

**CAM 008 IUCN-ORMA: Rural Community
Management of Wild Species in Central
America**

Midterm Review

Per Wegge

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Preface

The following midterm review took place during December 1-14, 1996. A two-man team, professor Per Wegge and Mr. David Smith (a Panama national), made short visits to the field project sites in Cosiguina (Nicaragua) and Isla Canas, Aguas Claras and Cabuya (Panama) together, which was followed up by a 2-day visit to El Jacotal (El Salvador) by the national team member (Mr. Smith). Discussions were held with the community organizations in Cosiguina, Isla Canas and El Jacotal, with the national project implementers in all three countries, and with the IUCN coordinator and consultants at HQ in San Jose. A short meeting with Norad took place in Managua towards the end of the field visits. Because of time constraints, only superficial information was collected on the two paca projects in Panama (Cabuya and Aguas Claras), and no meetings were held with these targeted communities, unfortunately.

Information generated through the interviews and discussions were collected and written down by the counterpart team member and interpreter Mr. Smith. Following the departure of the team leader to Norway, it was agreed by Norad that Mr Smith visit the remaining project site in El Salvador. The agreement was that subsequently he should forward all relevant information, including a preliminary summary and recommendations worked out together, to the team leader in Norway. Unfortunately, this information was not received before the report was nearly finished and the team leader was scheduled to travel overseas. Subsequent technical problems of communication delayed the final reporting further. Following a review of the draft report by the IUCN Regional Office in Costa Rica (ORMA), the draft was finally revised and completed in late April 1997.

The IUCN/ORMA coordinator had prepared the field visits and meetings effectively. Hence, in spite of the short time allocated for the review, the team feels that it gained adequate insight into the status of the project on which to make assessments and recommendations. As team leader I would like to thank IUCN/ORMA for the expediency and forthcoming manner which the review was organized.

Ås, Norway
April 1997


Per Wegge

Executive Summary

A mid-term review of Cam 008 "Wildlife Program in Central America" was made during visits to Costa Rica, Nicaragua, Panama and El Salvador in early December 1996.

Main findings were:

1. IUCN/ORMA is doing a satisfactory job in implementing this rather difficult interdisciplinary and innovative programme aimed at rural development through sustainable use of wildlife resources. It should be appreciated that installing such a programme is by no means an easy task as it requires a holistic approach with input from many sectoral disciplines.
2. The programme consists of three main components - capacity building, training and extension; policy and legislation formulation; and field demonstration projects.
3. Through a number of seminars, workshops and exchange visits, capacity building has progressed well, both at the rural community level and among field technical staff. Information material has been produced and disseminated. Main achievement in extension has been in fostering a conservation awareness among the target groups; the potential of wildlife utilization for rural development has been less less focused. Mobilization and networking with national experts have been less active than during the first phase of CAM 008.
4. Major achievements have been reached in formulating and lobbying for appropriate legislation and regulations for wildlife utilization in the region. During 1995 and 1996 the project effectively assisted in drafting new legislation for Costa Rica and Nicaragua. Similarly, the project has provided input for provisions in the new legislation in Panama which are currently being reviewed by the government (INRENARE). A major review of existing wildlife legislation in C.A. was completed as an initial diagnosis to orient the legislative instruments more towards the sustainable use concept.
5. Within the constraints of lower budgetary allocations to each field project than recommended by an earlier programme review, progress has also been satisfactory in most of the ongoing demonstration projects - a main component of the present programme. Main achievements have been in developing and consolidating community organizations, building conservation and opportunity awareness and strengthening social cohesion among community members. Development of biological monitoring skills and technical know-how has also improved. A main shortcoming in most field projects is the lack of economic considerations. The status of individual demonstration projects are assessed as follows:

6. Marine turtles, Isla Canas, Panama: Well developed community organization and local administrative capability. Strong women participation. Biological and technical basis improved. Lack of market studies and cost-benefit analyses. Currently the best field project with good potential for tangible community benefits (cash or in kind).
7. Green iguana breeding, Cabuya, Panama: Poorly developed community organization. Unsatisfactory biological and technical performance. No economic assessment. Lack of appropriate application procedures regarding recently approved law for marketing green iguana is main disincentive for project progress.
8. Paca breeding, Aguas Claras, Panama: Technical performance improved, but still inadequate for wider, community introduction. Community organization also apparently not yet sufficiently developed, in spite of the establishment of a national paca breeding association. A study and assessment of the economic viability of paca breeding nearly completed.
9. Iguana breeding, Cosiguina, Nicaragua: In spite of set-back due to heavy flooding, project well progressed with strong community support. Well developed community organization with strong women participation. Technical basis needs some improvement. Inappropriate local implementing institution (UNAN). Only project with economic assessment: a market study of black iguana completed. A project believed to have good potential with better implementing institution and closer monitoring.
10. Harvesting of duck eggs, El Jacotal Lagoon, El Salvador: Interinstitutional implementation which functions well. Communities well organized, including gender. Project activities diversifying to include other wildlife resources and general conservation concerns. No rigorous economic analyses of potential local benefits of wildlife resources.
11. IUCNs role: Serving the role of technical back-stopping well. Has recruited well qualified and dedicated staff to deal with social and judicial issues related to the needs of the region. Main shortcoming is slowness in addressing the economic aspects of the rural development component of the programme, both in general and in the individual demonstration projects. IUCN acknowledges the need to put this aspect in a priority stage and has taken steps towards this by hiring an economist as consultant for field projects.

Summary of MAJOR FINDINGS - Social Dimension of Project:

1. MAIN CHALLENGE PRESENT AMONG ALL PROJECTS: to transform people from traditional hunters and harvesters into natural resource managers trained in conservation and sustainable entrepreneurship.
2. Projects with major advances are those that have developed significant community organizations resulting from project implementation (Isla Canas, Cosiguina, El Jocotal). This guarantees community take over and adequate potential for project sustainability after external financial and technical cooperation ends. Relevant community organization and involvement is still lacking in ANCON pacca and Cabuya iguana projects.
3. Isla Canas, Cosiguina and El Jocotal have developed significant community take over of projects. Community growth surpasses external institution's initial coordination and project governance. This originates new challenges and tensions, mainly for external institutions regarding their official or ad hoc mandates, timetables, conventional routines, ways and means of project coordination, decision making and guidelines.
4. Isla Canas, Cosiguina and El Jocotal projects have developed the insight, the will and community-based capacity to work with and influence neighboring communities in favor of these communities' involvement and support of project activities and overall goals (i.e. wildlife and economic sustainability through adequate management and sharing of new technical, legal and scientific knowledge and responsibilities). These efforts will require IUCN's strategic planning, technical support and monitoring of local organizations engaging in these activities. Possible strategic framework: Which communities are to be engaged and why, way in which these communities affect the project, what segment of population (community leaders, business entrepreneurs, local government agencies, school, wildlife park wardens, etc), planned actions and timetable, responsible agents, expected results, costs.
5. The conservation dimension of projects has been strengthened in all communities. Guaranteed economic (market value) and social benefits are in process with different levels of advancement: Isla Canas and El Jocotal are well underway. Cosiguina is still in an initial stage, lacking more precise external support and advisory guidance. ANCON pacca and Caguya Iguana projects are still the least market oriented at this stage.
6. Consolidation of actual projects requires overcoming the initial focalization of community and specific wild life species (i.e. only ducks, only turtles and their eggs, only pacca, or only green and black iguanas) as ongoing

projects are generating growing demands to engage in management of particular collateral wildlife species, besides networking with neighboring communities and local government institutions in support of sustainable project goals beyond project duration and external financial support. Increasing strategic alliances and actions can and should be made regarding sustainable wildlife management provided they do transform into an overall rural development projects and disrupt the original project objectives.

