

FINAL EVALUATION REPORT - PENA II

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The contents of this report reflect the opinions of the Evaluation Team and not those of CARE International Indonesia, CARE Australia or AusAID.

EXECUTIVE SUMMARY

PENA II ran from 1 August 2005 to 30 November 2006 in Kupang and TTU districts in NTT province. It was a continuation of the one-year PENA project, and was implemented in virtually the same set of villages. The overall goal was to improve nutritional security of vulnerable groups. Specific objectives included increasing macro- and micro-nutrient intake by strengthening health and agricultural services, reducing diseases that impact on nutritional status by strengthening health services, and increasing access to water supply.

This final evaluation was carried out in late November 2006, just as the project was wrapping up. It was conducted by a team of four specialists, who were tasked by CARE to assess project impacts, technical quality and suitability of approaches and implementation.

PENA II was highly successful in many respects. Results and capacity built during its predecessor undoubtedly contributed to some of its most impressive elements, which included:

- Generally excellent and timely implementation of a hugely ambitious array of health, agriculture and water supply interventions in 82 villages in two districts
- Impressively tight management, with a strong and committed project manager and team
- Strong beneficiary participation and satisfaction with most activities, which met real needs
- High levels of community contribution and sustainability were particularly evident in self-help activities such as farmer groups, LEISA/ PTG, Lopo and water system construction
- Successful handover of 3 TFCs to local government, which entered them into its 5-year development plan and had already arranged annual allocations of Rp 150 million for 2006 and 2007

However, the evaluation also pointed to a number of significant weaknesses:

- Design was over-ambitious, and objectives were not fully met by results and activities. It should have been more streamlined and focussed.
- Community-based approaches that rely on external inputs, such as community-based feeding and seed fairs will not sustain without external (government) support
- The project had too many targets for institutionalising change/ creating linkages to government services and markets - efforts should have been more concentrated and focussed
- The M&E framework was incomplete and did not support analysis of impact or contribution towards it – lack of control data was a particular issue in judging impact.
- M&E systems were functional, but quality control of data was poor and staff found systems inaccessible and hard to link.

During the course of the project, the rate of severe malnutrition in target areas declined, according to CARE monitoring and independent baseline/end-line surveys. But data were problematic, and there was no control. The assessment that this project might have achieved impact on GAM rates was therefore rooted in findings that activities were generally well-implemented and impactful – even if objectives and results were sometimes tendentious.

Findings therefore tend to endorse use of the so-called 'nutritional security' framework as the basis for project design. But there are two significant riders. In addition to the need for more realistic characterisation of objectives and results, the project would have benefited from more focussed efforts to hit fewer targets, enabling clearer impacts to emerge. In this case, it is suggested that efforts on reducing disease would have been better redirected to achieving results under the other objectives. Access to water in particular was a highly relevant issue in many villages.

A second issue was the framework within which impacts should be evaluated. The concept of nutrition security itself suggests a longer-term view that was in tension with the short timeframe for implementation. At the same time, the project was a continuation of PENA I, and was intended to be succeeded by a follow up project. This presented a dilemma on how to judge short-term/long-term project impacts and sustainability in the project, which was presented as an emergency intervention but contained activities rationalized as part of a wider programmatic response.

In short, PENA II was a very well implemented project which could have benefited from a more streamlined and focussed design. This evaluation recommends adjustments in future project design to reflect lessons learned from PENA II. Meanwhile, factors such as strong staffing, good management and tried-and-tested approaches that contributed to exemplary implementation and successes are well worth replicating.

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LIST OF ABBREVIATIONS AND TERMS

ANC	Ante-natal Care
BPTP	Balai Pelelitian Teknologi Pertanian
CFC	Community Feeding Center
CII	CARE International Indonesia
COME	Center of Mother Education
DHO	District Health Office
EWSI	East West Seed Indonesia
GAM	Global Acute Malnutrition (% of moderately + severely malnourished individuals)
GOI	Government of Indonesia
HHMS	Household Monitoring System
HQ	Head Quarters
HRD	Human Resources Department
IEC	Information, Education, Communication
<i>Kader</i>	Village (health) volunteer
KP2BKP	Kantor Penyuluhan Pertanian dan Bimas Ketahanan Pangan
LEISA	Low External Input Sustainable Agriculture
<i>Lopo</i>	Communal granary
LRRD	Link between Relief, Rehabilitation and Development
MCH	Mother and Child Health
NTT	Nusa Tenggara Timur province
NUTMON	Nutrition Monitoring
PENA	Provision of Emergency Nutrition and Agricultural Assistance
<i>Posyandu</i>	Village level integrated health post (for MCH)
PRA	Participatory Rapid Appraisal
PTD	Participatory Technology Development
<i>Puskesmas</i>	Sub-district level public health centre
RUTF	Ready-to-Use Therapeutic Food
SWS	Safe Water Solution
TFC	Therapeutic Feeding Center
TTU	Timor Tengah Utara district
WMC	Water Management Committee

SECTION I: Introduction

This evaluation was conducted in the second half of November 2006 by a team of four evaluators recruited by CII, consisting of specialists in health, agriculture, governance and management.

a. Objectives

The objective was to provide a final, independent evaluation for AusAID and CARE on design, implementation, approaches and lessons learned in the PENA II project. Key issues for the evaluation included:

- Quality of project design and implementation
- Technical quality and suitability of project approaches
- Impact on under-five health and nutrition

In relation to impacts, evaluators were requested to examine the suitability of the integrated 'nutrition security' approach and application of the LRRD (Link between Relief, Rehabilitation and Development) framework. Finally, the evaluation was expected to draw lessons learned and provide recommendations for CARE. The full TOR is attached in Appendix 1.

b. Methodology

Material for this evaluation was drawn from review of key project documents and reports, including proposals and reports from PENA I & II projects, baseline and end-line surveys for PENA II and a report from the PENA II 'Next Steps' stakeholder workshop (see Appendix 2). Briefings and interviews were also held with CARE staff in Jakarta. The evaluation team also conducted field visits from 19-25 November 2006 in Kupang and TTU districts in NTT. During this time, field surveys were conducted in project locations in TTU (due to time constraints it was not possible to visit sites in Kupang district), and held interviews and group discussions with project staff, beneficiaries and key stakeholders (see Appendix 3 for schedule).

