CAMBODIA:
MULTI-BENEFIT FOOD & HEALTH ENTERPRISE DEVELOPMENT MODEL:
PROGRAM REVIEW

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ACRONYMS

ADRA  Adventist Development and Relief Agency
BASICS  Basic Support for Institutionalizing Child Survival Project
EPI  Expanded Program on Immunization
FAO  Food and Agricultural Organization
HKI  Helen Keller Institute
IDE  International Development Enterprises
IEC  Information, Education, and Communication
KAP  Knowledge, Attitudes, and Practices (study)
LWS  Lutheran World Services
MCH  Maternal and Child Health
M&E  Monitoring and Evaluation
MOA  Ministry of Agriculture
MOH  Ministry of Health
NCWG  Nutrition Communications Working Group
NGO  Nongovernmental Organization
NPAN  National Plan of Action of Nutrition
OMNI  Opportunities for Micronutrient Interventions Project
PEC  Primary Eye Care
PVO  Private Voluntary Organization
RETA  Regional Technical Assistance Programme
UNICEF  United Nations Children’s Fund
US  United States of America
USAID  United States Agency for International Development
VAC  Vitamin A Capsule
VAD  Vitamin A Deficiency
WHO  World Health Organization
EXECUTIVE SUMMARY

The primary purpose of the review of the Helen Keller International (HKI) project "Multi-Benefit Food and Health Enterprise Development Model" was to provide a recommended implementation strategy for the remainder of the grant. The review was asked to examine progress to date, the relevance and effectiveness of HKI's current micronutrient strategy in Cambodia, opportunities to improve the micronutrient strategy to achieve nationwide sustainable impact, and to identify the specific management and technical requirements of a revised strategy. The review took place between March 30 and April 12, 1997. The team members were comprised of a representative of USAID/Cambodia, a representative of HKI/New York, and an independent consultant.

HKI efforts in national policy and strategy development are proceeding satisfactorily. HKI was the primary instigator of national efforts to address vitamin A deficiency and is maintaining a prominent role through its partnership with the Ministry of Health and UNICEF in piloting a methodology for vitamin A capsule distribution through the Expanded Program of Immunization (EPI). Together with the Ministry of Health and HelpAge, HKI is piloting a strategy for the provision of primary Eye care services. HKI has been a major motivator in the field of iodine deficiency diseases (IDD), sponsoring a national workshop which directly led to the formation of the IDD sub-committee.

The two program components which gave cause for concern were the vegetable gardening component of the integrated eye care/gardening model and the involvement of HKI in the salt iodization strategy to address iodine deficiency diseases (IDD). Progress with both these components has been slow, largely owing to turn-over of HKI staff and to technical capability for meeting the requirements of implementation.

Information has been gathered in Takeo for the monitoring and evaluation of the integrated model and for designing appropriate nutrition education (including colostrum). However, there is no complete plan of action, and for vegetable gardening, the only outputs have been identification of a central nursery site and the sinking of a well. In the meantime, a number of other organizations have established gardening projects—mostly it appears for commercial purposes, but at least one organization has, with strong technical assistance from HKI, developed household nutrition gardens. No other organization is offering the eye care and gardening model proposed by HKI; however, a revision of activities in Takeo is recommended. This recommendation is made in view of the delays in implementing this model and of the greater opportunities for impact at national level through HKI technical assistance to organizations already active, rather than direct HKI involvement in gardening. The primary eye care pilot should proceed, as this will contribute to the development of a national strategy. The low-cost year-round demonstration nursery should also proceed to provide a training site (primarily for the Ministry of Agriculture/PVOs/NGOs) and to test sustainable methods of good quality seed multiplication. HKI should identify three to six private voluntary organizations/nongovernmental organizations (PVOs/NGOs) for partnership(s) in nutrition
vegetable gardening. HKI can provide technical assistance in the design of the crop mix, cultivation practices, monitoring and evaluation, and in nutrition education. Additional short-term technical assistance will be provided to strengthen in-country capacity to process and analyze data for impact evaluation.

In procuring small-scale salt iodization equipment, HKI Cambodia was entering an area of food technology in which it has little technical depth—its main strengths being in advocacy, quality assurance monitoring, and IEC (information, education, communications). However, an assessment of the salt boiler situation was made by HKI and a useful role can be played in testing the feasibility of small-scale iodization for the urban market to complement UNICEF’s testing of larger scale operations for the rural market, both these efforts feeding into the development of an overall plan of action for salt iodization. HKI will require short-term external technical assistance for the setting up and assessment of the pilot test. In addition, HKI should prepare proposals for a quality assurance system as a further contribution to the national plan of action, an outline draft of which is expected to be tabled at a UNICEF-sponsored workshop in September 1997. HKI will also review the findings of the UNICEF goiter survey (nearing completion) together with findings from the ACIF/UNICEF well dispenser project as a means of drafting a policy proposal for short-term interventions in areas with high incidence of IDD, such as North East territories.

An effective IEC program, incorporating social marketing techniques, is considered essential for the success of vitamin A, IDD, and primary eye care initiatives. The review, therefore, recommends the strengthening of existing HKI/Cambodia capacity through the recruitment of a nutritionist with special expertise in IEC. It is probable that recruitment will be international and should be for an initial one-year period, with possibility for extension.

In view of the changes proposed, a no-cost, six-month extension to the grant period is recommended in order to achieve the outcomes given in the revised work plan.

BACKGROUND

In September 1995, USAID awarded Helen Keller International (HKI) a grant of $1.5 million to improve the survival, health, and productivity of Cambodia’s most vulnerable women and children. The grant focus was on the institutionalizing of primary eye care and on the promotion of sustainable nutrition interventions to improve micronutrient status. The awarding of this grant—the third to HKI/Cambodia—was based on recognition of HKI’s achievements in Cambodia and its prominent policy role in vitamin A deficiency. The related achievements of HKI in documenting the public health significance of vitamin A deficiency, in providing technical assistance support to private voluntary organizations (PVOs) and local nongovernmental organizations (NGOs), and in convincing key Cambodian and donor organizations to implement nationwide vitamin A interventions led the USAID Mission to include micronutrients as an integral part of its maternal and child health strategic objectives.
Since the program's inception, changes have taken place in Cambodia which may have significant implications for future implementation. These changes include shifts in donor and PVO/NGO involvement and the findings of a number of surveys and studies relating to micronutrients. In addition, HKI experienced delays in implementation, owing to a number of factors, including changes in key staff posts. Accordingly, a program review was considered timely. The review would assess the relevance of the HKI program activities in the light of recent changes, with a view to enhancing the leadership role of HKI and ensuring that activities could be sustained beyond the life of the grant and with as nationwide an impact as possible. The program review would also assist HKI to focus the national policy activities to meet the strategic objectives of the USAID Mission and the needs of Cambodia as a whole.

Specifically, the program review was asked to—

- assess HKI progress to date in relation to the stated objectives and targets in the original proposal and first year workplan.
- identify gaps in the national nutrition and micronutrient policy and legislation where HKI might play a significant role.
- assess the feasibility, relevance, and appropriateness of current HKI targets, given the current nutrition and micronutrient situation in Cambodia, with particular emphasis on vegetable gardening and iodine activities.
- undertake a grant budget and pipeline analysis.
- assess HKI coordination and feedback mechanisms with government counterparts, USAID, other donors, US PVOs, and local NGOs.
- assess HKI's management and technical support systems.
- recommend adjustments to the end-of-project objectives based on the current situation in Cambodia.
- identify where HKI can play an appropriate and significant role in national nutrition and micronutrient policy and legislation, and national program implementation in Cambodia.
- recommend a specific strategy of action for HKI vegetable gardening activities, specifically addressing the need for national expansion and sustainability.
- recommend a specific strategy of action for HKI iodine activities that specifically address the need for national-level coordination of iodination with the commercial salt sector.
- recommend the most cost-effective interventions to pursue until the end of the grant.
identify the specific management and technical requirements of a revised program strategy.

recommend specific changes in coordination with in-country organizations and counterparts that would facilitate the revised program strategy.

In view of the limited time available, it was agreed that the review would focus primarily on the identification of cost-effective interventions for the remainder of the grant period, with particular reference to iodine deficiency diseases (IDD) and vegetable production for vitamin A deficiency (VAD).

The review took place between March 30 and April 12, 1997. The list of key persons met is given as Appendix A.

PROGRESS TO DATE

A summary of major activities and outputs September 1995 to March 1997 is given as Appendix B. This summary has been taken from HKI quarterly reports.

A. **Policy and Strategy Development**

The main strategic objectives of HKI/Cambodia are the protection of maternal and child health through interventions to improve the micronutrient nutritional status of women of reproductive age and of children under-6-years of age, and the prevention of blindness through the provision of primary eye care services. The two objectives are linked by an integrated IEC strategy.

The major achievements towards these objectives can be summarized as follows:

- HKI played a strong role in the development of the draft National Plan of Action of Nutrition (NPAN), as acknowledged in the preface to the document, which was approved by the Council of Ministers in January 1997. HKI is a member of the Policy Working Group of the Regional Technical Assistance Programme (RETA), which has its main focus on food security and which will play a key role in developing strategies and implementation plans for the NPAN. There will be a future leadership role for HKI in strategic planning for the reduction of iron deficiency anaemia in women of reproductive age, which is a stated objective in the NPAN. While some concern has been expressed that health services are not sufficiently strong to address this issue at present, the World Health Organization (WHO) is bringing in a consultant to look at iron (probably May 1997). There is a role for HKI in updating the information base (the last population-based survey was in 1982) and in awareness creation.
As a member of the sub-Committee for the Prevention of Blindness, HKI has been instrumental in the development of the national primary eye care (PEC) strategy and a pilot project plan to be implemented in Takeo (HKI) and Siem Reap (HelpAge) in 1997. Training of PEC workers has begun in Takeo.