7. Familiarity, documentation and use of reliable and measurable indicators; study and follow up of marketing experiences, besides increased sharing of findings among different projects and members (i.e. success, growth in knowledge and community organization, alongside clear identification of persisting needs, unresolved bottlenecks and limitations) is required. Prevailing discourse among on the field institution/NGO technicians and grass-root members seems to unfold some sort of cultural bias which magnifies conceptualization of project experience disregarding the use of precise data.
8. All projects require technical advisory support regarding systematic documentation and analysis of project data and activities, enabling proper community increase in knowledge, management experience and possibilities of future takeover. Reliable and measurable indicators need to be developed and actively used by projects. Grassroot community organizations and majority of institutions and organizations coordinating or supporting projects are not familiar with project management dynamics regarding economic entrepreneurship and rentability of sustainable wildlife management. This issue needs to be precisely addressed and promoted.
9. Explicit relations between sustainable management of wildlife and improvement of social conditions or quality of life must be increasingly established by those engaged in projects or affected by them. This will include:
 - * new knowledge regarding chosen wildlife species, their environmental requirements, reproductive dynamics, habits and demands for sustainable management;
 - * increased awareness regarding conservation, project management and sustainability,
 - * successful efforts guaranteeing stability of species populations or their increases,
 - * measurable improvement of community quality of life, education and training, health, income generating activities, diversification of productive activities and diet,
 - * improved social/community organization and leadership,
 - * growing community empowerment and takeover of project,
 - * increasing business entrepreneurship, including feasibility studies and healthy marketing,
 - * gender equity awareness and explicit practices,
 - * Civil Society and Government institutions networking as strategic alliances and mutual support in respect to

sustainable wildlife management, legislation and applicability.

10. In most counterparts (most NGOs, Isla Canas peasant, some members of Cosiguina project, Board of Directors of Jocotal Community Association), a "Job and Salary cultural pattern" seems to prevail, with individuals expecting to be paid for whatever work they engage in, disregarding external funding and project activities.
11. Although with different levels of intensity, overall need to understand and influence national wildlife legislations is present in all countries.

Recommendations:

The review team recommends slight changes in emphasis during the remainder of the project, including within-budget re-allocations:

1. Capacity building, training and extension should continue along the same lines as before, but at a lesser intensity and capital expenditure. If possible within total project funding level, national expert groups should be revitalized and mobilized to provide technical advice on demonstration projects and for assisting in the general process of policy formulation.
2. Policy formulation and legislation need continued attention by the project. The fruitful cooperation with INRENARE should be nurtured, and closer linkage and support to ANCON related to these issues seem strategically advisable in order to achieve further progress in Panama.
3. The demonstration projects need some more drastic changes. As a general recommendation, all should maintain their focus on sustainable use of the wildlife resources for tangible local community benefits. The current integrated approach to management should be maintained and pursued, but care should be exercised so they do not expand into non-related rural development activities:
 - a) In Panama, the green iguana project at Cabuya should either be closed down or maintained at a very low, cost-effective level.
 - b) The turtle project at Isla Canas (Panama) should be given highest priority with the aim of reaching near self-sustainability at the end of 1998. Main input should be directed at developing economic sustainability through assistance in marketing. Biological monitoring techniques of the resource should be refined further. In a longer term perspective, re-establishment of old, abandoned nesting grounds in adjacent communities and beaches should be attempted. The potential of ecotourism should be explored, but carefully and in full and intimate cooperation with the local community organization. A minimum of USD 20.000/y should be allocated to the Isla Canas project during the remaining period.
 - c) The paca project in Panama should receive continued support through ANCON, but limited to developing technology adapted to poor, local communities. The initiative to transfer technology to Nicaragua (Sia Paz) through FUNDEVERDE should be pursued, if necessary with an increased budgetary re-allocation. Although inconsistent with the general recommendation of not spreading programme activities, support to FUNDEVERDE may prove to be fruitful, as the project has few, if any, good local partner organizations in Nicaragua at present.
 - d) In Nicaragua, the iguana project in Cosiguina needs re-organization and aggressive assistance, without delay. UNAN must be replaced by another local, implementing institution. Main emphasis should be on assisting in maximizing economic revenues from the green iguana breeding program. The appropriateness of continued captive breeding

of black iguanas should be assessed and negotiated with the Omar Baca Cooperative. Other priority activities are establishing similar breeding programmes in neighboring communities (which will effectively reduce poaching), and better technical assistance. Transfer of relevant (community "grass-root" level) technology from the Dagmar Werner project should be considered. Annual allocation should be increased from USD 20.000 to 25.000 for the remaining period.

- e) In El Salvador, the now expanding multi-species project needs a more programmatic focus. Notwithstanding the commendable efforts by the well organized inter-institutional "team", it is vital that this demonstration project does not expand into non-related rural development activities and become involved in all conservation issues facing the lagoon. Main emphasis should be directed at bridging inequities between El Borbollon and La Curruncha communities, assisting in developing an economic basis from the duck eggs (cost-benefit and market study), and generating more precise information on the duck population and its ecological requirement and harvest potential. Attention to other wildlife-based activities (honey, fish and ecotourism) or conservation issues (land tenure and pollution) should only expand if clearly compatible with the primary objectives of strengthening community organizations and developing sustainable harvesting programmes of the wildlife resources. Collaboration with the government institution (CENREN) should be developed further. If at all possible within the total budget, the annual budget should be raised to USD 25.000/y to this project.
4. IUCN/ORMA is coordinating the regional programme effectively and much success has already been achieved. The review teams acknowledges the constraints within which IUCN has to operate, but recommends that the organization installs a closer monitoring role of the demonstration projects with identifiable, measurable indicators of individual project progress. In its regional programmatic approach, priority should be directed at policy and lobbying until proper legislation is in place. Headquarters should be free to choose national partner and implementing institutions which are not necessarily members of the organization.
 5. To monitor quality control, Norad should have bi-annual meetings with project coordinator and technical staff with visits to ongoing demonstration projects in the participating countries.
 6. The present "Wildlife Program" should not be merged with the proposed "Wetland Program" as their objectives and institutional structures are too different. However, the demonstration projects in El Jacotal (El Salvador) and Isla Canas (Panama) may be included as demonstration projects in the Wetland Program. Furthermore, the valuable experience of community-based management gained in the Wildlife Program should be utilized in the planning and implementation of the Wetland Program, as the latter proposal appears to be insufficiently focused on local involvement.