Preliminary results were presented at a half-day workshop in Kefamenanu to project staff, who provided inputs on the findings. The report will also be circulated to CARE and AusAID for comments prior to finalisation

SECTION II: Implementation and management

a. Implementation

(1) Timeliness and quality

Although the project contained a daunting and diverse array of activities and a very short, one-year, timeframe, quality and timeliness of implementation were, for the most part, exemplary. While a three-month no-cost extension was required, particularly to complete water systems, activities were generally completed in a timely manner and were of good quality.

Targeting was well-observed, and there was evidence of solid work to identify beneficiary households and ensure inclusion in activities. Socialisation of the project also seemed strong, and beneficiaries surveyed knew what the project was about. They also appeared highly satisfied with the project, and evaluators identified no major issues of increased tensions/conflict or social jealousy.

Naturally there were also problems. Two stood out:

- Numerical participation of women was good, but the quality of participation in mixed-gender (especially farmers' group) activities needs more encouragement as women hold a key role in household food management. However, given the strong paternalistic nature of Timorese society, facilitating mixed gender groups is in itself already a significant achievement.
- Forms for data collection issued to *kader* in *posyandu* were in English rather than Indonesian, a serious glitch that increased likelihood of inaccuracies in collecting data.

(2) Logframe design and consistency

The logframe was fairly clear and provided a reasonable basis for planning, although in one or two minor cases, activities described in the proposal could have been more clearly reflected in the logframe (eg. training for midwives to give agricultural IEC messages).

More attention should have been paid to indicators. These were sometimes missing or not clearly linked to activities. In the case of diarrhea, for example, the impact (% decrease) was too far removed from the activity (training health staff in signs and symptoms) to be a realistic measure.

(3) Monitoring systems

The development of HHMS and NUTMON monitoring systems was both a major challenge and achievement for the team, which lacked educational qualifications for the work. But, although data entry and collection were functional, the systems had significant weaknesses. These included:

- Lack of quality control in data collection and entry
- Poor links between the HHMS and NUTMON databases, making it hard to compile and analyse data
- Databases were difficult to use for data processing and analysis

It was therefore impossible for relevant staff to access databases independently, or to get rapid and accurate analysis of data. This indicates a need for some harder thinking on monitoring systems and management. But even in the shorter term, ensuring that staff had access to codebooks of variable names and values (in hard- and soft-copy) would have helped mitigate problems.

The project aimed to hand over the HHMS to three *puskesmas* and the DHO, at the request of AusAID. However, although this did occur, it was carried out in a rush, and before the system was running optimally. It was unfortunate that problems with the system were not identified and escalated to management prior to the handover.¹

b. Management

(1) Startup

Rapid startup was crucial for the ambitious one-year project. Support from CARE Australia and AusAID, which provided bridging funds from the PENA I project, were an important factor here. This enabled CARE to continue employing the majority of staff from the predecessor project, which contributed 61 of the 82 staff. Pre-existing capacity and familiarity with the area was key to smooth and rapid startup.

(2) Support functions

Implementation of a new decentralised arrangement that placed procurement, administration and HR under the project manager was said to be responsible for efficiency and responsiveness of these functions, which provided strong support. However, when goods were not available locally,

¹ Problems with handover of HHMS are described in more detail in the section on government, below.

procurement was still dependent on CARE's Jakarta office. A notable hiccup did occur with a jerrycan order processed wrongly in this office resulting in the wrong size being delivered.

(3) Human resources

The quality of the project manager, who combined managerial skill and expertise with strong leadership, vision and networking skills, was a major contributor to the generally impressive implementation of the project. The project team, most of whom were from NTT province, was also consistently strong at all levels. In general, the team displayed a high level of skills and strong work ethic. Commitment and teamwork were strongly evident.

(4) Management style

Management systems were strong, with clear work planning both for the project and individual staff. Responsibilities were also delegated to appropriate levels. All staff from PO to PM were involved in planning and budgeting. It was also notable that admin, procurement, HRD and finance staff attended project meetings and field events and had good awareness of activities.

(5) Field offices

In addition to the main project office in Kefamenanu, the project opened three 'base camps' in order that staff could be closer to project sites. Given distances between sites, this was an excellent practice, and is said to have impacted on ability of the team to deliver the project.

(6) Training and capacity building

Intensive informal training and mentoring took place within the project team. However, there was no planning for formal recognition of such trainings. The project recorded only five formal trainings provided to a minority of staff (procurement, finance and PM training). There was also no evidence of training or capacity building on issues such as RBA or gender.

SECTION III: Approaches

Key sectoral components of the project were reviewed separately to assess quality of implementation, suitability and impact, including sustainability. Findings are presented in this section. This forms the background to overall assessment of impact and design in section IV.

a. Health

None of the health interventions were directly observed for this evaluation, which took place as the project was wrapping up. The following assessment was therefore based on interviews and discussions with stakeholders.

(1) Centre Of Mother Education (COME)

The COME approach, which CARE has developed and implemented elsewhere, provides ANC, breastfeeding counseling, health education, exercise and supplementary meals for peer-support groups of pregnant and lactating women, who receive assistance from midwives and *kader*.

COME activities were highly relevant to the health and nutrition issues of pregnant and lactating women and their under-five children in the project areas, and appeared to have been implemented well. Participating women, *kader* and midwives were unanimous in their enthusiasm. Apparent impacts included less difficulty in childbirth, less post-partum haemorrhage, higher birthweights of babies, and increased early initiation of breastfeeding and exclusive breastfeeding. However, no M&E was designed to measure impacts of these activities.

One area of weakness was capacity-building of *kader* to conduct health education. Although all *kader* surveyed had attended health education training, most could not really remember this, and few felt confident to provide health messages to COME participants. This was usually left to the midwife or project staff. If neither were present, this crucial part of COME was skipped. This indicates that one-off training of *kader* was insufficient to build their capacity.