Following on from its highly successful advocacy role to bring vitamin A deficiency onto the national agenda, HKI has provided strong technical assistance to the vitamin A supplementation program, providing (initially for the national immunization day (NID) approach) training of health workers in capsule administration and reporting; assistance in the community awareness campaign; and advising and monitoring for capsule procurement. Together with the Ministry of Health and UNICEF, HKI developed a strategy and pilot program for the integration of capsule distribution through the EPI system. This pilot will be expanded to two provinces in July 1997 and possibly to an additional eight in November 1997. The major constraints are likely to be logistical rather than technical, but HKI will continue to monitor closely capsule procurement and training.

HKI is sharing the leadership role with UNICEF with regard to IDD. Progress in this area has been slower than expected for three main reasons: the need to establish the database for planning; funding constraints within UNICEF; and interagency/intersectoral coordination. The database is now almost complete, the findings of a goiter prevalence survey being expected by June (this may not be complete). A potential role for OMNI in the formulation of legislation for iodized salt may be proposed by HKI.

HKI has the leadership role for national efforts in nutrition IEC. A communications strategy for nutrition has been developed.

B. Primary Eye Care and Vegetable Gardening

The original proposal was justified on the grounds that no other organization was, at that time, involved in vegetable growing specifically to address vitamin A deficiency: any vegetable production activities being economically oriented. A demonstration model could be used to demonstrate year-round production with daily availability together with improved cultivation practices drawn from the Southern Asia region, and to stimulate interest among, and develop technical capacities of, government(s), international and local NGOs, and other international organizations. Encouraging the Ministry of Agriculture’s (MOA) translating of its policy statement on vegetable gardening into an implementation strategy would be an advocacy role of the model.

The proposal envisaged a central demonstration nursery in Takeo (selected on the basis of high prevalence of night blindness through the 1993 HKI survey) and the promotion of satellite nurseries at village level. These nurseries would demonstrate the production of a wide variety of
vegetables with high beta-carotene value and environmentally-friendly production practices, and would provide a sustainable source of quality seeds and seedlings. Nutrition education to promote increased family consumption of these vegetable types would also be provided, with emphasis on the nutrition of children under-6-years of age. Recognizing that water availability is a major constraint to vegetable gardening in Takeo, treadle pumps would be made available to interested households.

Baseline surveys have been carried out (July/August 1996) in 16 communities in 2 districts of Takeo: Samrong and Tram Kak. The food consumption survey found that though the intake of animal sources of vitamin A appeared adequate if small fish eaten with the livers are included; the additional consumption of plant sources of beta-carotene appeared to be inadequate. The gardening survey found that although approximately 80 percent of households had grown some vegetables during the previous 12 months, the proportion of beta-carotene-rich vegetables was low, approximately two varieties in both the wet and dry seasons. The HKI project in Bangladesh showed that better consumption of vitamin A-rich foods was linked to a greater number of varieties of vegetables grown and, therefore, the promotion in Cambodia of a wide variety of beta-carotene-rich vegetables is appropriate.

The gardening survey confirmed that water is a major constraint, although almost two-thirds of households reported digging of ponds for domestic and gardening use during the dry season. Although the ponds are close to houses, the time spent collecting water for gardening during the dry season was reported as being more than two hours for two-thirds of households. HKI has procured a number of treadle pumps which, it is believed, could greatly reduce the time needed for watering gardens. According to International Development Enterprises (IDE), treadle pumps are an affordable technology for most households, costing on average $55-$80 to install; short-term credit facilities would be needed by almost half of households adopting this method. IDE also reports that an increase in number of varieties of vegetables grown in home gardens occurs in households using treadle pumps. The review team noted with some concern the requisitioning by HKI (in 1995) of drilling equipment, as this step took HKI into an area in which it has no technical depth and in which it should not be directly involved. In addition, the Takeo project area poses problems in that the terrain is rocky in places and heavy drilling equipment and possibly blasting would be required in some instances. The use of treadle pumps in home-dug ponds would have been a more appropriate area for HKI support.

Qualitative research on knowledge, attitudes, and practices (KAP) regarding the growing and consumption of vitamin A/beta-carotene-rich foods, together with a brief exploration of media preferences, has been carried out.

Other than the above and the drilling of a well at the selected central nursery site, progress has been slow. The first agriculture officer hired by HKI had a low output; the new agriculture officer had been at post only one week at the time of the review. Whilst some planning discussion and drafting has been done, there is no detailed comprehensive plan of action for the Takeo project. As yet there are no clear descriptions of—
the community development methodology to be used in Takeo and the associated training needs for HKI workers.

- a production plan for the central nursery, and/or recommendations of crop mix and cultivation practices for the satellite nurseries, and associated training needs.

- the methodology for nutrition education.

Meetings between the review team and PVOs confirmed that, in the meantime, home garden initiatives with a nutrition orientation have taken place elsewhere. The team noted in particular the efforts of the Adventist Development and Relief Agency (ADRA), whose involvement was a result of HKI advocacy and who received technical assistance from HKI, including monitoring and evaluation methodology. To date, the ADRA project in Kompong Thom, Santuk District, has resulted in 150 home gardens, almost all the produce of which is eaten by the households. An evaluation will be conducted later in 1997, and while some aspects of implementation may not be sustainable, such as the use of paid garden promoters and seed multiplication, this project can provide an excellent learning experience.

C. Iodine Deficiency Diseases (IDD)

The direct involvement of HKI in the food technology of salt iodization as a strategy for IDD is unusual, HKI’s role more generally being one of awareness creation, quality assurance at household level. It would appear that HKI found itself in this technology role as a result of overenthusiasm on the part of the previous country director (who acquired small-scale iodization equipment before developing any clear plan of action) and communications breakdown between HKI/Cambodia, HKI/New York and USAID/Cambodia. In the original grant proposal, salt iodization is included as an income generating activity, rather than as a strategy for IDD. As there is no clear evidence to support this approach (e.g., salt producers being shown to be economically or nutritionally disadvantaged), there is a need to redefine HKI objectives regarding IDD.

An IDD sub-committee, of which HKI has assumed the secretarial role, has been formed to develop strategies and action plans. The strategies identified are—

- for the long-term: salt iodization.

- for the short-term: iodine dispensers in community wells in high prevalence areas (possibly to be retained as a long-term measure if iodized salt does not reach all areas with an IDD problem); iodized capsules for women of reproductive age.

Progress towards salt iodization has been slow, but this was largely unavoidable since a considerable amount of information was required in order to determine the most feasible means of salt iodization. Also, a national goitre prevalence survey was required as a basis for targeting
interventions. In addition, UNICEF had budgetary constraints. Considerable frustration at the delay was expressed to the review team by the chairman of the IDD sub-committee and by the director of the National MCH Centre. Discussions were held with UNICEF and general agreement was reached that the installation and testing of iodinating machinery by both UNICEF and HKI can go ahead: UNICEF addressing grade I salt for the majority rural market and HKI addressing refined salt for the urban market through small-scale producers. The initial output will be feasibility assessments for expansion. The findings, together with the findings from the national prevalence survey and other studies, will be used to draft an outline plan of action (through the IDD sub-committee) for tabling at a national workshop to be organized by UNICEF for September 1997.

The recent appointment within the UNICEF/Cambodia office of a nutritionist with considerable experience in the implementation of IDD strategies is expected to speed up progress considerably.

D. Information, Education, and Communication (IEC)

HKI is providing assistance in nutrition-related IEC, primarily through an interministerial/intersectoral Nutrition Communications Working Group (NCWG). HKI has the leadership role.

Through the NCWG and a (second) Nutrition Communications Workshop, a preliminary mass media strategy was developed. Qualitative research into food knowledge and practices carried out in Takeo Province was a resource for this workshop. The strategy related largely to identifying mothers and caretakers as the target audience and selecting six simple messages promoting dark green leaves, orange/yellow vegetables, and the use of colostrum. The NCWG has been working on the development of mass communications materials: two posters, one song, and possibly one radio skit. A flipchart is also proposed.

E. HKI'S Management and Support Systems

Implementation of the HKI/Cambodia program has been constrained by staff turnovers, including the country director and the agriculture officer. Whilst capable Cambodian staff have been recruited, it is recognized that close supervision is required. Technicians are generally inexperienced. It should also be noted that, for example, international agencies retain control of funding since financial anomalies are common without such control.

Staff meetings are not held on a regular basis; however, following the review, these will be instituted and used for program planning. In time, this should allow the country director to transfer more responsibility for "sectoral" planning and implementation to the sector specialists.
There is no designated deputy director. Whilst there is not the need for a specific deputy position, there is need for delegation of some of the heavy workload from the country director to one of the other staff. The community projects officer would be suitable.

There is no nutritionist currently on the HKI/Cambodia staff, nor do there appear to be locally available technical resources which HKI can access. An officer with communications experience has been appointed, but there is not sufficient capacity for an innovative IEC program. As a consequence, there is a level of referral to HKI/New York considerably above the level for normal backstopping.

