up period of new small-scale industries. Similar incentives will be needed to get existing industries to switch from their own gen sets, which nearly all those industries we saw had, to PLN or co-op supply. For the latter industries, it may take several years for some to dispose of their considerable investment in gen sets. An extension-type advisory assistance will be needed to work

out a basis for making the shift on a case-by-case basis. Since none of the industries viewed were already very labor intensive, the introduction of 24 hr. reliable, relatively cheap electricity may lead to a decrease in rural employment opportunities, rather than the sought after increase. It did not appear from our discussions with industry managers/owners that the market for their products would justify increased production and, thereby, more employees. In general, productive uses beyond the present limited level of activity viewed in both demonstration and general project areas is going to be very difficult to bring about. A multi-faceted GOI program to provide policy and program incentives for potential small-scale industries is going to be needed, including an extension worker type service to proselytize villagers and others to participate in such a program. Planning for a program of such scope for all project areas should begin now. The initial USAID focus on developing a program for only Klaten through a PSC is piece-meal addressment of what is needed. In any case, it must be the GOI that provides the leadership and organization for productive uses. I didn't find in my discussions with GOI officials on this subject any sense of urgency to move ahead with planning prior to energization. Thinking on productive uses does not go beyond a rather vague idea of what might be the products of a productive uses program, e.g., energized pumps, handicrafts, etc. No one had any thoughts of how and with what these and other productive results from electrification could be brought about.

CO-OPS

Are in trouble even in this very early stage of their formulation. At issue is the credibility of the co-op concept which the Lampung and Lombok boards want to believe and operate in accordance with, but which they see the Jakarta Project Development Office of the Ministry of Cooperatives (DGC/PDO) undercutting all the time. The boards feel they are not participating in the project planning and major project decisions. They see planning and implementation decisions being made in Jakarta without their participation, but which they are expected to sanction, particularly for paying the bills resulting from these planning and operating decisions. The Lampung board, with whom we met, was particularly vocal on this score. They see their credibility with their members and potential members threatened because of their insufficient involvement. While the boards would probably like to be running the entire show now, and I do not for a minute think they are capable of doing so, they would probably be happy with more substantive involvement in both the demonstration and overall projects.

In a meeting we had with Mr. Muslimin, special assistant to the Minister of Cooperatives, he articulated a position that agrees with eventually meeting the concept of independently operating coops but which

also allows for an indefinite period of close GOI stewardship. This position would seem to allow for the formulation over the next five years of a growth-in-responsibility plan for the Co-op boards which would meet both their immediate needs and the need of DGC/PDO to get areas energized as quickly as possible particularly in the demonstration projects. At a subsequent meeting with DGC representatives, including Mr. Muslimin, on June 2, the issue of Co-op board involvement in the project was given a full airing. The DGC said they would involve the Boards in a more substantive role but I hope this becomes more than the specific means mentioned, i.e., bringing Boards into Jakarta on occasion to sit in on DGC/PDO meetings.

There is cause for concern also in Mr. Muslimin's statement that he sees the existing multi-purpose co-ops assuming RE functions and the Re Co-ops becoming multi-purpose co-ops.

PROJECT SITE VISITS/MEETINGS WITH GOI OFFICIALS

I. EAST LOMBOK (LOMBOK ISLAND) CO-OPERATIVE PROJECT

May 18-20:

(Status summary - 1,100 houses wired in demonstration project; temporary generators being put in place; energization planned July 12, 1980).

Affordability:

Talked with only 2 households in the RE demonstration project. These already wired along with reported 1,000 others for energization scheduled July 12. Demonstration project in Achmil and couple other towns. Householders visited are shop keepers in town - well-to-do, probably able to pay 3,000 rp or more monthly.

Co-op board chairman opinioned that people could pay 2,000 rp monthly cost for electricity because their monthly consumption of kerosene for lighting averaged 2,200 rps. This statement applied to the people in the demonstration project, however. He had no views on ability people in the project as a whole to pay a given sum.

Drove through arid land area included in the overall project area. Surface water sources reported to be non-existant and from all appearances this is true.