Sustainability was also unlikely. While COME is in itself highly sustainable, in this project, provision of additional food became its key component, and was perceived as such by participants, *kader* and midwives. In the context of high rates of malnutrition among pregnant women, this focus was appropriate. However, the downside was that communities and midwives saw little point of continuing any of the activities if they were unable to provide meals.

(2) Community Feeding Centre (CFC)

CFCs provide community-based supplementary feeding for moderately malnourished under-fives, together with education on health and nutrition for their caregivers. They offer a safety net for moderately malnourished children identified through *posyandu* and support children who have recovered from severe malnutrition in TFCs (see below). In this project, feeding took the form of a full meal and nutritious snacks made from locally available foods – so-called local RUTF (Ready to Use Therapeutic Foods).

Given the relatively high malnutrition rates among young children and generalized food shortage in the project areas, it was appropriate that the project employed the CFC approach (rather than the PD-based Hearth alternative). However, identification of high malnutrition rates among women, which soared to around 80%, suggests that project design should have placed greater focus on improving the nutritional status of women. As it was, the project team attempted to address this issue through COME (see above).

Sustainability of CFCs (as stated to be pursued in the proposal – p.61) was doubtful. As described in the above section on COME, although communities perceive benefits, they will not be able to sustain CFCs due to reliance on external provision of food. In addition, capacity of *kader* to carry out health and nutrition education independently following trainings was also in doubt. This lack of sustainability is a problem as the TFCs (see below) will continue to operate and experience has shown the necessity of a safety net for ex-TFC patients in the community to prevent them from relapsing into severe malnutrition.

(3) Therapeutic Feeding Centre (TFC)

TFCs are in-patient facilities for severely malnourished under-fives that are linked to *puskesmas*. During the project, three TFC's were set up and were effective in treating severely malnourished under-fives. Although none of the by then government-run TFCs were in operation at the time of the evaluation (pending disbursement of government funds), protocols were visible on the walls and staff was able to explain how children were treated there. They appeared to have increased coverage of severely malnourished children, including many from outside the project area.

NTT province, and West Timor in particular, is a GOI focus area for management of childhood malnutrition. Facilities such as the TFCs are much needed, and setting them up was both appropriate and in line with government policy. This, together with excellent relationships and networking with local government and service providers, formed the background to the successful handover of TFCs to TTU district, which committed to fund TFCs for five years, and has already made concrete budget allocations of Rp 150 million annually for 2006 and 2007. Handover of the TFCs within the short project time frame was a great success, though a little marred by a 3-4 month stoppage of service due to administrative problems with government fund disbursement.

(4) Ready to Use Therapeutic Food (RUTF)

RUTF is dense food intended to provide malnourished children with sufficient calories to enable them to catch up. During the project, CARE staff experimented to create various forms of RUTF from locally available ingredients, as the standard varieties were not ideal (requiring preparation

with water or not suitable to local taste). In the end, they settled on three recipes, which were used to make cookies for children to eat as snacks.

The RUTF cookies were well-received by children and caregivers, who practiced making them at CFC sessions. Weight gain was similar to that achieved using standard varieties, while price was much lower and sustainability more likely due to the use of locally available ingredients. Given sufficient household purchasing power it is imaginable that the cookies will be produced at home to provide the children with extra calories.

b. Livelihood

(1) Low External Input Sustainable Agriculture (LEISA)

Considering that the majority of beneficiaries were poor subsistence farmers, some dwelling in relatively remote locations with limited agriculture infrastructure, LEISA was an appropriate method for increasing outputs. This farm management system prioritises organic agriculture and indigenous knowledge, identifying, introducing and promoting effective local farming practices. It attempts to reduce dependency on external inputs, in particular on agrochemicals, building on local capacity and resources to improve management of soil nutrients. Advantages include that it is low cost, uses locally accessible resources, is generally relatively simple easy for farmers to adopt, boosts farmers' self-reliance and can lead to rapid increases in productivity.

Based on field surveys, employment of LEISA techniques enabled farmers to increase production, leading to increased food availability and some income generation at household level (although monitoring did not cover how additional income was used). It also increased cultivated area. Almost all farmer groups interviewed plan to extend cultivation in the coming season, implying likely further increase of outputs at household and village level.

Most farmers interviewed were confident that they could continue to apply some of the LEISA practices. Given the significant increases in yield noted by these informants in the course of the project, take-up of these methodologies does appear likely to sustain.

Yet the project did not achieve optimal transfer of LEISA techniques. Taken as a whole, LEISA promotes sustainable soil nutrition through a balance of short and long term techniques. Short-term practices such as composting, application of liquid manure and natural pesticides, seed selection, nursery treatment, mixed cropping and making plantation beds aim to fortify soil and limit chemical inputs. Meanwhile, long-term practises such as crop rotation, terracing, cut-off drains and combining planting of short and annual crops aim to conserve farmland soil condition and improve the water table. Most farmers surveyed were only familiar with short term practises.

This raises questions about how more might have been done to address longer term security and sustainability. Soil leaching and erosion are major issues in the area, due to topographic conditions, erratic climate, shortage of water and decreasing vegetation. This points to a need for better conservation practices. Additionally, promotion of only short-term crops has potential to increase vulnerability to crop failure, risk of which might be mitigated by introducing a mix of longer-term crops. The short timeframe for the project was clearly a limitation, and by this standard, achievements were impressive. But failure to address such issues also seemed to be related to staffs' view that rapid results were all-important, and longer-term crops and techniques were therefore not promoted.

(2) Seed Fairs

In the course of the project, CARE held one-off 'seed fairs' at which farmers could present vouchers in exchange for a choice of pre-selected seed varieties from participating vendors. These seed fairs aimed to provide sufficient supply of quality seeds, while at the same time enabling beneficiaries to choose varieties that met their needs.

Because it increased access to vendors and included elements of quality-control in selection of vendors and seed varieties (which were pre-tested by BPTP NTT), this approach undoubtedly provided access to better quality and a wider variety of seeds. As well as potentially increasing

yields, this promoted nutritional security through diversification of food availability at household level.