CONCLUSIONS

A. National Level

No major additional roles in national policy/strategy formulation are identified at this time. The absorptive capacity of government systems must be the key consideration for future initiatives in this area. As stated earlier, though HKI could take a lead role in iron deficiency prevention, the fragility of the health service system may mean that intervention at this time is inappropriate. However, HKI could explore the possibilities and requirements for updating the database on iron deficiency as part of its advocacy role.

Technical assistance is required for the formulation of legislation for iodized salt, and HKI proposes that OMNI consider filling this need.

Given the on-going involvement of HKI in piloting strategies towards nationwide adoption (e.g., capsule distribution and the development of national guidelines to expand safe VAC distribution; primary eye care), it is the view of the review team that any major additional activities (other than a possible advocacy role in iron deficiency anaemia) at this time would overload the capacity of the HKI office.

B. Primary Eye Care and Vegetable Gardening

The '95 grant proposal of a demonstration model of complementary primary eye care health and nutrition interventions—primarily vegetable gardening for home consumption and nutrition education—was justifiable at that time as no such model was offered by any other organization. To date, no organization has been identified which offers this mix, but there have been significant changes in the involvement of organizations in vegetable gardening, both for home consumption and for income generation. Whilst the leadership role of HKI in primary eye care remains unquestioned, two major factors have led to the conclusion that implementation of the original model would not be a cost-effective use of HKI's resources. These factors are—
the identification of PVOs who have already initiated nutrition-oriented vegetable
gardening activities, e.g., ADRA. Experiences from such activities could provide the
basis for the development of a vegetable gardening model, making the direct involvement
of HKI in similar community-based production activities unnecessary.

- the technical constraints experienced by HKI, e.g., failure to develop and initiate
implementation of a comprehensive plan of action for the vegetable component; the
technical demands and related financial costs of overcoming the water constraint in the
Takeo project area.

A more effective use of HKI's resources in terms of national impact would be the promotion of
nutrition vegetable gardening in the short-term among partner PVOs/NGOs, with the longer term
aim of adoption by the Ministry of Agriculture, Ministry of Women's Affairs, etc. Whilst
vegetable production is on the agenda of the MOA, it has low priority at present, though FAO is
working with MOA on commercial vegetable production.

No major constraints preventing HKI from expanding its partnership with PVOs were identified.
The potential technical contribution of HKI is clear. The types of crops rich in beta-carotene are
known; the HKI central nursery/satellite nurseries model can be tabled; the HKI monitoring and
evaluation methodology can be easily adopted; and basic nutrition "messages" have been
identified (though a recommended methodology and support materials are not yet available
through HKI). There appeared to be genuine interest on the part of PVOs met, e.g., CWS, LWS.
An assessment of the outcome of the HKI/ADRA partnership, together with experiences of other
PVOs involved in nutrition-oriented vegetable gardening, such as Lutheran World Service
(LWS), would provide an excellent basis for the development of an implementation model. An
inventory of the efforts of PVOs/NGOs in this area would be a first step, to be followed by an
assessment of selected projects.

While HKI's country office has most of the capacity to engage in such a partnership with
PVOs/NGOs, additional technical assistance would be required to set up a system for in-country
analysis of information for monitoring and evaluation, in particular food frequency and vegetable
crop production data. Short-term assistance from HKI/Bangladesh could solve this problem.

The strengthening of HKI's in-country technical capacity in nutrition education/communication
would allow a more effective IEC input for consumption promotion to the vegetable gardening
component than could be realized with existing expertise.

If the central/satellite nurseries model is to be promoted, it would be advisable for the
HKI/Cambodia community projects officer and agriculture officer to visit Bangladesh to discuss
the implications of introducing the model.

The significant finding of the HKI/Bangladesh project that home vegetable gardening,
unaccompanied by specifically related nutrition education, has a positive impact on the vitamin A
status of women was not available at the time of the drafting of the Cambodia proposal, but has considerable implications for maternal and child health. The occurrence, but not the significance, of night blindness amongst pregnant women is recognized by communities, e.g., in Takeo. The expansion of the original aims to include improvement of the vitamin A status of women is required. The Bangladesh findings may, of course, be culturally related and require testing in the Cambodian environment.

Should the proposed HKI community involvement for vegetable gardening in Takeo be abandoned, the investment to date would still provide useful returns. The information from the baseline surveys and the KAP could be considered in the design of future activities in Takeo and elsewhere.

A demonstration nursery in Takeo would have value in providing a visual stimulus, most especially to the Ministry of Agriculture and local NGOs, and could be used for practical training purposes. While a detailed costing of start up and annual operational costs has not been calculated, $5,000-$10,000 (excluding personnel costs other than casual labor) is probably adequate for activities during the remaining grant period.

Sustainable methods of good quality seed multiplication at community level will be required. The HKI/Bangladesh project and the FAO are potential sources of advice in this area. The central nursery in Takeo could be involved in this activity.

Should HKI change its emphasis from a "hands on" community project to a technical assistance role of advocacy and support to interested parties, no prediction can be made regarding "adoption" rates. The impact of technical assistance is not readily measurable. In the view of the review team, on the basis of contact with a very limited number of PVOs, interest in a nutrition focus for vegetable production activities exists and could be developed. For the remaining grant period, HKI should not be expected to establish a fruitful partnership with more than six PVOs/NGOs. This must be borne in mind in determining output indicators. The measurable outputs from such a pilot would be the number of PVOs with an implementation plan and the specific technical inputs from HKI.

C. IDD

Though all details for salt iodization have not been developed, e.g., transfer to the private sector, HKI can proceed with the testing of small-scale production with one to two salt boilers as a means of assessing the feasibility of expansion.

There is a clear role for HKI in the monitoring and evaluation of the salt iodination strategy: providing expertise in quality assurance and in determining changes in goitre prevalence.

External technical assistance will be required to support the HKI salt officer in setting up the small-scale production test and in assessing the outcome. A list of candidates is available.
Once the UNICEF goiter survey report is available, HKI will be able to assist in policy development for short-term interventions in those areas with high levels of IDD (the North East is already known to be one of these). HKI can provide guidelines for the safe use of iodized capsules. These guidelines, together with a preliminary scheme for quality assurance for iodized salt, could be tabled at the proposed National Iodine Workshop tentatively scheduled for September 1997.

D. IEC

The major constraints affecting nutrition IEC are—

- the capacity and motivation of the NCWG. Members of the NCWG expect some financial incentive. This has also been reported as a constraining factor affecting the functioning of the IDD sub-committee and is a broad issue faced by all international organizations.

- technical capacity within Cambodia. No nutrition resources into which HKI could tap have been identified. Indeed, other agencies, particularly PVOs/NGOs, look to HKI for support in this technical area. Frequent referrals are made by the HKI/Cambodia office to HKI/New York, placing demands on the New York office above the normal backstopping level. The leadership role of HKI/Cambodia in micronutrient nutrition would be considerably strengthened by increasing the in-house capacity through the addition of a nutritionist to the staff complement. A nutritionist with specialization in IEC and qualitative research would be desirable. Funds could be made available from the existing budget. Proposals for the terms of reference for such a post will be developed by HKI (Cambodia and New York).

A considerable amount of information on dietary beliefs and practices is already available, though further analysis is needed as a basis for IEC planning. Qualitative research from the ADRA project, for example, requires analysis. Collation of existing information on use of colostrum in required and the identification of any gaps, as emphasis on introduction of colostrum within four hours of delivery, will be an important component of the IEC program.

E. HKI Management

The workload on the country director must be shared more equitably amongst the HKI/Cambodia office staff. It is acknowledged that there will be a requirement for close supervision, given the technical resource base and experience of staff and the environment within Cambodia for performance "incentives." However, for more efficient management and for in-house capacity building, there is a clear need for—

- regular staff meetings to plan annual and quarterly work programs and to identify input requirements.
monthly staff meetings to plan activities and review progress.

delegation of some of the country director's activities to a suitably qualified subordinate. At present, the community projects officer is an appropriate delegate.

The strengthening of the HKI/Cambodia office through the recruitment of a nutritionist with IEC specialization will also lighten the load of the country director.

V. RECOMMENDATIONS

Recommendations regarding strategies/activities proposed for the remainder of the grant period are summarized in Appendix C, together with a justification for the budget review.

A. National Level

1. The piloting of strategies for VAC and primary eye care should continue as planned. Related outputs are expected to include national guidelines for the safe expansion of VAC; educational and promotional materials to support VAC; an effective primary eye care strategy; PEC training curricula and Khmer translation of the PEC training manual; and training of trainers in PEC.

2. HKI should be prepared to assist the MOH in the development of strategies for the prevention of iron deficiency anaemia. In view of its success in advocacy for VAD, including the VAD survey and follow-up workshops, HKI could play a similar role for iron. HKI should approach OMNI regarding possibilities for collaboration in this regard. Such collaboration would be doubly advantageous to HKI, as the HKI office has little spare staff capacity at present.

B. Vegetable Gardening

1. Rather than continue with the community-based vegetable garden sub-project in Takeo, it is recommended that HKI develop partnerships in the short term with interested PVOs/NGOs and provide technical assistance in the design, monitoring and evaluation, training, and IEC components of home garden projects. Action to be taken by HKI—primarily the responsibility of the community projects officer and agriculture officer—would include—

   - an inventory of PVOs/NGOs involved in vegetable gardening, either for home consumption or income generation, together with technical expertise located in the agency concerned (e.g., is there a nutritionist, agronomist/horticulturalist, community development specialist).
an appraisal of the achievements, strengths, and limitations of a selection of projects (to include ADRA).

identification of a suggested maximum of six prospective partner PVOs.

location of available studies/surveys on food consumption and on vegetable production; development of user-friendly summaries on implications.

dissemination of findings (project experiences, studies/surveys) through a workshop for PVO partners, the main output of which could be essential components for project design and implementation support needs.

establish local capacity for processing and interpreting information from HKI M&E methodology (support to be provided through HKI/Bangladesh).

identification of training support needs and provision of the same.

an inventory of existing related support materials for production and related nutrition education, and identification of additional needs.

production and testing of additional support materials.