20,000 people said to live here and are the poorest in the project. Very little economic activity viewed - some small cassava growing areas where the cassava looked stunted and dying. Doubt that these people could afford even a 2,000 rp monthly rate. It is clear that in this project, as well as in Lampung, it is considered too early to be considering what rates might be set by the co-op. However, in Lombok, the Director of Cooperatives (DGC) local Coordinator for the project rather airily observed that they would probably set rates lower than PLN. Surely there will have to be some comparability agreement reached with PLN on the rate structure for the co-op areas.

Board chairman gave what seemed to be a standardized spiel on productive uses possibilities, i.e. no specifics. As in other co-op and PLN project site visits, I came away feeling that there is no serious thought being given to the subject of productive uses.

We were told that water was adequate year-around for the gravity flow irrigation system in the seemingly prosperous rice growing areas. No need for pumps here.

Regarding the largely non-productive arid area of the project, statement made that one well had been drilled to a depth of 12 meters without finding water. Officials present admitted there was no groundwater research program going on for the area. I had the impression officials had given up on groundwater possibilities based on drilling only one test well.

This seems an insufficient basis for ruling out groundwater and what it could mean for the area's agricultural potential. At the PES review, CIDA representative said Canada was mounting a water diversion project from Northwest Lombok to the arid area. This was not mentioned during our Lombok project site visit.

Visited the port for East Lombok which is very modest indeed. Saw what appeared to be relatively healthy cattle being loaded for shipment. Did not see cattle in project areas we visited but were told they are from there. Maybe enough water could be found in the arid areas for grasses/feed for cattle raising as an alternative to rice and other crops which would require more water than may be found in the area. Other economic activity at Lombok port seemed to be limited to a little shipbuilding and to ferry services between Lombok and Sumbawa. Harbor appears too shallow for all but minimum draft vessels.

Visited in West Lombok (not part of our project area) what had at one time been large factory weaving local cloth. Only about 5% of the looms were active. Viewed cloth at the major handicrafts outlet in

Mataram in West Lombok. Would seem to have limited market appeal. In context of current and likely future reliance on Japanese textiles see little productive development here. Similarly, regarding other handicrafts seen, it is unlikely that these which duplicate what is already available for the Bali tourist market, would be needed to supplement what seems to be the more than adequate supply furnished by the Balinese.

Possibility for co-op to supply electricity to rice mills in project exist if incentives e.g., low connection charge, can be developed for them to shift from their own gen sets.

Did not see cassava milling in project area, although cassava was fairly extensive and looked healthy in all but the arid area of the project.

Other Comments:

In a meeting with the Lombok Governor's deputy, he stated that the Governor's division of what had originally been the entire co-op project area into a western area controlled by PLN was final and he would not consider further PLN expansion into the co-op area. Other local PDO (Project Development Office of the DGC, the GOI planning implementing agency for the 3 AID-supported co-ops) staff did not feel certain that the issue was settled.

We observed a special organizational configuration for Lombok which had been instituted by PDO/Jakarta in the form of a PDO dominated task force to push the demonstration project construction to a July 12 energization target. The effects from this have been to put all the project personnel trained for staking, etc. under the task force to construct what seemed an over-designed temporary generator house and a PDO guest house for the demonstration project while staking and other preparatory work for the overall project is being delayed. Of equal importance is the fact that the co-op has been pushed to the side and is not being involved in project planning. The co-op board chairman made this complaint in a meeting with the PDO Task Force chief and DGC coordinator present.

The DGC coordinator, a very compelling personality, appeared despite the PDO task force, to be running the show. There was a definite undercurrent of hostility between the PDO project chief and the coordinator. The coordinator seemed to view the RE project no differently than other DGC projects in so far as his coordinating role was concerned, though I sensed "coordination" meant to him overall direction/supervision. This bifurcated project direction may have been partly responsible for project delays and may account for more future delays.

II. MEETING WITH MUSLIMIN NASUTION, SECRETARY TO THE STATE MINISTER FOR COOPERATIVES: MAY 20, 1980

The Secretary, who is the Ministry of Cooperatives overall project manager (as opposed to DGC/PDO's day-to-day operational role) for the three co-op projects said:

--Rural Electrification's importance lies in its contribution to the nation's number one priority, increased food production. (Mr. Muslimin works also in BULOG, the GOI's food procurement and distribution agency whose head, Mr. Arifin, is also the State Minister for Cooperatives).

--Wants productive uses directed principally to energized pumps for rice irrigating in the water scarce areas of Lombok, and to supplement seasonally inadequate water supplies in Lampung and Luwu.