1. Background

The CAM 008 Regional Wildlife Program in Central America was initiated with Norad funding in 1992. The first phase was reviewed in November 1994. The current project started in 1995 with a total funding of appr. NOK 5.6 mill. over a four year period. Norad is the main donor. During 1995-96 the Wildlife Program received an additional USD 60.000 from other sources. The consultancy report of November 12, 1994, contains general background information and recommendations for the second phase.

The proposal submitted by IUCN for this second phase follows the recommendations given in the consultancy report. According to written and verbal information from Norad, it was understood that the current project is based on approval of the proposal, with only minor revisions in budget allocations. However, the formulations in the Summary of Project Document and the Terms of Reference deviate somewhat from IUCN's original proposal. In line with the consultants' recommendations, the latter puts more emphasis on achieving sustainability of the demonstration projects, whereas the Summary of Project Document and TOR also highlight legal matters and international trade pertaining to wild animals and their products. Because IUCN informed the team that it has implemented the project according to its approved proposal, the team chose to review the current project according to the original proposal. Hence, the TOR were not adhered to explicitly during this review. IUCN admitted that there were deviations in relative emphasis of subcomponents between their original proposal and the wording in the final Project Agreement, which it should have pointed out and clarified.

2. Project Objectives and Priorities

The overall objectives of the CAM-008 project, as stated by the Mesoamerican Regional Office (ORMA) of IUCN, are as follows:

1. To promote the sustainable use of wild resources for the improvement of the quality of life of rural communities in the Central American Region.
2. To advise C.A. governments and non-governmental groups in their wildlife management activities from the technical, administrative, legal and intergovernmental point of view.
3. To implement demonstration projects in the area of sustainable use of wild resources in Central America.

The strategy adopted by IUCN to achieve these goals is stated as follows:

- Capacity building and extension services covering general wildlife management needs in the region (i.e. information

sharing, networking with national specialists, newsletters seminars, workshops).

- Demonstration projects focusing on management of particular species, or groups of species (i.e. integrated approach that includes requisite management, scientific and trade controls).
- Policy formulating and decision making: the promotion of a judicial framework in the region that will permit and promote sustainable use of wildlife and community participation.

The 1994 programme review concluded and recommended as follows:

"During the remaining phase of the CAM-008 IUCN/ORMA project activities should focus on socio-economic aspects, particularly community organization and market analyses. Project emphasis should shift away from conservation-orientation towards economic development of local communities. Priority should be given to successfully complete one or more demonstration projects. This means that other objectives stated in the original project document need to be scaled down." The review explicitly cautioned against spreading and diluting funding on too many activities and recommended that a minimum of 25.000-30.000 USD should be allocated per year for each of the retained demonstration projects in order to ensure self-sustainability when the projects terminate.

The proposal submitted and approved by Norad followed the 1994 recommendations. However, only the Uaxactun project in Guatemala was scaled down (to one year only) and the retained projects were each allocated USD 20.000/year (ANCON/Panama only USD 15.000/year). The other programme components were maintained as before. Hence, there is an inconsistency between what the proposal says and how the budget was actually allocated.

3. Capacity Building, Training and Extension

The project has continued its efforts to educate the general public and decision makers to build conservation awareness and introducing the concept of sustainable use of wildlife resources. To this end newsletters and an information booklet about the ongoing field projects have been prepared and disseminated. A video production of the same projects have also been made. The text of the Biodiversity Convention in Rio has been translated for popular use.

A number of seminars and training workshops have been organized. Four regional meetings with all technical staff have been held, and 4 community board members of the Cosiguina iguana project visited the field projects in Panama. Reciprocal visits between technical staff of FUNDEVERDE (Nicaragua) and ANCON (Panama) are planned for this year as a preparation for developing a paca breeding programme in Siapaz. IUCN/ORMA headquarters in San Jose is well updated on professional matters through its extensive international network and transmits relevant information to the technical project teams.

The review team was impressed with the extension/training component of the project. Video production and spots, which do not pretend to be a documentation of demonstration projects, are used as education materials at the grass-root level of IUCN dissemination and training efforts. However, it appeared as if the the regional group of experts was not as active as in the earlier part of CAM 008. The purpose of this group was to provide expert advice to the overall programme, including the field projects. The reason for less involvement of regional experts could be that this is costly for the project, as well-trained manpower in Central America do little for free, even for short-time services within the general field of rural development.

4. Policy, Legislation and Decision Making

The project has effectively lobbied for and assisted in formulating improved legislation within the region. A major undertaking has been a review of the state of wildlife legislation in all all countries, Belize included. Following two workshops, a 50 page report has been prepared and distributed to all governments and relevant political groups.

In Central America, previous regulations pertaining to wildlife have mainly been concerned with law enforcement and arms specifications related to hunting. Following the Rio Convention, more emphasis has been directed at biodiversity preservation. In June 1995, all presidents in C.A. signed "The Central American Alliance for Sustainable Development". This political document addresses a number of objectives which highlight poverty alleviation, social and economic indicators, and biodiversity conservation, including 1) establishment of transnational biological corridors, 2) preparation of a regional list of endangered species, and 3) establishment of botanical gardens and biodiversity centres.

On the national level, new laws attempt to merge more traditional principles of wildlife management with biodiversity conservation and to include community participation and property rights. Following requests of the Environmental Congress Commissions in Costa Rica (1996) and Nicaragua (1995), the Wildlife Program has supported processes leading to the drafting of new legislation. For Costa Rica, there is now a draft law under hearing, and Nicaragua has just finished a judicial diagnosis concerning biodiversity regulations.

In Panama, IUCN/ORMA was requested by INRENARE (government) to assist in the preparation of new legislation. The new law was enacted in 1995. For field implementation, appropriate provisions are needed. The project has assisted in formulating such provisions. These are now completed and currently being reviewed by INRENARE. Final official approval of the new provisions are urgently needed in Panama in order to obtain a proper legal basis for captive breeding programs of paca and green iguanas. The harvesting of turtle eggs at Isla Canas (one of the demonstration projects) is operating under an exemption from the current legislation in Panama, thanks to the good working relationship that has been established with INRENARE.

To conclude, the project has been quite active and successful in influencing the new legislations that are now being put in place throughout the region. Legal advice related to international trade has been secured from the Environmental Law Center in Bonn. Sustainable use of wildlife by local communities will soon have adequate legal provisions. Panama is lagging behind, but when the new provisions are formally approved, also this country will have an appropriate legal basis for embarking on wildlife utilization programmes.