2. A study tour for the community projects officer and the agriculture officer to Bangladesh should be organized as soon as possible.

3. Budgetary provision for external technical assistance for the processing and analysis of monitoring and evaluation information (e.g., food frequency) should be made. A maximum total of 40 days is suggested as adequate.

4. The demonstration nursery in Takeo should be developed and should include seed multiplication methods for household level as an activity. HKI should continue to explore training and advocacy opportunities with the MOA Takeo Extension Unit.

C. IDD

1. HKI should proceed as soon as possible with the testing of the small-scale iodinating equipment with two salt boilers in Phnom Penh. An international expert in this field should be recruited to provide short-term assistance to the HKI salt officer in setting up the test, in assessing the outcome, and in developing proposals (if considered appropriate) for expansion.

2. HKI/New York should approach OMNI regarding the possibility of provision of expertise for the development of iodized salt legislation for Cambodia.
3. As part of its input into the proposed plan of action for iodized salt, HKI should prepare a scheme for quality assurance to household level.

4. HKI should, together with the MOH and UNICEF, review the findings of the national goiter survey and assist in policy development for short-term interventions targeted to areas of high IDD incidence.

5. HKI should propose to the organizers of the forthcoming National Iodine Workshop that high-level participation by representatives of OMNI and the Global Bureau of Health and Population would be desirable.

D. IEC

An international expert in nutrition with specialization in IEC should be recruited as soon as possible for a one-year period, with the option of extension to the end of the grant period. Terms of reference/job description should be developed by HKI as soon as possible. The appropriate budget amendment should be made.

E. HKI Management

1. In order to develop more of a team approach and to support sectoral planning and implementation, regular monthly staff meetings should be instituted immediately; these meetings to include work planning and progress review. The meetings could also be used to identify further needs for in-house staff capacity development.

2. In order to reduce the current excessive workload of the country director, delegation of some of the country director's responsibilities should be formally made, at her discretion, to the community projects officer.

VI. GRANT PERIOD

In view of the changes proposed through this review, it is recommended that there be a no-cost extension of the grant period for an additional six months in order to allow HKI/Cambodia sufficient time to meet outputs given in the revised work plan (Appendix C refers).

VII. POTENTIAL ROLES FOR OMNI AND THE GLOBAL BUREAU OF HEALTH AND POPULATION

1. HKI should explore with these agencies and USAID/Cambodia the possibility of assisting in the development of the national plan for salt iodization in Cambodia. In particular, defining the potential complementary role of USAID in salt marketing and monitoring
with UNICEF’s primary role in the technology of iodization, and, possibly in collaboration with Population Services International, define roles and involvement in the social marketing of iodized salt.

2. HKI should explore with these agencies and the USAID Mission in Cambodia the possibility of initiating advocacy for iron interventions through a national survey on iron deficiency anaemia. The development of political will via national survey results and follow-up awareness creation and planning workshops proved to be of great importance in the process of policy and program establishment for vitamin A deficiency and is promising to be equally effective for iodine.

3. As stated previously, high-level representation of OMNI and the Global Bureau of Health and Population at the proposed National Iodine Workshop would be very desirable.
LIST OF CONTACTS

Dr Eng Huot  Director, MCH Centre, Ministry of Health
Dr Ouk Poly  National Maternal and Health Centre, MOH
Ms Kiev Borey  Director, Social Development Division, Ministry of Planning
Dr Uch Yutho  National Eye Health Coordinator
Sok Sitheng  Chief, Office of Technique, Economics and Extension, Takeo Provincial Department of Agriculture
Keith Etherington  Program Coordinator, Christian Outreach
Jean-Francois Frys  Country Director, International Development Enterprises
Frank Mechielson  Program Officer, Church World Service
Louis O'Brien  AICF/USA
Oscar Paez  Lutheran World Service
Colin and Kim Radford  Adventist Development Relief Agency
John Deidrick  Director, Population Services International
Clyde Robinson  Vice-Director, Population Services International
Stephane Rousseau  Executive Director, MEDICAM
Harold Gray  Cambodia Australia Agricultural Extension Project
David Basset  EPI, WHO
Andrew Morris  Health Section, WHO
Denis Maire  Dengue Fever & Nutrition, WHO
Andrew Morris  Acting Head, Health Section, UNICEF
Dr Festo Kavishe  Community Action for Social Development, UNICEF
Un Sam Oeurn  Health Section, UNICEF
Gordon West  Country Representative, USAID
Inga Olesky  MCH Program Assistant, USAID
Dr Sally Stansfield  Technical Advisor, MCH Program, USAID
HKI/CAMBODIA

Mary McMurtry  Country Director
Christine Hansen  Community Projects Coordinator
Ven Keahak  Salt Project Officer
Truong Samrith  Communications Officer
Huo Kroun  Agriculture Officer
Sun Varin  Eye Health Officer
Nuon Ty  Health Educator/Community Worker
APPENDIX A

MAJOR SUPPORT ACTIVITIES AND OUTPUTS
APPENDIX A

MAJOR SUPPORT ACTIVITIES AND OUTPUTS

A. NATIONAL LEVEL

National Nutrition Plan of Action:

'95

• Final draft of National Nutrition Plan of Action completed.

• Advised the National MCH Center on the 1996 nutrition plan and budget

'96

• Participated with NNPA Committee in initial discussions for strategy/plan for Regional Technical Assistance Initiative (RETA) of ADB.

Iodine Deficiency Disorders:

'96

• Participated in the first IDD Subcommittee meeting, 6/96.

• Participated in 2nd IDD Subcommittee meeting (7/96). Agenda focused on presentation of recommendations by a UNICEF IDD program consultant. Increased proactive stance/facilitating role to be taken by HKI.

• IDD Subcommittee attained minimal level of cohesiveness and direction by its 4th meeting by agreeing to formulate a coordinated overall strategy for iodized salt production, marketing & distribution, quality control, and education/communications. HKI took on the function of secretary for the Subcommittee.

Primary Eye Care:

'96

• Technical assistance to Subcommittee for the Prevention of Blindness (PBL) in planning national PEC strategy (including development of pilot project plan) and identifying needed steps for national guidelines, curricula, IEC materials & monitoring/reporting system.
• Presentation on HKI activities in integrating primary eye care in primary health care system at special meeting of Subsectoral NGOs for Visually Handicapped with the WHO Regional PBL Advisor.

• Awareness of and support for integrating Primary Eye Care into the primary health care system on the part of eye health professionals and organizations involved in eye health (WHO, other NGOs) was obtained in 1996 National Workshop for the Prevention of Blindness (PBL). HKI presented (a) national PEC plan (which HKI had helped design) on behalf of Subcommittee for PBL and (b) HKI's PEC experience in Cambodia.

• Planning assistance to National Coordinator for PBL re. eye surgery supplies & other priority needs of national PBL plan.

B. VITAMIN A CAPSULES

National Immunization Day

'95

• Attended monthly planning meetings with MOH, WHO, and UNICEF for first nationwide distribution of VAC in March '96.
• Assisted with the design of the NID poster.
• HKI & Natl. MCH Center wrote the VITAMIN A text for the new social mobilization radio and tv commercials for 1996 NID.
• Prepared training materials to be distributed to trainers of post volunteers.

'96

• With Natl MCH Center, trained 180 health workers from all provinces in administering vitamin A capsules and reporting.
• Assisted in development of community awareness campaign.
• Participated in monitoring of first and second NID
• HKI advised and assisted in monitoring procurement for 1997 NID.
• Participated in analysis of 1996 NID & discussions for 1997 NID.
• Trouble-shooting in procurement of VAC supplies by MOH.

Vitamin A in the EPI System

'96

• Technical & planning assistance to MOH and UNICEF to integrate vitamin A distributions into the routine EPI system
Planning assistance to MOH (with UNICEF) to integrate vitamin A distributions into the routine EPI system.

- Agreement reached by HKI/UNICEF/MOH to pilot a single strategy for (eventual) thrice-yearly distributions of VAC to children aged 6 months through 5 years and lactating women within 2 months of giving birth.

- First pilot activity, including training of EPI workers in Samrong District of Takeo Province, took place in Nov-Dec, with 68% coverage attained. HKI participated in training design and delivery, provided 16,850 vitamin A capsules for pilot, helped monitor pilot, debriefed with EPI workers and "VAC in EPI" working group.

97

Analysis of results of first (district-level) pilot of VAC in EPI and report prepared; planning for second (provincial level) pilot

Technical assistance to AICF/USA on design of baseline survey for gardening activities and food consumption

Provision of vitamin A capsules to cover shortfall in NID

Monitored distribution of VAC in the NID; findings submitted to MOH and WHO.

Dry season food frequency survey in 480 households of 16 villages of Takeo implemented.

C. IEC CAPACITY DEVELOPMENT & MATERIALS

Nutrition Communications Working Group

'95

- Designed 1996 Nutrition Calendar (gardening)

- Technical assistance and funding of qualitative research on food habits and food availability in Takeo, 1/96.