Nevertheless, some farmers reported that seeds failed to germinate, raising concerns about weaknesses in monitoring seed quality. While pre-selection of vendors and seed testing helped ensure quality, according to the PM and APM there was no mechanism to monitor quality of seeds provided in the fairs themselves, and no provision for sanctioning vendors who failed to meet agreed standards. However, the standard procedures for seed fairs do provide such mechanisms.

Overall, this activity undoubtedly had beneficial results. In the context of the nutritional crisis, the fairs provided farmers from vulnerable groups with access to free seed that was in most cases of good quality. But it is worth noting that monitoring was not designed to assess impact of seed fairs on food production or production of seeds for the following season. Additionally, the approach did not address longer-term issues of access to seed under normal conditions.²

(3) Farmer groups

Most agricultural interventions, including LEISA/ PTD, used farmer groups as an entry point. This was an appropriate way to deliver effectively and reach vulnerable households in target areas.

Groups were typically found to have formalised existing social networks and ties based on family relationships or geographic proximity. Based on field surveys, this appeared to have strengthened social networks of vulnerable farmers, enhancing their social capital.

While the formation of some groups pre-dated PENA I and had well-established management systems and significant assets, most were established during the predecessor project. They were mostly in an early phase of development and most required ongoing facilitation to help them develop well. However, as some groups themselves pointed out, their origins in common interest and existing social relations gave them relatively strong potential to sustain.

Some farmers groups were also assisted to develop a credit system with loans at low interest rates to members. This enables them to overcome periods of cash shortage without having to sell livestock.

Communal granaries ('lopo')

Construction of communal granaries, or '*lopo*', for each farmer group was used to address seed availability and quality for next planting season. The approach was a resounding success among farmers surveyed, attracting self-help contributions calculated at as much as 70% of total cost.

It is thought that this approach had a number of positive impacts. Loss of seed to pests or deterioration was likely reduced through introduction of improved storing techniques. Storing in communal granaries also reduced the likelihood that seed allocated for planting would be consumed. Finally, communal storage enhanced solidarity of farmer groups, bolstering support mechanisms in which farmers who have extra seed can provide to those who do not have enough.

However, as noted above, farmer groups were still in an early phase of development and would have benefited from ongoing facilitation. In the case of the *lopo*, which were built in the final quarter of the project, it would have been desirable to allocate more time for training on non-traditional pest control methods and to assist groups to develop *lopo* as local seed banks.

CARE should also exercise caution with in-kind contributions. While CARE has strict policy for its own timber procurements, for example, in-kind contributions from communities should also be monitored to ensure that those relating to natural resources follow 'green' practices.

² Another issue raised by some observers was the need for caution in provision of hybrid seeds for different varieties. There was no specific criticism of the project, and indeed collaboration with the regional Agricultural Research Agency on seed testing provided a valuable safeguard and backup. But it is worth flagging that impact of hybrids on local biodiversity and economy are a complicated and contentious area and that CII might do well to adopt more formal policies of its own.

(4) Linking farmers to markets

Many farmers in the project areas fail to get good prices for their products due to remoteness from potential buyers, high transportation costs, and poor individual bargaining position. Furthermore, need for cash or household crises sometimes force farmers to sell below market price or seek cash through the exploitative '*ijon*' system.

The project aimed to link farmers with the private sector through collective marketing efforts. Specific activities included bringing vendors to project sites and introducing farmers to wholesalers at 'Farmer Field Days' and other events. Based on field surveys, it appears that these initiatives did enable farmers to achieve better prices for their products, and therefore increased income. It also motivated farmers to increase their effort for the next planting season.

However, while they apparently had some impact in the short-term, such efforts to 'link' farmers to buyers relied heavily on mediation from project staff. It is unclear whether the project had sustainable impact on the ability of farmer groups to network and get information on their own accord after the project end.

East West Seed Indonesia (EWSI)

Partnership between CARE and PT East West Seed Indonesia (EWSI) to improve farmer capacity in horticultural production was perhaps the most tangible of the efforts to link farmers to private sector buyers. Under the partnership, CARE provides vital operational assistance for three years until the end of 2007, while EWSI trains farmers in seed production. Farmers, whose costs were subsidised by CARE (including through provision of tools, equipment, pesticide and chemical fertiliser), entered into individual contracts with the company to sell seeds produced.

While a number of farmers dropped out of this scheme or failed to achieve the maximum profit from their contracts, others were enthusiastic about learning seed production techniques, and planned to continue. However, figures on adoption were not available at the time of writing. There has also been no profit/loss analysis among participating farmers, which should factor in the substantial labour cost of the activity.

It is questionable whether this activity directly benefited the most vulnerable. Although in fact land needs are modest, the access to suitable land and continuous access to water to conduct relatively extensive agricultural activities were not available to all potential participants. Furthermore, it required a focus on seed production that would be demanding for those whose income depended solely on subsistence agriculture. It is therefore questionable whether it was a realistic option for the poorest and most vulnerable farmers. There was also little basis for analysis of cost-effectiveness of the partnership. This would be highly recommended. Even if farmers profit (and, as noted above, this was not documented), inputs from CARE in payments to EWSI and subsidies for farmers should also be factored in.

(5) Provision of Climate information

As climate change and erratic climatic cycles contribute to crop failure, food insecurity and poverty in the region, access to climate information can enable farmers to make better decisions.

This novel approach to improving farmers' skills and productivity included linking farmers with the national meteorological agency, Badan Meteorologi dan Geofisika (BMG), through seed fairs, other farmer's events and a climate field school project piloted with two farmer groups in the first quarter of the project. Results show that this was a potentially useful approach, enabling farmers to better interpret and predict the weather to decide when to start planting.

Nevertheless, farmers' behaviour did not change instantly. Some farmers reportedly failed to apply climatic information and suffered crop failure due to premature planting. Should further efforts be planned, they should look at establishing stronger, more permanent links between farmers and BMG to help them apply more appropriate farming practices.

(6) Agriculture extension services

Poor agricultural extension services contribute to farmers' ignorance about good farming practices. Addressing this issue by increasing the skills and knowledge of agriculture extension officers was a logical intervention.