5. IUCNs Role

IUCN/ORMA is effectively coordinating this programme from its headquarters in San Jose. In terms of its regional programmatic approach, IUCN is selectively addressing the key needs in a well-balanced manner. Proper legislation for sustainable use of wildlife on the community level is urgently needed, and much progress has been achieved in this component of the project. Informing the public at large, NGOs and decision makers of the potential of wildlife is another important part of this process. Because laws and regulations are still not optimal (e.g. Panama and El Salvador), high priority should be given to policy issues also in the next few years.

With the recent reorganizational structure and closure of national IUCN offices, success of the regional wildlife programme is highly dependent on working through good partnerships in each country, partners with a well-perceived understanding of the role that utilization of wildlife can play in the rural development context. Because sustainable use - as opposed to preservation - is a new approach in wildlife conservation, such institutions are not easy to find. Most

"green" organizations tend to have a top-down approach to local communities, which can often be directly counter-productive to the long-term objective of conservation. It is therefore necessary for IUCN to actively search for - or help develop - partner institutions that can fill the needed role of local implementation. National institutions outside the membership of IUCN may have to be selected if the programme so requires.

6. Norad's Role and the proposed Wetland Program

Norad has introduced annual meetings with project staff in order to monitor project progress and clarify administrative matters. This is a very appropriate way of exercising quality control and should continue, preferably with two meetings per year. One of the annual meetings should include visits to demonstration projects.

With respect to the question of linking or coordinating the present Wildlife Programm with the proposed Wetland Program, the team recommends that they are not merged. Their programmatic approach, overall objectives and institutional organizations are too different. However, because both the marine turtle project (Isla Canas, Panama) and the expanding multi-species project in El Jacotal lagoon (El Salvador) fall within the same general objective of sustainable use of resources, these two field projects may be coordinated with the proposed Wetland Program in the future.

The Wetland Program is only weakly linked to local community development, and the crucial prerequisite of organizing, mobilizing and empowering local communities is not well addressed in that proposal. Because the Wildlife Program has gained valuable experience and progress in these respects when implementing field projects, the new Wetland Program should take advantage of this and utilize the acquired knowledge and competence in a collaborative mode of operation.

7. Field Projects

A main part of the CAM-008 Wildlife Program consists of field projects. The purpose of these is to demonstrate the viability of utilizing wildlife for local community development. Besides generating income, sustainable use of wildlife also contributes to conserve endangered species by reducing uncontrolled poaching. Other indirect benefits are increased social cohesion and better community organization, and raised level of conservation awareness among community members. A number of requirements need to be fulfilled in order for such projects to be considered truly successful: they have to be ecologically sustainable, i.e. harvesting should not have negative effects on the populations or the natural environment; they have to be economically sustainable, i.e. management should produce a net income or other tangible benefits and thereby provide for improved standard of living; and they have to be socially sustainable, i.e. they should operate within the cultural and social value system of the communities, with equitable sharing of responsibilities and revenues. In this particular CAM 008 project, mobilization and empowerment of women are a specified objective.

In order to reach such sustainabilities, several functions need to be developed such as infrastructure, technical skills, survey and monitoring of resources, community organization, managerial and book-keeping capability, production and harvesting methods, more detailed marketing know how, and environmental awareness. A prerequisite is also that adequate legal provisions are in place. Such criteria may be used as indicators to assess level of performance of the different field projects.

7.1. General Assessment

The table below summarizes the status of each field project according to such indicators. Included are also qualitative appraisals of supporting factors like degree of community involvement, NGO/GO participation, and legal conditions.

The five ongoing field projects have achieved different levels of progress towards sustainability. As seen from the table, they all suffer from lack of economic analyses and market studies. Only in Cosiquina has a study of local markets been made. However, this study dealt with the black iguana, which at present has far less potential than the green iguana species. Although variable among projects, the main positive achievement so far is the high level of conservation awareness that they have generated and their positive impact on community organization.

It is a pity that cost-benefit analyses have not yet been made. This was the main shortcoming indentified during the review in 1994. The project has successfully hired consultants to address legal and social aspects of the programme, but the vital economic part is still absent. The ecological basis and biological know-how for sustainable harvesting is also not yet

Table 1. Assessment of the five field demonstration projects implemented under the CAM 008 Regional Wildlife Programme.

| Activity/Project | P A N A M A | | | EL SALV. | NICARAGUA |
|--|-------------------|---------------------|-------------------|-----------------------|-----------------------------|
| | Isla Canas T.eggs | Cabuya Green iguana | Aguas Claras Paca | Jacotal Lagoon D.eggs | Cosiguina Green/bl. iguanas |
| Potential community benefits | 4 | 3 | 3-4 | 4 | 4 |
| Legal basis | 4 | 2 | 2 | 4 | 4 |
| Community organization | 5 + | 2 o | 2 o | 4 + | 4 + |
| Government support | 4 o | 1 o | 2 o | 4 + | 3 + |
| NGO/GO participation | 4 + | 2 o | 3 o | 3 + | 2 o |
| Biological and technical basis | 3 + | 2 o | 2 o | 2 o | 3 o |
| Cost-benefit analysis | 1 o | 1 o | 1 o | 1 o | 1 o |
| Market study | 1 o | 1 o | 1 o | 1 o | 1 o |
| Community participation | 5 + | 3 o | 2 o | 4 + | 4 + |
| Gender | 4 + | ? | ? | 4 + | 4 + |
| Conservation awareness | 5 + | ? | ? | 4 + | 4 + |
| Conservation benefits | 4 + | 3 + | ? | 4 + | 4 + |
| Economic sustainability | 3 + | 2 o | 1 o | 2 o | 2 + |
| Ecologic.sustainability | 4 + | nr | nr | ? | 4 + |
| IUCN coordination | 2 + | 1 - | 2 o | 3 o | 2 - |
| * Probability of self-sustainability in 1998 (at current rate of progress and funding) | 3 | 1 | 1 | 2 | 2 |

1 = poor, 5 = excellent, nr = not relevant

+, -, o = compared to 1994

* 1 = poor, 3 = high

adequate. Only in the turtle project at Isla Canas has a regular monitoring of the resource base been installed. The breeding of iguanas (Coisiguina and Cabuya) has not benefitted from the wealth of information gathered through the CAM-023 project (Dagmar Werner project). The present project can not be blamed for this. Lack of access to this information may partly explain why the technical aspects of iguana breeding and production are not yet perfected. However, by using mainly locally available resources they have succeeded in keeping production costs down.