'96

- 2nd Nutrition Communications Workshop, 1-5 July 1996 workshop for 18 participants. Resultant vitamin A communications strategy focuses initially on developing mass media posters and song and drama spots for radio.
• Researched graphic & performing artists for development of prototype materials, per vitamin A communications strategy.

• Production of prototypes for song and radio skit set for early January 1997.

Other Health Education/Nutrition Materials

'95

• Designed & produced new vitamin A stickers in collaboration with MOH.
• Designed & produced new 1996 pocket sized calendars
• Printed second edition of the night blindness comic book (5,000 copies)

'96

• Reprinted 5 Khmer-language eye health posters (plus revisions to one): prevention of blindness, cataract, and vitamin A deficiency treatment protocol; development of poster and community education flipchart in primary eye care.

D. SALT IODIZATION

'95

• Seconded chemical engineer from Ministry of Industry, Mines and Energy to be HKI Iodine Project Officer.

• Small salt iodization machine ordered.

'96

• New salt iodization machine tested and transferred to Kampot.

• HKI Iodine Project Officer received training in salt iodization in Thailand, 2/96.

• Assisted AICF/USA to plan IDD project baseline research and train AICF/USA IDD research teams in IDD issues. (AICF/USA funded by UNICEF to test well water iodization diffusers. Project included baseline goiter survey in 2 provinces.)

• HKI assistance to PSI & UNICEF, per workplan, postponed by UNICEF funding delays.

• Surveyed potential field sites for small-scale salt iodization against site selection criteria.

• Provided technical & organizational assistance to IDD workshop scheduled for 7/96.
• Technical assistance & collaboration with UNICEF consultants on salt iodization production & salt sector study: primarily in orienting consultants to Kampot salt fields & Salt Board; and participation in researching technical and marketing issues.

• Meetings with PSI to discuss potential collaboration in social marketing & IEC.

• Initiated translation of IDD and salt iodization reference materials. Includes such subjects as monitoring & quality assurance of iodized salt & IDD situation worldwide.

• Preparatory work for pilot salt iodization production in Kampot suspended pending review of findings of series of international consultants.

• Technical assistance & collaboration with UNICEF consultants on salt iodization production & salt sector study, including research on salt sector in Rattanikiri Province with PSI.

• Input to PSI's IDD KAP survey design.

• Initiated assessing potential of working with small salt refiners in Phnom Penh area.

• Completed situation assessment of salt refiners in Kampot, Phnom Penh & Takeo with a view to possible project activity revisions.

'97

Presentation to IDD sub-committee on recent developments within salt production industry in Kampot

Collection of additional information on salt boilers and finalization of English and Khmer versions of report on salt boilers

E. TRAINING HEALTH WORKERS

'95

• Ongoing training of 12 doctors in eye surgery in Phnom Penh & Takeo (initiated in August '95)

• Primary Eye Care (PEC) Screening in Prek Pra Sept. 15-16. 533 children received vit A, 233 adults examined, & 74 people provided with spectacles.

• Integrated Nutrition Training by NMCHC/HKI in Kompong Chhnang Nov.13-16 & Kampot Dec.18-22. 30 MOH trainees in Kompong Chhnang funded by AusAid. 38 MOH trainees in Kampot/Kep funded by HKI. Included field practice in VAC
distributions, growth monitoring, nutrition education, antenatal care/birth spacing education & EPI.


1996

- Primary Eye Care (PEC) worker training for 38 district and commune health care workers in Koh Thom & Saang districts of Kandal Province.

- With involvement from newly trained PEC workers in Kandal, commenced 1st complete eye disease survey in Cambodia (Kandal Province).

- Assisted National MCH Center to train 30 health workers from Battambang in integrated nutrition.

- Integrated Nutrition Training for 48 persons from 4 provincial departments of Kompong Cham, 2/96.

- Assisted training 100 health workers from all 22 provinces in vitamin A at annual Cambodian EPI meeting, 1/96.

- On-the-job training of eye doctors for Phnom Penh, Takeo, Kandal & Svay Rieng by HKI ophthalmologist continued. Included Khmer doctors assisting to screen 200 people from 3 villages in Kandal in preparation for eye surgery camp by visiting ophthalmologists; also assisted in Takeo eye camp surgeries. HKI ophthalmologist conducted patient follow-up.

- Completed data collection for eye disease survey in Kandal Province.

- Continued training of eye doctors by HKI ophthalmologist

- HKI Eye Health Officer assisted Maryknoll eye surgery team with OR translations, treating patients from Takeo, Kandal, Kompong Speu, and other provinces.

- Completed training of eye doctors by HKI ophthalmologist.

- 15 EPI workers from Samrong District in Takeo were trained in vitamin A deficiency.

1997

- Conclusion of refresher training workshops for PEC workers in Takeo
- Initiation of eye screenings in Takeo schools
F. FOOD PRODUCTION

'95

- 1,740 family vegetable seed packs were distributed through local & international NGOs.
- 52 treadle pumps distributed through local & international NGOs. A new treadle pump order was made for 1996.
- Continued assistance to gardening and fish pond project at O Toch village in Kampot (ref. activities initiated under PACT grant).
- Continued testing in Prey Veng of the solar dryer constructed by Veterans International for HKI. The field test will be the basis for a food processing training given by COR Jan. 16-18 in Prey Veng.

'96

- Initiated translation into Khmer of UNICEF's publication on home gardening in the dry season
- Training & technical assistance visit to HKI/Bangladesh home gardening projects by Country Representative & Agriculture Officer.
- Drafting of food production component of baseline survey.
- Initial central nursery site plans drafted, including staffing. Ground preparation for central nursery initiated.
- Power water well drilling equipment ordered & received.
- Draft collaborative agreement with Takeo Dept. of Agriculture (DOA) prepared.
- HKI/UCC drilling team assessment carried out by independent expert drilling consultant in December.
- Set-up of Central Nursery site at Sla Ku initiated with multiple tillings. Well-drilling for installation of treadle pump successfully completed.

'97

Planning for initial training workshop for community workers

Final selection of community worker candidates - recruitment suspended pending outcome of Program Review
G. MONITORING & EVALUATION

'96

• Baseline survey instruments pretested twice & finalized.
• Survey supervisors trained. Data collectors recruited and trained.
• Survey conducted 8/96.
  Interpretation and write-up of data
• Draft revised quantified objectives and outputs (with indicators) prepared and discussed with USAID monitoring consultant.
• Preparation of 1997 workplan initiated.

H. MANAGEMENT/STAFF DEVELOPMENT

In '97, local training consultant recruited for in-house training of trainers in planning/skills/methodologies for training; Salt Project Manager, Communications Officer and Eye Health Care Officer participated.
APPENDIX B

PROPOSED REVISED HKI/CAMBODIA WORK PLAN
USAID/CAMBODIA MATERNAL & CHILD HEALTH STRATEGIC OBJECTIVE
ANNUAL WORK PLAN: PERIOD: 1997

Organization: HELEN KELLER INTERNATIONAL
Grant/CA Title: Multi-Benefit Food and Enterprise Development Model
Grant/CA No.: 42-0112-G-00-5515-00
Total Grant/Agreement Cost: $2,000,000
USAID: $1,500,000
Grantee/Agency: $500,000
Last Audit: N/A

GRANT/AGREEMENT GOAL:
The overall goal is to improve the survival, health, learning, productivity, and quality of life of the most vulnerable Cambodians through nutrition and eye care interventions.

I. Program Summary

<table>
<thead>
<tr>
<th>Objective</th>
<th>Activities</th>
<th>Quarter</th>
<th>Annual Indicator</th>
<th>Annual Target</th>
<th>Final Outcome Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>National capacity to distribute VAC is enhanced</td>
<td>Assist MOH to implement national vitamin A policy</td>
<td></td>
<td># reports</td>
<td>1</td>
<td>Increased coverage of VAC within the last 4-6 months among preschool children</td>
</tr>
<tr>
<td>Analysis: assess needs &amp; make recommendations for:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- national guidelines to expand safe VAC distribution</td>
<td>x x</td>
<td># quality of recommendations</td>
<td></td>
<td>Improved national delivery of VAC services to target groups</td>
<td></td>
</tr>
<tr>
<td>- educational &amp; promotional materials to enhance VAC distribution</td>
<td>x x</td>
<td># quality of recommendations</td>
<td></td>
<td>- additional guidelines meet international standards</td>
<td></td>
</tr>
<tr>
<td>Pilot: provincial-level distribution of VAC 2-3x/year</td>
<td># pilot tests</td>
<td>1</td>
<td>Increased frequency of VAC distribution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- assess district-level VAC distribution</td>
<td>x</td>
<td># reports</td>
<td># provinces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- design pilot test of provincial-level VAC distribution with MOH</td>
<td>x</td>
<td># provinces</td>
<td># provinces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- assist MOH to implement provincial-level VAC distribution</td>
<td>x</td>
<td># % of children who receive VAC</td>
<td>% of children who receive VAC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- evaluate feasibility &amp; needs for expansion to additional provinces</td>
<td>x</td>
<td># reports</td>
<td># reports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draft: guidelines to expand 2-3x/year VAC distribution to additional provinces</td>
<td># reports</td>
<td>1</td>
<td>Expansion of more frequent VAC delivery nationwide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- provincial planners</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- VAC distributors</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation: assist MOH to distribute VAC on NID</td>
<td>x</td>
<td>% of children who receive VAC on NID</td>
<td>≥ 80%</td>
<td>Sustain delivery of VAC to preschool children on NID</td>
<td></td>
</tr>
</tbody>
</table>
## Program Summary