The PENA II team made great efforts to train government extension workers in PTD and LEISA concepts and techniques. However, although trainings were successful in their own terms (post-tests showed excellent results) impact on services was questionable. Most farmer groups surveyed rarely met or received technical assistance from extension officers. This suggests that a more comprehensive approach than simple capacity building was called for. Deeper structural issues affecting services would likely include coordination with other agricultural agencies, lack of operational funding and lack of incentives for officers to carry out their duties.

At the same time, capacity building and trainings were well-received and did have some impact. In one spin-off, for example, a project manager from the local government-managed and IFAD-funded PIDRA project who received training planned to apply LEISA/PTD techniques in future project activities.

c. Water

(1) Water access

Water is a valuable resource in this arid region, where the dry season lasts for 8-10 months and rainfall is irregular even in the rainy season, and where agriculture predominantly relies on rain-fed systems. Lack of sufficient access to clean water affects many households, especially those living on the edge of subsistence.

PENA II successfully installed water supply systems for six communities and one TFC. Rather than drill boreholes, as in the proposal, a decision was taken to build gravity-fed systems from existing water sources. This was appropriate, as it offered real benefits, at the same time as being more feasible, simpler and cheaper.

All three water supply installations examined were constructed with closed concrete reservoirs and cut-off drains to protect them from surface contamination and runoff. In each case, community members greatly appreciated the work, which significantly reduced time and labour required to collect water. Water is also of better quality, although still requires boiling or chemical treatment due to coliform content. Serious efforts were made to calculate and ensure that SPHERE standards were met.

Sustainability was also addressed through establishment of a Water Management Committee (WMC) in each site to maintain the systems. In general, committee members appeared to possess sufficient skills to fix basic problems in piping and cleanse sand filtration systems. Some had also developed user payment mechanisms to cover the cost of spare parts. However, committees should also have been trained to protect the spring and installation, for example to prevent animals defecating around the spring by building fences.

In a project of longer duration, continuous water availability and quality would need to be considered. Education on appropriate water use and water recharge would be a great advantage. Committees and water users should also be more aware about the water cycle, and encouraged to take an active role in protecting and preserving water supply in the area.

(2) Safe Water System (SWS)

To reduce water-borne disease such as diarrhoea, SWS solution and safe water storage were provided to households. This approach has been widely applied in emergency situations.

However, there were problems in implementation, including the erroneous procurement of 5-litre jerry cans instead of 20-litre ones by CARE HQ in Jakarta. Although women reported their burden in collecting fuel wood and cooking water for the family were reduced by the use of SWS, the (small) containers were more often taken to the field by men who could then prepare drinking

water for themselves. This left the household without appropriate water storage, leading to re-contaminated water. More education for beneficiaries on water storage was also needed.

Due to inadequate M&E data, it is not possible to assess the impact of this approach on prevalence of diarrhoeal disease. But there is strong reason for doubt. In addition to problems with incorrect use of SWS and inappropriate water storage, causes of diarrhoea include more than just lack of access to safe water, and the link between safe water, diarrhoea and malnutrition is not a simple or linear one. Future work should take this into account.

There was also no strategy for making the SWS intervention sustainable. SWS is not for sale in the area. This raises concern that demand was created for a product not normally available.

d. Government

(1) Notable success

The project attained a notable result with a five-year commitment from TTU district government to fund and manage three TFCs, with concrete budget commitments for 2006 and 2007. This was perhaps the most significant target for institutionalization, and despite a major hiccup with stoppage of TFC service delivery for 3-4 months due to administrative issues in government, it represents a major success in institutionalizing activities from the one-year project.³

Further, a noteworthy spin-off from the project was the reported intention of agricultural extension workers to incorporate LEISA techniques into a locally-implemented project. This was clearly linked to inclusion of government extension workers in trainings and field activities, and testament also to excellent relationships of project staff with members of the relevant government agency.

More generally, key factors in success included:

- Excellent working relationships with government actors at all levels. Significant efforts were made to involve relevant government agencies and staff in trainings and events. The team also networked and consulted extensively, meeting and briefing policy makers and including government staff in project monitoring and evaluation events.
- Special efforts to showcase projects to policy makers through field visits clearly paid off. Notably, prior to the government decision to fund TFCs, project staff arranged field trips for members of the district legislative and executive to project locations.⁴
- Positive government view of CARE. Evaluators interviewed a wide array of government stakeholders at various levels in NTT province and TTU district. Beyond routine praise, a remarkable number provided informed comment on CARE's perceived strength in grass-roots empowerment and technology transfer based on personal field observations.

(2) Some problems

While there were notable successes, progress towards institutionalization or handover of other activities to district government agencies was questionable.

The most serious issue was handover of the HHMS database to three *puskesmas* and the DHO. This handover, limited as it was in scope (it was regarded as a 'pilot' by most involved), was rushed towards the project end and carried out despite the fact that the database was not fully functional. Additional problems included lack of computer skills of government users and limited training, lack of manpower to carry out data entry and lack of funds from DHO to facilitate data

³ One valuable lesson from hitches in government budgeting is the advisability of earlier 'socialization' to policymakers and more intensive tracking of the budget process.

⁴ It is worth noting that efforts to institutionalize change at district level were more or less limited to TTU district, where the vast majority of villages served by the project were located. While relationships with district government in Kupang district were said to be productive, limited project coverage and distance of local government offices from project locations would have posed significant barriers for efforts to handover activities to local government.

transfer from *posyandu* to *puskesmas*. This meant that the database was of little use to the *puskesmas*, or to DHO end-users, who had neither complete data nor the ability to analyse it. There was also no plan for technical backstopping after the project end.