Paca is considered a threatened species in Central America, mainly or partly due to poaching. Traditionally, this species has been raised locally for meat production, first of all in Panama. The potential for community-based production of meat from this species appears to be high, provided production cost can be kept relatively low. ANCON has developed the technical know-how for such production, has organized a national association of breeders (60 at present), and an assessment of the economic viability of paca breeding is nearly completed. At present, problems of domestication and breeding in captivity coupled with relatively high investments in suitable enclosures may prevent this from becoming a viable economic option on the local community level within the the next few years. IUCN has not monitored this project closely enough to steer it in a direction for local community application. The potential is still there, but much more emphasis must be given to develop technical solutions which are sustainable within the constraints of poor, local communities. Preparations are now being made to transfer the breeding technology to FUNDEVERDE, a new NGO in Nicaragua, to start community breeding of paca in Sia Paz. This positive initiative by ANCON is commendable and should be encouraged, but the technology should be adapted to the local conditions.

The field projects have all succeeded in raising local conservation awareness - indeed a commendable achievement. Also, most - if not all - projects have been quite successful in mobilizing the target communities, which again has led to improved community organizations. In fact, communities at Cosiguina and Isla Canas have become aware of opportunities which they did not perceive before. They are now anxious to move ahead with development activities not directly related to the use of the wildlife resources. At the same time, it seemed clear that their wildlife-based management programmes were not economically sustainable. Hence, there is a tendency for the projects to be too conservation oriented, without due concern for socio-economic aspects. Indeed, one may argue that the project at Isla Canas, for instance, has become a classical conservation project undertaken and paid for by the local villagers. Although people are given permission to harvest and market a certain number of turtle eggs (which they have always done), they now do all the protection and monitoring of the resource, feed the local police (!) and even raise and release young from artificial nests, with little or no compensation from the government (INRENARE). INRENARE has provided training and instructions of how to do the field work, but the expenses and labour costs are borne by the community.

The situation in Cosiguina is similar: Except for the training and provision of some construction material for the enclosures, all costs of maintenance, feeding and production are borne by the community. Of course, this is commensurate with the overall purpose of transferring management responsibility to the community. However, on top of this, the community releases 30 percent of their captive bred animals back to the natural forest for conservation purposes. This way they forego substantial revenues from marketing the same animals. Neither UNAN nor IUCN has provided needed advice on this, presumably because both institutions tend to see the project as primarily to serve conservation interests. The fact that the community is proud of doing so, and that it raises social cohesion and conservation awareness, does not justify lack of guidance by the project leadership, particularly when the project, by all possible indicators, is far from economically viable at present.

The progress in community organizations in Cosiguina and Isla Canas, and presumably also in El Jacotal, has created some unforeseen problems: The communities have now gained self-consciousness and empowerment to the extent that they want to diversify into other rural development activities. Villagers are impatient and critical to the initial benefactors, blaming them for not providing more direct and indirect assistance for expanding activities. In a longer term perspective expansion and diversification should be encouraged. However, with the dubious status of the ongoing projects with respect to overall sustainability, priority should be given to strengthening and developing the wildlife-based projects instead of expanding into rural development programmes.

IUCN is the coordinating institution. It does not implement the field projects on the ground. This creates some difficulties. IUCN is dependent on transferring the implementing role to a national governmental or non-governmental institution, ideally to a member of the organization. Progress is dependent on the capability of the partner organization chosen. Some of the problems of the field projects can be explained by this mode of operation: In Cosiguina, UNAN was given the responsibility of implementing the iguana project of the Omar Bacca Cooperative. In spite of directives that major emphasis should be given to socio-economic aspects, as recommended by the 1994 review, UNAN has mainly focused on conservation matters, including censusing the wild population of black iguanas in the natural forest reserve. Its administrative role, including handling of funds, has also been unsatisfactory. Being basically an academic institution with its related agenda, UNAN does not perceive its role as implementor of a wildlife-based rural development programme in which peoples' aspirations are the focal point. Extract from a statement by the UNAN project director exemplifies this: "There is now a legal basis for live capture of green iguanas by private companies for export. So the project is not sustainable. The Cooperative only supplies animals for the export market for others". The point is that UNAN encourages the Cooperative to release 30 percent of the

animals produced by the Cooperative back to the forest, instead of pursuing the opportunity that the Cooperative now has for generating income by direct sales to companies. Hence, UNANs involvement in the project is directly counter-productive.

With respect to the paca breeding project in Aguas Claras which is seconded to ANCON, IUCN faces a different kind of problem: ANCON is a large NGO with substantial funding from the private sector and environmental organizations in Panama. Its overall objective is nature conservation. The support from IUCN for the paca breeding programme is small, compared to the total funding base of ANCON. This makes it difficult for IUCN to put pressure on ANCON to adapt the technology to the rural, poor farmers or to work at the grass-root level with organizing rural communities.

In Panama, IUCN works closely with the relevant government institution INRENARE. The working relationship is quite good, and substantial progress has been achieved with respect to modifications of the wildlife laws, conservation awareness, training and extension. However, when it comes to the field projects, INRENARE must implement the activities within the framework of current legislation and resource constraints of its institution. Although remarkable progress has been obtained in the turtle project at Isla Canas (with the conceptual critique commented on earlier), INRENARE has not been able to implement the green iguana breeding project at Cabuya according to expectations. With no national IUCN representative in Panama and IUCN HQ in San Jose, it is understandable that IUCN has limited capacity to interfere and rectify problems that occur in any of the field projects.

Another source of limitation is access to qualified consultants. The 1994 review emphasized the need to conduct market studies and cost-benefit analyses in order to ensure economic sustainability of the wildlife utilization initiatives at the local community level. The project has successfully hired suitable consultants to deal with social and legal issues, but the economic aspects have still not been addressed properly. The reason for this is simply that specialists with the appropriate training and perceptions are not readily available. A traditionally trained economist is not what is needed for the type of resource economics that this project deals with. IUCN is well aware of this and is making a concerted effort to recruit an appropriate person for this very important task.

7.2. Individual Field Demonstration Projects

Below follow short comments on each of the demonstration projects. More background information is available in the 1994 project review document, and further details on current status may be obtained directly from the national review team member (Mr. D. Smith).

Iguana breeding in Cosiguina, Nicaragua

Objective: Breed green and black iguanas in captivity for food

for the local community of Omar Bacca and for marketing.
 Indirect objective: reduce illegal harvesting of iguana in the wild and help rebuild iguana populations in the forest.

Budget: USD 20.000/y in 1995-1998.

Project organization: UNAN (University of Leon) is responsible for project implementation. MARENA (government) participates, through UNAN, on social issues. UNAN hired a full-time technician to be daily in charge of field operations.

Accomplishments: Former cooperative board for iguana breeding dissolved and replaced by a new board with strong women participation. Revolving fund established. Former breeding enclosures closed and replaced by two new ones. New project brick house built. Production capacity increased slightly from previous enclosures, but no technical improvement since 1994. Marketing started on small scale. Exemption from CITES regulations specifies that 5 percent of juvenile production be released back to the natural forest; the project releases 30 percent. Black iguana population censused in 1994 and in 1996 disclosed a declining trend. A market study of black iguana conducted by a student from CATIE showed that a diversified market exists, but that production cost far too high to make captive production of this species viable. Instead, a high market price for juvenile greens indicate that this may be an economically viable option. Construction material of new enclosures (tin sheets) claimed to be inadequate, as snakes get in and kill adults.