### Objective

| PVOs have increased capacity to increase consumption of vitamin A-rich foods |

### Activities

| Assist PVOs to improve consumption of vitamin A-rich foods via gardening programs |

#### Analysis: current PVO practices

- Identify gaps in PVO capacity to enhance consumption of vitamin A-rich foods in gardening projects
- Select PVO partners who are motivated to enhance consumption of vitamin A-rich foods & reach numerous potential beneficiaries

#### Analysis: of existing materials

- Review surveys of production & consumption of vitamin A-rich foods by season (e.g. HKI & ADRA)
- Produce an inventory of existing materials on gardening in Cambodia

#### Technical assistance provided:

- Establish year-round mixed vegetable nursery as demonstration site
- Develop case study(ies) on components of PVO gardening projects that enhance consumption of vitamin A-rich foods (e.g. ADRA)
- Hold workshop for PVOs to design activities to increase consumption of vitamin A-rich foods & identify specific needs for technical assistance
- Adapt/develop gardening materials based on PVO needs
- Provide follow-up technical assistance to PVOs in specific areas

### Quarter

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
</table>

### Annual Indicator

- Number of PVOs contacted
- Number of reports on needs
- Number of PVOs selected
- Number of summary reports on practices
- Number of demo gardens
- Number of case studies
- Number of PVO action plans
- Number of requests for specific technical assistance
- Number of draft materials
- Percent of requests for TA fulfilled

### Annual Target

- ≥10
- ≥1
- ≥3
- 1
- 1
- 1
- ≥3
- ≥6
- 1-2
- 100%

### Final Outcome Indicator

- PVOs improve consumption of vitamin A-rich foods by beneficiaries in their project areas
- PVOs: request assistance in identified areas of need
- PVOs: are motivated to implement year-round production of a variety of vegetables
- PVOs: use inventory list to identify appropriate materials
- ≥3 PVOs adopt ≥ 3 of following
- year-round production of ≥ 6 varieties of vegetables
- monitoring production & consumption of vegetables, consumption, & seasonality in the project areas
- sustainable high quality seeds & sapling production
- central & village nurseries
- nutrition education for vulnerable family members
## I. Program Summary (continued)

<table>
<thead>
<tr>
<th>Objective</th>
<th>Activities</th>
<th>Quarter</th>
<th>Annual Indicator</th>
<th>Annual Target</th>
<th>Final Outcome Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective materials to improve consumption of micronutrient-rich foods developed for GOs &amp; PVOs</td>
<td>Assist GOs &amp; PVOs to improve nutrition education about micronutrient-rich foods with effective materials</td>
<td>1 2 3 4</td>
<td>Annual</td>
<td>Target</td>
<td>GOs &amp; PVOs improve consumption of micronutrient-rich foods by beneficiaries in their project areas</td>
</tr>
<tr>
<td>Analysis: current consumption practices</td>
<td>• review surveys of consumption of specific vitamin A-rich foods (including colostrum) by season (e.g. HKI &amp; ADRA)</td>
<td>x x</td>
<td># reports on current practices &amp; implications for behavior changes</td>
<td>2-3</td>
<td>An effective communications strategy is developed with appropriate materials for the various target audiences in order to improve consumption of:</td>
</tr>
<tr>
<td></td>
<td>• analyze existing information (from HKI qualitative research) on cultural beliefs about consumption of vitamin A-rich foods by preschool children</td>
<td>x x</td>
<td># reports on suggested behavior changes</td>
<td>1</td>
<td>• vitamin A-rich foods by preschool children</td>
</tr>
<tr>
<td></td>
<td>• collect existing &amp; new information on cultural beliefs about consumption of vitamin A-rich foods by pregnant women</td>
<td>x x x</td>
<td># reports on recommendations for behavior change</td>
<td>1</td>
<td>• vitamin A-rich foods by pregnant women</td>
</tr>
<tr>
<td></td>
<td>• collect existing &amp; new information on cultural beliefs about introduction of colostrum within 4 hours after delivery</td>
<td></td>
<td></td>
<td></td>
<td>• colostrum by infant</td>
</tr>
<tr>
<td></td>
<td>• produce an inventory of existing nutrition education materials &amp; media messages in Cambodia with evaluation of content for vitamin A-rich foods &amp; colostrum</td>
<td>x x x</td>
<td># inventories</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Materials &amp; media pilot tested:</td>
<td>• develop &amp; test materials on vitamin A-rich foods for children (posters, jingles)</td>
<td>x x x</td>
<td># of draft materials</td>
<td>2</td>
<td>Materials are developed for</td>
</tr>
<tr>
<td></td>
<td>• draft communications strategy for educational materials on vitamin A-rich foods for pregnant women</td>
<td></td>
<td># draft reports</td>
<td>1</td>
<td>• target audiences in communities</td>
</tr>
<tr>
<td></td>
<td>• incorporate consumption of vitamin A-rich foods by target groups in draft gardening materials</td>
<td>x x x</td>
<td>consumption incorporated in gardening materials</td>
<td>1</td>
<td>• PVO senior staff that implement gardening projects</td>
</tr>
<tr>
<td></td>
<td>• design flip charts for community workers for vitamin A-rich foods for preschool children &amp; pregnant women, &amp; for colostrum for infants</td>
<td>x x</td>
<td># draft materials developed</td>
<td>1</td>
<td>• PVO project beneficiaries</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• community workers</td>
</tr>
<tr>
<td>Objective</td>
<td>Activities</td>
<td>Activity Details</td>
<td>Quarter</td>
<td>Annual Indicator</td>
<td>Annual Target</td>
</tr>
<tr>
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</tr>
<tr>
<td>Improve national capacity to develop, implement &amp; monitor iodine interventions</td>
<td>Assist GOs &amp; private sector to develop, implement &amp; monitor iodine interventions</td>
<td>Analysis: • review studies conducted by UNICEF, PSI, ACIF &amp; the implications for HKI iodization machines • review results of UNICEF goiter survey for recommendations on targeting iodized oil capsules in the NorthEast</td>
<td>1 2 3 4</td>
<td>x x</td>
<td>• decision made about the best use of HKI machines</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pilot Test: • develop implementation plan for pilot testing salt iodization with salt boilers, including monitoring iodine content &amp; packaging at the production level • select salt boiler(s) &amp; set-up salt iodization machine &amp; quality assurance procedures</td>
<td>x x</td>
<td>• implementation plans</td>
<td>• 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Draft: • policy on short-term interventions for NorthEast territories developed based on results from UNICEF goiter survey &amp; ACIF/UNICEF strategy for well dispensers • policy on monitoring iodine content from household to production level</td>
<td>x x</td>
<td>• of reports on HKI recommendations</td>
<td>• 1</td>
</tr>
</tbody>
</table>

Iodine interventions pilot tested & national 5-year plan established

MOH considers recommendations for iodization
I. Program Summary (continued)

<table>
<thead>
<tr>
<th>Objective</th>
<th>Activities</th>
<th>Quarterly</th>
<th>Annual Indicator</th>
<th>Annual Target</th>
<th>Final Outcome Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve capacity to provide eye care services</td>
<td>Assist health service providers to provide eye care services as part of primary health care</td>
<td></td>
<td># strategic plans</td>
<td>1</td>
<td>National strategy for primary eye care pilot tested in Takeo</td>
</tr>
<tr>
<td>Pilot Test: eye care services in Takeo (&amp; Siem Reap)</td>
<td>• finalize primary eye care strategy &amp; guidelines with HKI-Philippines ophthalmologist &amp; HKI-Training &amp; Community Development Director</td>
<td>x</td>
<td># training curricula</td>
<td>1</td>
<td>• an effective eye care strategy &amp; training plan are implemented</td>
</tr>
<tr>
<td></td>
<td>• develop training curricula including Khmer translation of HKI Primary Eye Care Manual for trainers, health care providers &amp; community workers</td>
<td>x x x</td>
<td># curricula developed</td>
<td>3</td>
<td>• training curricula are adapted for health service providers &amp; community volunteers in Cambodia</td>
</tr>
<tr>
<td></td>
<td>• adapt, develop &amp; reprint materials for eye care training, workers &amp; community education</td>
<td>x x x</td>
<td># materials drafted</td>
<td>3</td>
<td>• materials disseminated to appropriate target groups</td>
</tr>
<tr>
<td></td>
<td>• refresher training for primary health care workers in simple eye care &amp; referral</td>
<td>x x</td>
<td># workers trained</td>
<td>30</td>
<td>• health service providers provide high quality primary eye care services</td>
</tr>
<tr>
<td></td>
<td>• train trainers of primary eye care workers</td>
<td>x x</td>
<td># trainers trained</td>
<td>8</td>
<td>• health service providers provide high quality primary eye care services</td>
</tr>
<tr>
<td></td>
<td>Draft: national eye care strategy</td>
<td>x</td>
<td># reports on national strategy</td>
<td>1</td>
<td>• national plan for expansion of eye care services stimulated</td>
</tr>
</tbody>
</table>
## PVO: Helen Keller International, Inc.