Less serious, but worth noting, was dubious success in handover or 'advocacy to government to continue' other activities. These included: CFC, RUTF (therapeutic food), COME, SWS and de-worming tablet provision. The project also intended to 'link' farmers to extension services, agricultural research centres and climate information. Problems included:

- Improving service delivery calls for more holistic analysis and solutions. While the project was not expected to embed change, design did gesture at improving district services, mainly through capacity-building and lobbying. Yet, as in the example of HHMS above, problems in service delivery are attributable to more than lack of capacity. In particular, there was little evidence that trainings for extensionists would lead to improvement in service-level. In other cases, while CARE created one-off opportunities for farmers to meet agriculture researchers and climatologists, it did not promote sustainable links. Finally, lobbies from non-local institutions, although sometimes effective, will not sustain.
- Activities 'advocated to' government were in some cases not aligned to national guidelines. Specifically, RUTF treatments for malnutrition could not be provided by *puskesmas* who follow national feeding guidelines for treatment. Continuation of supply of de-worming tablets provided by CARE was also said to be in tension with national procedures followed by *puskesmas*. While unproblematic for activities implemented by CARE, this was a barrier to hopes that government would continue activities after project end.

e. Gender

The extent to which gender markers in the proposal translated into project activities was not fully assessed. On its face, inclusion of men as targets for nutrition messages was positive and monitoring and PRA data did encompass gender. However, staff was not given gender training.

While participation of women in mixed gender-activities, including in farmer groups and Water Management Committees, was reportedly good, the quality of participation appeared to be somewhat less so. Men tended to play a dominant role.

Strong links between malnutrition and gender and cultural issues would also seem to warrant greater focus on these issues in project design and capacity-building. A number of interesting themes emerged in this respect:

- Malnutrition in West Timor has clear links to gender entitlement. Men eat first and consume the most nourishing foods. Including men among the targets for nutrition messages is a good start. CARE should continue to develop effective approaches here.
- Traditions surrounding pregnancy and birth affect health. Food taboos for pregnant and lactating women are all-pervasive. Traditions such as 'smoking' women and infants for up to three months after delivery also lead to conditions ranging from pneumonia and other infections to burns which are reportedly sometimes fatal.
- Heavy workloads for women throughout the life cycle contribute to poorer health.
- Impressions from project data and field surveys suggest more specific ways to analyse vulnerability to nutrition insecurity in relation to lack of male support – including in female-headed households or those where the household head is absent. Deeper analysis might be interesting here.

In summary, it would be desirable to see greater awareness of gender issues in design and more capacity building for staff to increase ability to deal with it in project activities.

SECTION IV: Impacts

a. Overall impact on malnutrition

The main indicator of success for the project was percentage of under-fives with Global Acute Malnutrition (GAM). Baseline and end-line surveys for PENA I and II show that this declined from 15% to 9%. Likewise, HHMS monitoring shows a trend of slightly decreasing GAM. However:

- Figures from HHMS were significantly lower than baseline and end-line surveys (although the trend was the same). This suggests that there were problems with data quality or with survey sampling (HHMS covers all children <5 attending *posyandu* as opposed to the survey on a sample of households).
- No data are available on *posyandu* attendance rates. All respondents (women in the community, *kader*, midwives) reported that this ran at 100% of under fives in their catchments areas. This is abnormally high and calls for more examination.
- Seasonal fluctuation in GAM rates and short project duration made data difficult to interpret. It is not clear whether recorded decreases were real or merely reflected the downward part of a sinusoid graph.
- No control data were collected. Lack of a control group means that it was impossible to directly attribute decrease in GAM rates to the intervention. This was a serious flaw in M&E design.

The project might have achieved impact on GAM rates, which by all measurements declined. However, problems with the M&E framework and measurement mean that this remains a subjective and qualified judgment, rooted in assessment that activities were generally well-implemented and impactful.

b. Assessing the 'nutrition security' approach

Evaluators were requested to assess the extent to which integration of sectoral activities was successful in exploiting synergies to achieve impact on under-five malnutrition. This so-called 'nutrition security' approach was based on holistic analysis of the causes of malnutrition, and provided the theoretical background for integration of health, water and agricultural interventions.

Assessment of the contribution of the various sectoral interventions to the project goal was hampered by lack of access to data. This was partly due to weaknesses in M&E, documented in the section on monitoring systems above. Impacts were sometimes inadequately or incorrectly measured, while HHMS and NUTMON systems were also not well linked, making it hard to compile and analyse data, e.g., on health/ agriculture links.

Nevertheless, evaluators drew the following tentative conclusions:

- **Increasing macronutrient and micronutrient intake** by strengthening health and agricultural services was a highly ambitious objective, and outputs and activities did not justify its scope. No specific attempt was made to increase micronutrient intake and M&E was not designed to measure changes in intake. The methods used for data collection and analysis in surveys were flawed.
 - Community and therapeutic feeding responses were appropriate and seemingly successful in management of malnourished children. Sustainability of TFC was achieved through local government funding. But without LG commitment to continue community interventions, sustainability will be low due to food shortage.
 - Agricultural production of beneficiary households appeared to display an increasing trend. Activities will sustain at community level, but not in local government services. There was insufficient data to analyse link to soil nutrients or impact on child nutrition.

- Links to market and private sector were promoted through staff networking. Short-term results were reportedly good but will not sustain if no follow up action is taken. Sustainability of the EWSI linkup is not clear but is continued by another project. Link of income increase to nutrition was not determined.
- **Reducing diseases impacting on nutrition**, while theoretically appropriate was too ambitious and activities (training health staff and providing SWS) insufficient to reach the goal. COME was suitable and had apparent impacts, including on childbirth, birth weight and breastfeeding. But overall, funds would have been better allocated under the other two objectives, enabling more focus and clearer impact.
- **Increasing access to clean water** was an appropriate objective and likely had a positive impact on health and agriculture. Sustainability of systems seems quite good, with some active WMCs formed. But only six villages were served, and greater coverage would have been an appropriate use of funds.

c. Evaluating sustainability

It was difficult to settle on a framework within which to assess overall impact and sustainability. The one-year 'emergency' project was itself a follow-on from PENA I, and made plenty of gestures towards sustainability and institutionalization - it was clearly not intended just as a 'band-aid' solution. Yet at the same time, staff tended to insist that as an emergency response, the project should really be judged on short-term results and impacts. Longer-term impact and sustainability, it was said, were to be embedded through a follow-on project. However, funding for this was not certain and had not been secured prior to the project end.