Assessment and recommendations: A recent heavy and devastating flood has seriously constrained project progress in this very poor community. When UNAN was requested to help to rehabilitate the flood-damaged enclosures, little or no assistance was provided. In spite of several set-backs, enthusiasm is high and the community is well organized to develop the project further. Main obstacle is UNAN, the local implementing institution, due to its inappropriate approach and poor administrative capability. A new implementing institution needs to be put in charge without delay. Main focus should be to improve production capacity, assist aggressively with developing markets and revenues from juvenile greens, and organize adjacent communities in similar breeding programmes in order to combat poaching. Continuity of black iguana breeding should be negotiated with the community. The project has definitely the potential for generating incomes for rural development.

Paca breeding in Aguas Claras, Panama

Project Objective: Domesticate and raise paca in captivity for food and commercialization. Technology transfer to local communities. Indirect objective: reduction of hunting pressure on wild populations.

Budget: USD 15.000/y in 1995-1998

Project organization: ANON, a large professional NGO, is in charge of experimental breeding programme and community organization.

Accomplishments: Progress in perfecting breeding performance and reducing initial cost of enclosures has been slow. Although a national association of breeders with 60 members has been formed, little if any progress has been made in organizing communities for local production. Besides experimental breeding and establishing the association, lobbying for adequate wildlife legislation has been a major activity of ANCON, but with little assistance of the project.

Assessment and recommendations: Present momentum in the paca program appears to be related to sale of live animals: poor production of young in captivity hampers further progress. Project may also be more conservation oriented in its approach, rather than genuinely concerned with assisting rural communities. In spite of slow progress, domestic production of paca appears to have good potential as a means for poor, rural communities to produce food for subsistence and for generating income. Because technology is still not perfected and adapted to the resource constraints of local communities, the project should continue on an experimental basis before wider introduction in local communities. Lack of proper legal basis also prevents establishment of paca production out in the communities. IUCN should monitor the project more closely, with emphasis on developing locally-based, cheap production systems. Support to ANCON should be maintained with this focus; the project's community component by ANCON may be terminated. Instead, IUCN should consider selecting another target community in Nicaragua in conjunction with the upstart of a paca breeding programme in Siapaz, with FUNDEVERDE as the local, implementing NGO. IUCN should also assist ANCON in lobbying for more appropriate national legislation.

Green iguana breeding in Cabyua, Panama

Project objectives: Breed and raise green iguana in captivity for food and for restocking in natural forests.

Budget: Part of USD 20.000/y allocated to INRENARE

Project organization: INRENARE (government) is in charge of implementation

Accomplishments: Little progress since 1994. Only 3 families have stocked breeding enclosures (1 in 1994), but other households have built enclosures and are prepared for starting up. Losses during incubation is still high. No consolidated community organization yet established. Main contribution of present project is restocking captive-bred young iguanas to the natural forest. The forest is highly degraded, but is now being rehabilitated through INRENARE's general conservation efforts in the area.

Assessment and recommendations: Main reason for slow progress is lack of proper legislation. In Panama, juvenile green

iguanas cannot enter the pet trade, and market for meat is limited. Also, shortage of manpower in INRENARE and the remoteness of Cabyua have both acted as disincentives. The present project is now a pure conservation programme, without a community development linkage. It is recommended that the Cabyua project is terminated (or only maintained at minimum cost), and that INRENARE allocates the main proportion of the USD 20.000 to the field project at Isla Canas.

Harvesting of marine turtle eggs at Isla Canas, Panama

Project objective: controlled harvest and utilization of marine turtle eggs for the dual purpose of conservation and local community benefits

Budget: Part of USD 20.000/y allocated to INRENARE

Project organization: INRENARE in charge of project implementation

Accomplishments: Remarkable progress since 1994 and at present the most advanced demonstration project. An 80 member "United Islanders Cooperative" (half of the local community) formed, with strong women representation. Conservation and management techniques, including systematic censusing of number of nesting turtles, developed from training by project technical staff. Since mid-1995, USD 10.000 generated from sale of eggs and reinvested in community infrastructural needs. Positive demonstration effects on neighboring communities which practiced poaching after depleting their own stocks: they now seek advice on how to set up similar community organizations. Some 50.000 turtles (4 species of which the green turtle makes up for >90 percent) nest on a 2.5 km beach stretch and produce an estimated minimum of 5.000.000 eggs of which appr. 350.000, or less than 10 percent, are harvested per year. An artificial incubation enclosure has been established and guarded to reduce mortality during incubation and hatchling dispersal to the sea. Material and labour cost of this and nearly all censusing work are borne by the community. Project appears to be ecologically sustainable with the added conservation benefit of providing protection for rarer species. However, considering the high cost of management, it is not yet economically sustainable in the strictest sense.

Recommendations: A cost-benefit analysis and a market study need to be conducted for the purpose of increasing revenues. Extension services to neighboring communities should be pursued, including feasibility of establishing new breeding colonies at abandoned beaches nearby. The potential of ecotourism should also be explored in close cooperation with the Cooperative. The Cooperative is anxious to expand into agricultural development programmes and wants more support for this from the project. Although tempting and under pressure from the community, the the project should not divert its attention into such activities at this stage. However, it should share technical advice and support the community in networking with Government and the private sector by taking advantage of its newly acquired cooperative status, thereby

gaining access to available funds for complementary agricultural activities. Main project support should be channelled towards maximizing the economic returns from the harvesting programme of eggs. Work is also needed on developing more refined resource inventory techniques, and a research study on how to reduce hatchling mortality should be contracted out, possibly to the Smithsonian Institution.

Harvesting of duck eggs in El Jacotal Lagoon, El Salvador

Project objectives: Initially aimed at sustainable harvesting of eggs from whistling ducks. Later expanded into integrated rural development and conservation/utilization of other natural resources.

Budget: USD 20.000/y in 1995-1998

Project organization: Implemented by an interinstitutional network consisting of the Maquilishualt Foundation, the Natural History Museum, the Ministry of Education (Dept of Parks and Environment), supported by other NGOs. IUCN employs a former IUCN national staff member to coordinate all activities in the project.