### Cooperative Agreement No.: 442-0112-G-00-5515-00

#### Combined Headquarters & Field Analysis

<table>
<thead>
<tr>
<th>Personnel</th>
<th>Total Agreement Budget</th>
<th>Actual Expenses to Date</th>
<th>Remaining Obligated Funds</th>
<th>Revised Budget for 6-Month No-Cost Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headquarters</td>
<td>110,767</td>
<td>46,522</td>
<td>64,245</td>
<td>83,438</td>
</tr>
<tr>
<td>Field-Technical &amp; Other</td>
<td>322,355</td>
<td>101,515</td>
<td>220,840</td>
<td>256,648</td>
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<tr>
<td>Allowances</td>
<td>87,783</td>
<td>20,728</td>
<td>67,055</td>
<td>45,844</td>
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<tr>
<td>Fringe Benefits-Headquarters</td>
<td>27,692</td>
<td>11,631</td>
<td>16,061</td>
<td>20,859</td>
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<tr>
<td>Fringe Benefits-Field</td>
<td>80,589</td>
<td>21,334</td>
<td>59,255</td>
<td>64,662</td>
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<tr>
<td><strong>SUBTOTAL</strong></td>
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<td><strong>201,730</strong></td>
<td><strong>427,456</strong></td>
<td><strong>473,451</strong></td>
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<tr>
<td>Consultancies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eyecare</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1,200</td>
</tr>
<tr>
<td>Nutrition</td>
<td>0</td>
<td>300</td>
<td>(300)</td>
<td>25,200</td>
</tr>
<tr>
<td>Evaluation</td>
<td>16,207</td>
<td>12,518</td>
<td>3,689</td>
<td>25,200</td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td><strong>16,207</strong></td>
<td><strong>12,818</strong></td>
<td><strong>3,389</strong></td>
<td><strong>51,600</strong></td>
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<tr>
<td>Travel, Transportation, &amp; Per Diem</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International</td>
<td>19,816</td>
<td>5,539</td>
<td>14,277</td>
<td>18,100</td>
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<tr>
<td>Local</td>
<td>68,837</td>
<td>21,210</td>
<td>42,627</td>
<td>35,543</td>
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<tr>
<td><strong>SUBTOTAL</strong></td>
<td><strong>83,653</strong></td>
<td><strong>26,749</strong></td>
<td><strong>56,904</strong></td>
<td><strong>53,643</strong></td>
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<tr>
<td>Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicles</td>
<td>32,680</td>
<td>31,691</td>
<td>989</td>
<td>0</td>
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<tr>
<td>Computers &amp; Printers</td>
<td>6,000</td>
<td>4,759</td>
<td>1,241</td>
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</tr>
<tr>
<td>Salt Mixing Machine</td>
<td>12,000</td>
<td>3,487</td>
<td>8,513</td>
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<tr>
<td><strong>SUBTOTAL</strong></td>
<td><strong>50,680</strong></td>
<td><strong>39,937</strong></td>
<td><strong>10,743</strong></td>
<td><strong>8,000</strong></td>
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<tr>
<td>Other Direct Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td>102,450</td>
<td>8,767</td>
<td>93,683</td>
<td>44,675</td>
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<tr>
<td>Evaluation</td>
<td>27,884</td>
<td>2,374</td>
<td>25,510</td>
<td>10,000</td>
</tr>
<tr>
<td>Promotion</td>
<td>17,339</td>
<td>7,658</td>
<td>9,681</td>
<td>57,000</td>
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<tr>
<td>Supplies</td>
<td>131,436</td>
<td>12,362</td>
<td>119,074</td>
<td>29,054</td>
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<tr>
<td>Communications-Headquarters</td>
<td>15,307</td>
<td>6,429</td>
<td>8,878</td>
<td>11,705</td>
</tr>
<tr>
<td>Communications-Field</td>
<td>19,915</td>
<td>13,412</td>
<td>5,503</td>
<td>26,000</td>
</tr>
<tr>
<td>Other-Headquarters</td>
<td>21,433</td>
<td>9,002</td>
<td>12,431</td>
<td>29,400</td>
</tr>
<tr>
<td>Other-Field</td>
<td>67,118</td>
<td>19,843</td>
<td>47,275</td>
<td>26,000</td>
</tr>
<tr>
<td><strong>SUBTOTAL</strong></td>
<td><strong>401,882</strong></td>
<td><strong>79,847</strong></td>
<td><strong>322,035</strong></td>
<td><strong>231,834</strong></td>
</tr>
<tr>
<td><strong>TOTAL DIRECT COSTS</strong></td>
<td><strong>1,181,608</strong></td>
<td><strong>361,080</strong></td>
<td><strong>820,527</strong></td>
<td><strong>820,527</strong></td>
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<tr>
<td><strong>TOTAL INDIRECT COSTS</strong></td>
<td><strong>322,579</strong></td>
<td><strong>98,575</strong></td>
<td><strong>224,004</strong></td>
<td><strong>224,004</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL, DIRECT &amp; INDIRECT COSTS</strong></td>
<td><strong>1,504,186</strong></td>
<td><strong>459,655</strong></td>
<td><strong>1,044,531</strong></td>
<td><strong>1,044,530</strong></td>
</tr>
</tbody>
</table>
APPENDIX C

PROPOSED REVISED BUDGET AND BUDGET JUSTIFICATION
Justification for Budget Revision

The total grant agreement with USAID is currently for 36 months, ending on August 31, 1998. As of December 31, 1996, 44% of the life of the grant had elapsed. Expenditure accruals to December 31, 1996 show that Helen Keller International has expended 30% of the USAID total budget agreement and 45% of the total requirement for matching funds. Given the delays in the implementation of project activities that resulted in a 14% underexpenditure for the USAID portion of the agreement, Helen Keller International requests a 6-month no-cost extension.

Personnel

Headquarters personnel

The total monthly expenditures on headquarters personnel will be maintained at the same levels throughout the additional 6-month interval including annual cost of living increases of 5% cost. Fringe benefits are calculated at 25% of base salary. The current level of effort for headquarters personnel and expenditures as of January 1, 1997 were as follows:

<table>
<thead>
<tr>
<th>Positions</th>
<th>Annual Level of Effort &amp; Salaries</th>
<th>USAID</th>
<th>HKI</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technical:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrition Director</td>
<td>15%</td>
<td>5%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Training Director</td>
<td>15%</td>
<td>0%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Eye Care Director</td>
<td>5%</td>
<td>5%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Medical Director</td>
<td>0%</td>
<td>5%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal Salary</strong></td>
<td></td>
<td>$25,000</td>
<td>$10,750</td>
<td></td>
</tr>
<tr>
<td><strong>Administrative Support:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nutrition Admin</td>
<td>15%</td>
<td>5%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Training Admin</td>
<td>15%</td>
<td>0%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Eye Care Admin</td>
<td>10%</td>
<td>0%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Grants Manager</td>
<td>0%</td>
<td>5%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td><strong>Subtotal Salary</strong></td>
<td></td>
<td>$12,500</td>
<td>$7,500</td>
<td></td>
</tr>
<tr>
<td><strong>Total Headquarters Salary</strong></td>
<td></td>
<td>$37,500</td>
<td>$18,250</td>
<td></td>
</tr>
<tr>
<td><strong>Total Headquarters Fringe</strong></td>
<td></td>
<td>$9,375</td>
<td>$4,563</td>
<td></td>
</tr>
</tbody>
</table>

Field personnel

Helen Keller International has recruited a new Country Director and Community Development Officer. Hence salary levels have changed slightly. As a result of the Program Review, it was suggested that additional field personnel be hired. First, the Program Review Team noted the need for additional nutrition expertise within the project as well as in Cambodia. Recruitment of a qualified nutritionist within Cambodia seems unlikely. Hence, a nutritionist (MS level or PhD) with a strong communications background will be hired for the period of 12 months in order to accelerate the development of IEC materials, to foster sound implementation of micronutrient interventions with collaborating partners, and to strengthen the capacity of
HKI Project staff in nutrition & communications. Given the high degree of training and experience required, it is estimated that recruitment for a one year position will be in the range of $50,000.

An additional Communications & Training Officer will be hired for the life of the project to assist in the development of IEC materials and in training of trainers. Finally, given the high volume of translation between Khmer and English, a translator will be hired.

<table>
<thead>
<tr>
<th>Permanent Field Positions</th>
<th>Annual Level of Effort &amp; Salaries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>USAID</td>
</tr>
<tr>
<td>Technical Senior Staff:</td>
<td></td>
</tr>
<tr>
<td>Country Representative</td>
<td>80%</td>
</tr>
<tr>
<td>Community Development Officer</td>
<td>80%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$52,800</strong></td>
</tr>
<tr>
<td>Technical Program Staff:</td>
<td></td>
</tr>
<tr>
<td>Salt Project Manager @ $275/mo</td>
<td>100%</td>
</tr>
<tr>
<td>Agricultural Officer @ $225/mo</td>
<td>100%</td>
</tr>
<tr>
<td>Communications Officer @ $275/mo</td>
<td>100%</td>
</tr>
<tr>
<td>Com./Training Officer @$275/mo*</td>
<td>100%</td>
</tr>
<tr>
<td>Takeo Eye Health Officer @ $250/mo</td>
<td>100%</td>
</tr>
<tr>
<td>Takeo Health Ed Officer @ $175/mo</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$17,700</strong></td>
</tr>
<tr>
<td>Administrative:</td>
<td></td>
</tr>
<tr>
<td>Finance Administrator @ $500/mo</td>
<td>100%</td>
</tr>
<tr>
<td>Admin Assistant @ $250/mo</td>
<td>100%</td>
</tr>
<tr>
<td>Translator @ $250/mo*</td>
<td>100%</td>
</tr>
<tr>
<td>2 Drivers @ $150/mo each</td>
<td>100%</td>
</tr>
<tr>
<td>Cleaner Phnom Penh @ $85/mo</td>
<td>100%</td>
</tr>
<tr>
<td>2 Guards Phnom Penh @ $100/mo each</td>
<td>100%</td>
</tr>
<tr>
<td>Cleaner Takeo @ $50/mo</td>
<td>100%</td>
</tr>
<tr>
<td>3 Guards Takeo @ $70/mo</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$22,320</strong></td>
</tr>
<tr>
<td><strong>Total Headquarters Salary</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Total Headquarters Fringe</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Not yet hired as of April 13, 1997. Salaries for these 2 positions will cover 22 months until the end of the grant.