--Alternative productive uses to water for irrigation should be developed where water resources inadequate. Intends to obtain consultant services for looking into productive uses for three co-op projects - note that consultant services for production uses survey/program development already contracted by USAID and PLN is for the Klaten Central Java project only.

--Believes in concept of independently operating RE Cooperatives but GOI must exercise stewardship during their formation and initial start-up. GOI should thereafter relinquish controls.

--Wants to strengthen existing multi-purpose co-operatives by adding an RE function, and sees the RE cooperatives eventually becoming multi-purpose co-operatives.

LAMPUNG (SOUTH SUMATRA) CO-OPERATIVE PROJECT MAY 21-23

(Status Summary - No Housewiring and no Energization)

Affordability:

Overall project area considerably more prosperous than Lombok project area. It is long-standing transmigration area. There appears to be about 50% well-watered (observed extensive gravity-flow irrigation system) rice growing area and 50% water deficient area-nothing like the arid Lombok area seen where cassava growing is extensive and looked good.

Did not visit any households. Met with entire Board. In response to my query, Co-op Board chairman defended earlier RE I affordability survey work. He said households were contacted, not just the lurahs of the villages. However, he did not know what % of the people could pay what monthly rates. Asked whether they could pay 3,000 rs monthly rate he thought this might be too high for some.

Productive Uses:

Viewed, but did not visit, large number of rice and cassava milling plants throughout project area. Was told all had their own gen sets. Also told that at least one large cassava mill was generating with gas from a milling by-product. Co-op will need to provide incentives for these plants to switch to co-op power, particularly where there is extensive investment already in the plant's own gen sets.

Other Comments:

Met with Co-op Board whose chairman and treasurer were very vocal about their being left out of a substantive project planning and implementation role. They said there is too much Jakarta control/direction. Their role they felt was to sanction the bills for work decided by PDO/Jakarta and this was not enough. After all, they said, they had to show co-op members that the Board was representing their interests by participating in major project decisions and they could not demonstrate that this had been the case up to now.

IV. MEETING WITH C.T. MAIN, USAID, PLN BUDGET, PLN/PIRING AND PLN/WILAYAH REPRESENTATIVES IN SEMARANG PREPARATORY TO KLATEN VISIT; MAY 26, 1980

Klaten demonstration project (3 villages) statistics up-date:

**Household connections remain at 1868 out of potential 2000.

**KWH usage peaked at 50 KWH in October '79 and in April '80 stands at 29 KWH. Reduction probably as families received first bills and cut back power usage to cut costs.

**Between July '79 when first connections made until March '80, 44 disconnections took place because of non-payment of bills, 36 were reconnected a month later after payment and 8 remain disconnected. No voluntary (householder's initiative) disconnections have taken place.

**There is a 200 rp charge for late payment of a bill beyond 20th of the month and a 300 rp charge to reconnect electricity.

**June bill will be the first to reflect the new PLN rate increases effective in May.

**People are recompensed for land, trees, etc. lost in wrigh-of-way acquisition for transmission lines but not for distribution lines.

V. KLATEN (CENTRAL JAVA) PLN DEMONSTRATION PROJECT

May 26-28 (Status Summary - 1868 households energized). Two of the three project villages, Jongrangan and Karanganom, were visited, the former briefly the evening of the 26th and the latter for four hours the morning of the 27th.

Jongrangan-sits up against the Solo-Yogyakarta highway and is part of the urban concentration of shops that stretch along this road between the two cities. Did not talk with any households but in walk through the village observed single lights in nearly all the houses and, in addition, a light at each village road intersection connected to the nearest house. We were told by accompanying PLN/PIRING and Wilayah representatives that this was the wealthiest of the three villages - its non-rural shop-oriented economy would seem to assure this. Did not see any small-scale industries in the village, but given its location, these are likely to be along the Solo-Yogya road.

Karanganom

Affordability:

Desa official, who also turned out to be the Karanganom lurah, said that he had been told that only up to the potential 2000 household connections in the demonstration project would get connected for 30,000 rp, thereafter all other new connections in the project would cost the householder 60,000 rp. The PLN/Wilayah representative confirmed this to be the case explaining that PLN had budgeted only enough to subsidize the cost for the first 2000 connections. This means that those in the villages that make up the balance of the Klaten project, the majority of whom are probably considerably poorer than those in the three "wealthy" domonstration villages, will have to pay twice the connection charges levied on their more well-to-do neighbors in the demonstration section of the project.