Accomplishments: Since the 1994 review, communities have become well organized, with balanced gender participation. Conservation awareness is also high. Collaboration and support from the government (CENREN) have also improved, resulting in a better balance between preservation and utilization interests. Workshops on nest box and bee hive construction have been held, and 40 new nest boxes and 12 honey bee hives have been built on private land. 30 community leaders have been trained in duck management. 15 boatmen and fishermen have been trained in environmental education and interpretation as a basis for guiding in ecotourism. Quantity of duck eggs harvested for local consumption/marketing is still low: out of an estimated population of roughly 1250 ducks, only some 1400 eggs were harvested/y, distributed almost equally between El Borbollon and La Curruncha communities. Because the two communities have quite different means of subsistence, their needs are not equally addressed by the project, causing some resentment. The El Jacotal Community Development Association (JCDA) has received training and legal advice support from the project, but appeared insensitive to the needs of the fishing community (El Borbollon). Only superficial inventories of the biological resources have been made.

Recommendations: The project has succeeded in building community organizations which have become well aware of income-generating opportunities and conservation issues that need to be addressed. Social and conservation matters are well attended to by the participating project institutions and good linkages to decision makers and the government institution locally responsible for management have been established. However, the project may risk to divert into dispersed rural development activities and overall multiple conservation. It is imperative that the IUCN/ORMA programme coordinator and the

implementing institutions immediately review the objective of this demonstration project to decide on its future direction. The project should retain its focus on the original objective of demonstrating that sustainable harvesting of wildlife resources is an ecologically and economically viable option for the local communities. In addition to duck eggs, sustainable harvesting of fish resources and development of ecotourism may be included in the program. Expanding into a wider multi-species management and conservation approach may seem tempting and desirable in the context of the many issues currently facing the Lagoon, but this should not be pursued unless budgetary allocations are adequate to ensure tangible results in terms of local community benefits. Hence, economic assessments of wildlife options are urgently needed in this project. Proper censusing and assessment of ecological harvesting potential, and development of systematic monitoring techniques must also be done. Ideally, the annual allocation to this project should be raised to USD 25.000/y.

SUMMARY OF RECOMMENDATIONS FOR THE REMAINING PERIOD

1997: Priorities (measurable and objective indicators)

1998 --- 1999

Focus on achievement of tangible results/benefits for communities

Prevailing Conditions

| | | | |
|---|--|---|---|
| <ul style="list-style-type: none"> • <u>Isla Caña</u> Develop more detailed Marketing facts. | <ul style="list-style-type: none"> • Gender awareness can be improved. • Precise goals to be achieved during 97, should be established. • Consolidate cooperative and its access to other financial sources, and initiate complementary rural development and social servicing. • Focus 100% on sustainability. • Promote similar coops and activit in neighboring communities to avoid poaching/ depredation. • Promote ecotourism plan and political support against foreign interest. | <ul style="list-style-type: none"> • <u>Isla Cañas</u> Consolidate Marketing facts. | <ul style="list-style-type: none"> • Strength cooperativ/network and potential agricult. activities as complementary actions towards guaranteeing sustainability. • Improved community quality/life through developmt of infrastruct. • Satisfactory growth of community organization, awerence and capacity • Good and relevant support from INRENARE. • Gender situation well addressed • Explore further interest, potential and capacity for ecotourism. |
| <ul style="list-style-type: none"> • <u>Cosiglin</u> Marketing and revolving fund. | <ul style="list-style-type: none"> • Increase of Project budget and calendar extension recommended • Need for immediate emergency attention and technical support to community is required. • Reorganize technical assistance. Change immediate source. • Focuss on green iguanas plus complementary rural developmet activities in behalf of sustainab. • Strengthen economic and social improvement goal. • Promote simmil coops and activ. in neighboring communities to avoid poaching/ depredation. • Negotiate continuity of breeding and release of black iguanas with community (respond to tradition). | <ul style="list-style-type: none"> • <u>Take/advantag</u> of community operational potential | <ul style="list-style-type: none"> • High level of poverty. Community is aware of lack of other opportunities. • Satisfactory growth of community organization, awarenes, capacity and commitment to project. • Academic bias of current supervisory entity, limits potential for success. • Lack of immediate and precise alternatives may jeopardize overall conservation objectives and sustainable wildlife management purposes, unless technical change takes place. • Gender situation well addressed |
| <ul style="list-style-type: none"> • <u>Jocotal</u> Prioritize and Focus. | <ul style="list-style-type: none"> • Biolog. assessment of sustainable harvesting levels of wildlife resources, data gathering and develop social/economic indexes regarding: ducks, fishes, honey bee-keeping, environment control as means for decision making and setting of priorities (to be done with communitis active participat) • Address economic and social benefits from admin. wildlife resources for communities. • Address both community's specific integration into the project, and expand awareness creation to neighbor. communities to avoid poaching/ depredation. | <ul style="list-style-type: none"> • <u>Jocotal</u> Consolidate Prioritized Focus. | <ul style="list-style-type: none"> • Interesting interinstitutional set up, appropriate and coordinated holistic approach. • Potential risk of dilution of efforts and project results must be avoided. • Both communities are not equally addressed by the project. Extent of communities involvement and benefits must be enforced. • Tension among existing community organizations needs to be addressed, guaranteeing strategic alliances among them in behalf of project. • Lagoon's vulnerability must be properly documented/ dealt with |

1997: Priorities (measurable and objective indicators)

1998 --- 1999

Focus on achievement of tangible results/benefits for communities

Prevailing Conditions

| | | | |
|---|---|--|--|
| <ul style="list-style-type: none"> • ANCON Paca. Reduce support | <ul style="list-style-type: none"> • Strengthen paca breeders association and consolidate with IUCN's support, lobbying in behalf of approval of sustainab. wildlife management legal operational framework. • Measure availability of another NGO's technic. support at grassroot level to strenghten community development. • Promote INRENARE's direct involvement as complement. • Fulfill previous project commitment regarding market study and appraisal of precise conomic viability for paca breeders • Consolidate support to FUNDEVERDE/ Nicaragua. | <ul style="list-style-type: none"> • Poor community involvement. NGO to share expertiz abroad | <ul style="list-style-type: none"> • Actual NGO's priority responds to political and legislative dimension. • Conservation awareness is satisfactory, lacking market and economic considerations and facts. • Community oriented actions and technical support regarding economic viability (costs of cage construction, disseminatn. of market values and information) is still in primary stage. • Lack of operationalization mechanisms in current legislation hampers sustainable utilization of wildlife. |
| <ul style="list-style-type: none"> • CABUYA Iguanas. Stand By situation | <ul style="list-style-type: none"> • Waiting (12 to 24 months) transition stage. • Consolidate as a community based project • Promote and develop market culture. • Guarantee monitoring • Negotiate/ explore low level market activities with INRENARE/IUCN 's support. • Lobby in behalf of approval of legislation's operational mechanisms. | <p>Prevailing Conditions</p> | <ul style="list-style-type: none"> • Conservation awareness is satisfactory but lacking market and economic considerations and facts • Community oriented actions and technical support regarding economic viability (cage construction, dissemination of market values and information is still in primary stage. • Current legislation hampers sustainable utilization of wildlife. |