All field personnel receive fringe benefits at approximately 25% of base salary levels. Additional allowances have been provided for the Country Representative, Community Development Officer, and Nutrition Communications Advisor. The allowances for the Country Representative include housing & utilities ($500/mo), R&R ($600/year), return air fare and shipping ($4000) at the end of project. Allowances for the Community Development Officer include housing & utilities ($300/mo), R&R ($600/year), return air
fare and shipping ($4000) at the end of project. Allowances for the Nutrition Communications Advisor include housing & utilities ($500/mo), round trip air fare and shipping ($4000*2).

Consultancies
The Program Review Team also identified the need for additional short-term expertise in iodization and monitoring & evaluation. A consultant will be hired for 20 days to work with the Salt Project Manager to develop a one-year work plan for pilot testing the small-scale salt iodization machines with one to two salt boilers. This consultant will return in year two to work with the Salt Project Manager to write a feasibility report on the potential for expansion of salt boilers. The expenses for the consultant for 20 days of work are estimated at $12,000 per trip for consultancy fees, round-trip international air fare, lodging and per diem in Phnom Penh.

The Program Review Team recommended three options to be considered for monitoring and evaluation: (i) hiring consultants within the region to respond to technical assistance needs, (ii) developing in-house capacity to respond to technical assistance needs, or (iii) hiring local consulting firms. The latter was considered the least desirable option, since Helen Keller International's experience with local consulting firms is that the amount of time for analysis is too lengthy to be of use for program planning and training to develop local capacity of other organizations is limited. Since Helen Keller International does not currently have a monitoring and evaluation position, consultants will need to be hired at least initially to assist with assessment of consumption and production practices. Therefore, the budget includes expenses for 4 trips of 10 days of work each at $6000 per trip for consultancy fees round-trip air fare, lodging, and per diem in Phnom Penh.

A consultant was hired in the first quarter of 1997 to train HKI field staff in training of trainers techniques at a cost of $3600 (distributed equally between eye care, nutrition, and evaluation).

Travel
International
Helen Keller International has budgeted for 3 trips for headquarters staff for the remainder of the project. The Nutrition Director has undertaken one of these trips for the program review. Trips are budgeted at $4900 each for round-trip air fare from New York to Cambodia and food and lodging for 14 days. The Training and Community Development Director will visit the project in May to develop educational activities for Eye Care and Nutrition. The Nutrition Director will visit the project in the last year of the grant. Any additional trips will be covered by matching funds.

Helen Keller International has also budgeted for the Community Development Officer and the Agricultural Officer to travel to Bangladesh where the Helen Keller vitamin A gardening model has demonstrated decreases in maternal night blindness & has been expanded to over 250,000 families. The trips have been budgeted at $1000 for air fare and $50/day for 14 days for food and lodging.
Local
Local travel is based on current expenditure rates. The current average expenditure on per diem for local travel is $150/mo. The current average expenditure on fuel and vehicle maintenance is $100/mo. The current average expenditure on vehicle insurance is $3000 per year. Annual increases of 5% are projected for inflation.

Equipment
Due to staff increases, Helen Keller International will need to purchase 2 additional computers @ $3000 each, a desk jet printer ($500), a fax machine ($500), and a copy machine ($1000). Helen Keller International will not purchase additional iodization machines, due to the strong interest in UNICEF in procuring salt iodization machines.

Other Direct Costs
Training
Two gardening workshops will be for 20 participants from partner PVOs interested in gardening in years 1 and 2. The costs will be for 20 participants at $15/day for 5 days for each workshop. The purpose of the first workshop is to develop a nutrition gardening plan that includes a plan to improve year round availability of a variety of vegetables, quality seed production, demonstration gardens, nutrition education, & monitoring production and consumption. A demonstration garden will be set up in the workshop site at $10,000 for materials, supplies, labor and maintenance. The second workshop is to review progress and identify areas for further technical assistance.

To provide ongoing technical assistance to the PVOs throughout the year, 6 workshops will be held for individual PVOs for specific gardening technical assistance at $2,000 per workshop.

Training for eye care for the remainder of the grant includes: 8 trainers of eye care workers for 15 days at $15/day in year 2; 40 health care workers in eye care for 5 days at $15/day in year 2 and another 40 health care workers in year 2; 100 community workers in eye care promotion for 5 days at $15/day in year 2; and 25 teachers for 5 days at $15/day.

Training for nutrition communications will be conducted for 25 promoters (to be identified) for 5 days at $15/day in a series of four additional workshops.

Evaluation
Two additional production and consumption surveys are planned at $2000 per survey. Three additional qualitative surveys are planned for developing nutrition communications materials at $2000 per survey for consumption of vitamin A-rich foods by pregnant women and for consumption of colostrum by infants. Costs for these production/consumption surveys in the baseline evaluation were considerably less than anticipated.
Promotion

The nutrition promotion materials originally proposed such as cartoon booklets and vitamin A stickers create awareness, but are not effective in changing behavior. These materials were listed in the section on "advocacy" in the original budget justification. Given the need for well-designed educational and promotional materials that will promote behavior change, and Helen Keller International will produce more extensive educational materials than previous planned. Two sources are available to increase the production of such materials. UNICEF has indicated its willingness to provide funding for nutrition education materials produced by Helen Keller International, particularly in the area of vitamin A-rich foods. Due to the decrease in the supplies for promotion of iodization of salt) and treadle pumps for the promotion of gardens additional money is available for educational materials (see discussion below). The materials developed could be cost-shared with materials proposed for this USAID-funded project.

The following materials are proposed:
- eye care curricula & training materials $17,000 (development and printing)
- promotion of vitamin A-rich foods for children (such as flip charts, posters & jingles (year 2): $10,000 for development and printing
- promotion of vitamin A-rich foods for pregnant women through gardens: (year 3): $10,000 for development and printing or broadcasting
- promotion of colostrum for infants: (year 3) $10,000 for development and printing or broadcasting
- promotion of gardening, curricula and materials for PVOs (years 2 and 3): $10,000.

Given the delay in large-scale implementation of salt iodization, it is highly unlikely that the supply of iodized salt will be adequate to promote consumption at the household level by year 3 of the grant. The Program Review team feels that it would be more appropriate to develop a full-scale proposal for promotion of iodized salt with adequate funding after UNICEF implements the pilot salt iodization in Kompot for one year.

Supplies

The Program Review team felt that the incentives for salt packaging, raw salt and distribution of salt were in conflict with sustainability, particularly considering that salt iodization will be carried out through the salt sector. UNICEF will provide the salt iodate needed to test iodization with one to two salt boilers for the feasibility test suggested by the Program Review team. A small amount of money has been budgeted as an incentive to carry out a one-year salt-boiler feasibility study. This is included in promotion above.

The Program Review team recommendations to shift to technical assistance to PVOs for the gardening component of the grant, have eliminated the need for supplies in the Takeo area. Only the costs of setting up the demonstration site for PVO workshop have been retained and appear in the training component of this budget. Helen Keller International already has sufficient treadle pumps that could be used as an incentive for PVOs. Since the whole purpose is to set up a sustainable gardening system, seeds and saplings will not be provided free to PVOs and their project participants. Instead PVOs will be encouraged
to adopt approaches to promote the production of seeds and saplings in village gardens as an income generating activity. The Program Review Team felt that solar dryers were an inappropriate activity at the present stage of development of vitamin A gardening in Cambodia so these supplies have also been eliminated.

The current expenditures on general office supplies such as stationary, photocopies, computer diskettes, etc. average $750/month. A 5% annual increase for inflation is included for the remainder of the grant for general office supplies. In addition, the expansion in program staff necessitate the purchase of additional office furniture (estimated at $2000 for desks chairs and bookshelves) and a $750 for an additional mobile phone as specified in the original proposal. As specified in the original proposal, 150 eye glasses will be purchased. The costs of these glasses in Cambodia are estimated at $8/pair. As specified in the original proposal an additional 50 eye care kits will be purchased as $100/kit.

Communications
**Headquarters:** expenditures will continue at the same rate of expenditure as originally proposed. An additional 6 month extension period is included with a 5% increase to account for inflation.

**Field:** expenditures have been averaging much higher than originally proposed due to the difficulty in establishing reliable electronic mail. The current budget reflects the actual rate of expenditure of $1000/month for an additional 26 months.

Other
**Headquarters:** expenditures including the proportional occupancy, utilities, maintenance contracts and other costs will continue at the same rate of expenditure as originally proposed. An additional 6 month extension period is included with a 5% increase to account for inflation.

**Field:** expenditures including occupancy and utilities for the offices in Phnom Penh and Takeo, and maintenance contracts have been averaging somewhat lower than originally proposed at $1000/month. Therefore, the current budget reflects the actual rate of expenditure of $1000/month for an additional 26 months.

**Indirect Costs**
Remain at 27.24% as in the NICRA presented in the proposal.