Three of us visited 4 households with electricity and 3 households without. Households with varied from the very affluent where the head of the household is an education official who could afford to buy a $500 electric refrigerator, to other obviously less affluent households. Only one household owned land and they leased this (it was far from the village they said) and farmed leased land nearby. Heads of other households worked at non-farm jobs, e.g. local official, carpenter in Yogya, etc. Except for the one most affluent family, electricity is being used exclusively for security lighting - one or two lights per house. Only two families reported adding an appliance (radio, iron) after electricity - others already had battery-operated radios and/or televisions. April bill ranged from the most affluent family's 1,838 rps to 1,385 rps. Regarding a possible rate increase to 3,000 rps monthly, all said they would cut their usage.

Households without said they wanted electricity. One could not afford the initial 4,000 rp charge though thought he probably could meet up to 2,000 rp monthly payments (these would include payments on 30,000 rp connection charge). Another family, who are sharecroppers with 30,000 rp yearly cash income and 85,000 rp share of annual rice crop harvested, said farming too insecure - afraid would find not able to pay monthly costs. None of the households own land. Head of third household makes one meter wide basha (bamboo) house sidings from which he nets 400 rp per day. Householder who thought he could meet monthly charges of 2,000 rps repairs umbrella frames while his wife repairs the fabric. Have manual sewing machine. Says at times he earns 1,000 rps a day though impression was his average daily earning is considerably less. Uses car battery to run his radio which needs monthly recharging at 500 rp cost.

Productive and Community Uses:

Visited a lumber mill and ice plant. Both have own gen sets, the latter's representing considerable investment (4 large generators) which it will take time to realize. Both are connected to PLN for security lighting only. Both owned by absentee Chinese living in Yogya. Lumber mill receives 500 rp per cu. meter for milling teak brought to mill by owners and returned to them. Manager said it was too expensive to fully hook up to PLN (PLN's rep. said for this size operation employing 5 workers connection charge could be from 150 to 300,000 rps), and, anyway, plant's own generation was probably more reliable than PLN.

Ice plant employs 30 workers and produces 20 tons of ice a day for the Solo market. Manager said considerable investment in his own generating plant, the assured power supply it provides, and its relatively low

operating cost, as well as, the high cost of a full PLN connection were his reasons for staying with his own generators.

According to the Desa official, 2 of 3 schools in the village are using electricity but only for security lighting. There are no night classes of any kind. Official also said that the electrified Desa headquarters building was being used for the first night community meetings-two such meetings had been held within the past four months. Said also that the street lighting was provided/paid by the household nearest the street intersection where the light is located as a community service.

Visit to village health clinic disclosed electricity being used only for security lighting. No changes in service hours. A kerosene refrigerator was being used because of the alleged unreliability of the PLN supply. Refrigerator filled with medicines requiring round-the-clock refrigeration.

VI BANTUL (CENTRAL JAVA) PLN PROJECT

(Status Summary-no houses wired, no energization)
May 27 p.m.

Visited a village in this project area which classify as rural as opposed to the three Klaten demonstration villages. Majority of people here are poor. Although only five Km from Yogya, the people are predominently sharecroppers on nearby rice lands. Talked with a couple non-farmers; one is a Betjak driver in Yogya who is heavily in debt to Chinese owner of Betjak and a widow who sells vegetables in Yogya market. Majority of people here will find it difficult to pay even 2,000 rp monthly for electricity. Did not have time to investigate productive and community uses.

VII MEETING WITH PLN RURAL ELECTRIFICATION OFFICIALS IN JAKARTA
MAY 29

PLN organization for rural electrification, which includes but is not limited to USAID's supported projects, was described. The impression is that rural electrification is treated as a step-child within PLN and is not in a very high pecking order with the more established planning and operating divisions. If this step-child condition is true it could explain some of the project implementation problems on the Indonesian-side.

ccs: ASIA/DP:RHalligan
ASIA/DP:CJohnson
ASIA/PD/ENGR:WHodgin
ASIA/EMS:FFisher
ASIA/ISPA:RDakan
USAID/Jakarta:AGrayson