This is closely related to the question of how successfully the project implemented the so-called Link between Relief, Rehabilitation and Development (LRRD) approach, introducing an appropriate mix of approaches ranging from relief, through self-help to institutionalization.

Before drawing any conclusions, it is worth reiterating the main findings on short-term/ long-term benefits and sustainability:

- Health-related activities focused on relief typically used local services as a channel for interventions. This was appropriate. But, in most cases, change was not embedded in services. In particular, CFC and COME will not sustain without DHO funding.
- Greater focus on water access would have been appropriate.
- Self-help activities, including LEISA, *lopo*, farmer groups, and water systems and WMCs generated good participation and contributions, and seemed reasonably sustainable even if knowledge transfer and facilitation were sub-optimal in the short timeframe.
- A focus on short-term results in some cases led to neglect of activities with longer-term benefits. This was particularly visible in the focus on the short-term soil fortification aspects of LEISA and the policy to introduce long-term crops and conservation techniques.
- Linkages between farmer groups and private sector or government extension, research or climate information services were based on one-off networking and events organised by project staff, and will not sustain.
- Handover of TFCs was a notable success. But many efforts to achieve local government continuation of other project activities were less successful. This was partly because the complex and entrenched nature of problems meant that capacity building was not a sufficient solution. In two cases, lack of fit with national health procedures also meant that it was unrealistic to expect handover to local government.

It seems reasonable to conclude that for the most part the project did introduce a good mix of relief and self-help approaches, with the rider that water access warranted greater focus. But although the project achieved handover of TFCs to government, in other respects efforts to

institutionalize change in health and agricultural services and to sustainable link farmer groups to government services and markets did not have impact.

In large part, the strategy for bolstering sustainability and institutionalization was premised on hopes for a follow-up program. This was not unreasonable, particularly in view of CARE's long-term commitments in the area. But even if funding for follow-up were guaranteed, the project could have been more effective if design had been more streamlined. Greater focus on fewer activities, including more work on water access, would have helped to generate clearer impacts, while more focussed attention on fewer targets for institutionalization might have achieved more change, both within and beyond the one-year project.

SECTION V: Lessons learned

Results and capacity built during its predecessor undoubtedly contributed to some of the most impressive elements in PENA II. Implementation of its highly ambitious array of health, agriculture and water supply interventions was generally excellent. This was achieved through the impressively tight management and creativity of a strong and committed project manager and team.

There was strong beneficiary participation and satisfaction with most of the project activities, which met real needs. High levels of community contribution and sustainability were particularly evident in self-help activities such as farmer groups, LEISA/ PTG, *lopo* and water system construction. The project also recorded a highly successful handover of TFC to local government in TTU, which took up management and funding of three TFCs in its 5-year development plan, and has already budgeted annual allocations of Rp 150 million for 2006 and 2007.

But there were also a number of weaknesses. Design of the project was overambitious, and objectives were not fully met by results and activities. There were also too many targets for institutionalizing change and creating linkages to government services and markets. Meanwhile, self-help and community-based approaches tended to promote sustainability, but where they depended on external inputs, as in COME and CFC, activities would not sustain without more focused efforts to institutionalize them. Finally, the M&E framework for the project was incomplete and did not support analysis of impact or contribution towards it. M&E systems also suffered from poor quality control and were inaccessible and hard to link.

Key lessons learned from this project include:

- A strong and skilled project manager and team, and tight but participatory management, were largely responsible for the generally exemplary implementation. CARE should place priority on staffing and management skills as a key condition for successful projects.
- Support functions – procurement, HR and administration – provided strong backup for the project, which piloted a new decentralized model for support. This model attracted high praise from project staff, who found it highly responsive to project needs. Since PENA II has proven that the piloted management model works well and contributed to the effectiveness of the project implementation, CARE should take steps to introducing this model more generally. A separate report for CARE's internal use provides deeper analysis of the advantages and disadvantages of this model, and should be given serious consideration by management.
- Although the 'nutrition security' framework for the project and individual components within it was relevant to needs, design was overambitious. Objectives were overstated, and not fully met by results and activities. More focussed and concentrated efforts to reach fewer objectives would have enabled clearer impacts and stronger synergies between components. In future, design should be based on more rigorous conceptual

frameworks and technical inputs. Field and support staff should also be included in design in order to provide 'reality checks'.

- Community-based and self-help efforts in particular were good in promoting sustainability. However, those that depend on external inputs – particularly community feeding responses – will not sustain without stronger efforts to institutionalize activities.
- Institutionalizing change/ creating linkages to government services and markets typically require more than capacity building and lobbies or one-off networking events. This project adopted too many targets for institutionalization/ linkages and would have been better to concentrate efforts on fewer targets. In addition, handover to government should not be rushed and should be supported by adequate training, manuals and technical support.
- Monitoring and evaluation frameworks and systems demand attention. More effort should be made to ensure that M&E frameworks are capable of demonstrating impacts and contributions towards impacts. It is both essential and possible to integrate strong M&E systems in project design and budgeting. M&E systems were also relatively inaccessible to staff, difficult to use and hard to link. Quality control of data collection and entry was also non-existent.

APPENDIX 1: TOR for the evaluation

TERMS OF REFERENCE

Final evaluation

PENA (Provision of Emergency Nutrition Assistance II) program

Date: November 9, 2006
Implementing agency: CARE International Indonesia
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Program title: Evaluation of PENA II (Provision of emergency Nutrition Assistance II)
Country/region: Indonesia/ West-Timor
Targeted time schedule: Evaluation to be held end of November 17 - 25, 2006

1. BACKGROUND

Chronic malnutrition is a continuing problem in West Timor. The PENA II project is a continuation of the MANDIRI and PENA I projects, focusing on underfive malnutrition. During the previous projects, using the existing Posyandu structure (village health post) as an entry point, Kaders have been trained to identify and refer moderate and severely malnourished children to Community Feeding Centres (CFCs) and Therapeutic Feeding Centres (TFCs). This approach has increased participation in the Posyandu, linked children and carers to the health system, and increased awareness of health, hygiene and nutritional messages.

PENA II was implemented in order to build on and consolidate activities that have proven to be successful during previous projects, with the additional focus on capacity building aspects and handing over of key activities/systems to GOI such as the Therapeutic Feeding Centres. PENA II was implemented in the same 2 districts in West Timor (TTU & Kupang) and focused on improving household level access to food and water, improving food utilisation, as well as reducing the incidence of disease (particularly those that impact on nutritional status).

Lessons learned from PENA, MANDIRI and other projects implemented by CARE in West Timor demonstrated that a more holistic approach to addressing malnutrition as a chronic problem of the region will enable efforts to achieve greater impact and sustainability. In response, CARE is developing a long-term strategy that will work in partnership with AusAID's ANTARA program and WFP in West Timor, to address the underlying causes of malnutrition.

The project aimed to improve the nutritional status of vulnerable groups (in particular underfives) affected by the West Timor food and nutritional crisis. This was to be achieved through the following objectives:

- Increase macronutrient and micronutrient intake for vulnerable households by strengthening health and agriculture services
- Reduce diseases that impact on nutritional status by strengthening health services
- Increase access to water supply

2. OBJECTIVE AND FOCUS OF EVALUATION

This mission is to be a final, independent evaluation for AusAID and CARE on the design, implementation, approaches and lessons learned in the PENA II project.

Specifically, evaluators are expected to:

1. Review the quality of the project design
2. Assess the quality of the implementation and documentation
3. Assess the impact of the project on underfive health and nutrition with specific reference to project goal and objectives
4. Assess the technical quality and suitability of project approaches within a transitional development framework
5. Formulate lessons learned for future programming in West Timor and potential upscaling of activities in other areas of the country

The results of the Mission will be presented in a report and stakeholder workshops.

3. EVALUATION TEAM COMPOSITION

As the PENA project consists of a number of various components, the evaluation of the program requires the input of a mix of experts. The following experts will be recruited to ensure that all project components are sufficiently covered:

- a. Health and Nutritional expert (Team Leader);
- b. Livelihood and Environment expert;
- c. Partnership/Governance expert;
- d. Management specialist

These experts will not have had prior involvement in project development or implementation and will operate independently on this evaluation.

The team is expected to work together to ensure that they cover cross-cutting issues in areas such as community development and participation.

4. LOCATION AND DURATION

A briefing on November 17 in CARE Jakarta office will mark the start of the mission. The field visit for the evaluation will take place between November 19 – 25 including travel time:

Program	Day	Date	Health & Nutritional Team leader	Livelihood and Environmental	Partnership	Management
Desk review and Briefing Jakarta	Fri	17	1	1	1	1
Travel to West Timor	Sun	19	1	1	1	1
Field visits, local travel, meetings, documents review, report writing on site and preparation of interim report in West Timor	Mon, Tue, Wed, Thur	20-23	4	4	4	4
Workshop in West Timor	Fri	24	1	1	1	1
Travel back	Sat	25	1	1	1	1
Total # working days			8	8	8	8

All transport costs will be covered by CARE Indonesia through AusAID funding. The evaluation team members are all expected to use their own laptops for the collection and derivation of the necessary reports. It is not expected that this equipment will be a cost charged to CARE. At the end of the mission, the Evaluation Team Leader may be asked to extend his/her activity for further clarification and modification of the final report if necessary.

CARE's office staff and field staff will facilitate the tasks of the evaluation team in providing explanations and necessary documentation, equipment and assistance. Necessary vehicles with driver will be provided to the team.

The final evaluation mission report should be completed before the end of December 2006.

The locations of the assignment are Jakarta and West Timor. The working languages will be English and Indonesian. The Final report will be written in English.

5. EXPECTED OUTPUTS: REPORTING AND WORKSHOP

The key outputs of the evaluation team are:

1. A **final report** which will contain:
 - An executive summary (maximum 1 page)
 - Introduction including background and methods of the evaluation
 - Findings
 - Lessons learned and Recommendations

- Annexes, including at least Mission's itinerary, the persons and institutions met, powerpoint presentation and core documents

The evaluation team will submit to CARE and to AusAID an advanced softcopy of the 10-15 p (plus annexes) draft final report within one week after completion of the field visits. CARE and AusAID should provide comments to the draft final report within two weeks of receipt. The final report will be submitted within two weeks after receiving comments on the draft report.

The final report will be submitted by express courier to the AusAID delegation in Jakarta and the CARE office in Jakarta, in the form of two hard copies and one CD-ROM.

2. Powerpoint presentations for stakeholder workshops

Following completion of the field trip, the evaluation team will present initial findings to key stakeholders during workshops in West Timor. A half-day workshop will be held with all project staff and key stakeholders will be invited to attend. A second half-day internal workshop will be held for key management staff. Evaluators will facilitate and document inputs from these workshops.

6. FINAL REMARKS

During all contacts with the Indonesian Authorities, or any project or organization, the evaluation mission will clearly identify itself as an independent team and not as an official representative of CARE or AusAID. All documents and papers produced by the evaluation team will clearly mention on its first page a disclaimer stating that these are the views of the evaluation team and do not necessarily reflect those of AusAID or CARE.

APPENDIX 2: Core documents

As the PENA II project can not be seen separate from its precursors (MANDIRI and PENA I), the team studied the following documents:

- Proposal PENA I
- Proposal PENA II
- Baseline survey report of PENA I
- End-line survey report of PENA I
- MANDIRI Evaluation report
- End-line survey report of PENA II
- Minutes of Next Steps workshop PENA II
- Report of evaluation PENA II by AusAID
- 4th Interim report of PENA II

APPENDIX 3: Itinerary and key informants

Management interview schedule

20 Nov – group with PSU and PM PENA II in Kefa; interview with PM, finance, HR, procurement, admin officers PENA II; interview with ROM in Kefa

21 Nov – group discussion with PSU, PM MIAT, PO Pulih in Atambua

22 Nov – group discussion with finance, HRD, and PM Pena II and ROM in Kefa

APPENDIX 4: Presentation of findings, 24/11/06