Table 2. Recommended actions and budgets for the field demonstration projects in CAM 008 IUCN-ORMA: Rural community management of wild species in Central America

| Project | 1997 | 1998 | 1999 |
|----------------------------|--------------------|--------------------|--------------------|
| ANCON (paca) | decrease 10.000 | finalize 10.000 | |
| ANCON/FUNDEVERDE (paca) | initiate 10.000 | increase 15.000 | maintain 15.000 |
| Cabyua (iguana) | standby 5.000 | resume 15.000 | decrease 10.000 |
| Isla Canas (turtles) | increase 25.000 | decrease 20.000 | finalize 15.000 |
| Jocotal (multi-species) | maintain 25.000 | maintain 25.000 | finalize 15.000 |
| Cosiguina (iguana) | Increase 25.000 | maintain 25.000 | maintain 25.000 |

**TERMS OF REFERENCE
MID-TERM REVIEW OF CAM-008 IUCN / WILDLIFE PROGRAM**

1. BACKGROUND

NORAD and ^{IUCN} ~~CATIE~~ signed an agreement on November 28, 1995, (the "Agreement") about phase II of the project, comprising the 4-year period 1995-1998 and a grant of approximately 5,6 million NOK (approximately 870 thousand US\$).

The goal of the project, as stated in the Agreement and its Annex I, is to foment rural community management and sustainable use of wildlife in Central America

The purpose of the project is to achieve

- a civil society, rural population included, that influences on decision making about legislation and other regulations that promote a sustainable use of wildlife;
- that the Central American countries co-operate on prevention of illegal trade with animals and animal products;
- increased consciousness about sustainable use of wildlife as a more efficient protection strategy than total ban on hunting.

A study of the project was performed in 1994, and its conclusions and recommendations was used in the planning of the present phase II of the project.

The present review was agreed upon in the Agreement, Article VIII, stating that a review of the project shall be undertaken within the expiry of 1996, with the aim of facilitating the planning of the last two years of the project and the continuation of project activities after the termination of NORAD support.

The review was further discussed during the Annual Meeting between the two parties held in San Salvador on 22 April, 1996.

2. OBJECTIVE

The main objective of the review is to assess the development of the Project, according to its Goal and Purpose as described in the Agreement with Annexes, including an assessment of the indicators and expected results.

3. SCOPE OF WORK

The review should put special emphasis in social and rural development aspects.

While assessing the goal and purposes in the Agreement with Annexes, the team should focus on:

- effectiveness, i.e. measure the extent to which the Project has succeeded in achieving its goal and purposes;
- relevance, i.e. assess the degree to which the goal and purposes of the Project are or remain pertinent, significant and desirable;
- sustainability, i.e. the extent to which IUCN, other institutions or the rural population will continue to pursue the goal and purpose when the NORAD assistance is terminated;
- the co-ordination and cooperation with other institutions and projects;
- the follow-up of the recommendations in the evaluation report from November 1994;
- possible areas of cooperation and coordination between the present project and IUCN-ORMA's Wetlands Program proposal presently under consideration by NORAD;
- any other subject the team may find relevant.

4. IMPLEMENTATION

- 4.1. The team work will be performed during 12 days (in November / December 1996)
- 4.2. The team shall base their work on the review of relevant documents, meetings with IUCN personnel, representatives of the Demonstration Projects and other institutions and projects, and with the Norwegian Embassy in Managua. The detailed program for the study is the responsibility of the team, and the team should include the meetings and visits which are considered necessary.
- 4.3. All practical arrangements for the study are the responsibility of IUCN if not specified otherwise. IUCN will assist the team with the organisation of field visits and meetings.
- 4.4. The team will be composed of two persons covering the areas rural development and sustainable use of wildlife resources. The team leader shall be appointed by NORAD, while IUCN shall appoint the other team member.

5. REPORTING

At the end of the review, the team shall deliver a draft report, with a copy to IUCN. NORAD and IUCN shall submit their comments on the draft report to the team leader within two weeks after its delivery. After having received these comments, the final report should be finished and sent to NORAD within two weeks.

The report should be written in English, and should not exceed 20 pages, including a summary of major conclusions and recommendations. The report should additionally contain a list of performed meetings, visits and consulted documents. In addition to a printed copy of the report, it should be delivered in floppy disc in Word Perfect or Microsoft Word.

Managua,

Ingunn Klepšvik

Ingunn Klepšvik
Chargé d'affaires
Norwegian Embassy, Managua

Appendix 2: List of people consulted during the review

1. IUCN/ORMA Regional Technical Team, San Jose:

- Vivienne Solis, Regional Programme Coordinator
- Patricia Madrigal, Legal Affairs Consultant
- Ivannia Ayales, Social Affairs Consultant
- Nestor Windevoxhel, Director a.i. IUCN/ORMA

2. PANAMA

- Ing. Dimas Arcia, Vice Director of INRENARE
- Ing. Kruskaya Diaz de Melgarejo, Chief Wildlife Management Department, INRENARE, and Project Coordinator

a) Paca management project, Aguas Claras:

- Ing. Raul Fletcher, ANCON Vice Executive Director
- Lic. Antonio Telesca, ANCON Project Area Director
- Marita Sanches, Community member, in charge of paca breeding enclosure
- Local technician, In charge of project, Aguas Claras

b) Iguana Project, Cabuya

- Atanasio Rodriguez, Community member in charge of breeding enclosure

c) Turtle eggs project, Isla Canas:

- Linneth Cordoba, Project Consultant, Assistant
- Gabriel Aguirre, President, United Islanders Cooperative (UIC)
- Aida Rosa Vargas, Administrator UIC
- Jorge A. Rios, Secretary, Administrative Council
- Olmedo Perez, Secretary, Credit Council
- Margarito Moreno, Treasurer, Adm. Committee
- Alcibiades Caballero, Director Vigilance Committee
- Elpidio Vera, Member of Cooperative
- Edgar Samaniego, Head of Isla Canas Community Council
- Felipe de Gracia, Tonosi District History Patrimony Council

3. NICARAGUA

- Jose Leon Talavera, FUNDEVERDE NGO
- Isabel Gutierrez, CATIE student, Thesis on black iguana market study prepared with project support and presented to review team

Cosiguina Iguana project:

a) Omar Bacca Cooperative:

- Juan Pablo Martinez, President of Community Iguana Project Organization
- Felipe Canales, Vice President
- Petrona Maria Martinez, Secretary
- Emelina Mercedes Vilchez, Treasurer
- Jose Antonio Cardenas, Vocal
- Other community members present: Facundo Lopez, Jose del Carmen Maartinez, Tomasa Martinez, Evelia Lucia Lopez, Concepcion Alvarez, Paula Beltran Lagos, Arnulfo Betanco, Narciso Betanco

b) Technical staff:

- Pedraria Davila, UNAN/Leon Project Coordinator
- Loida Pretiz, Project IEC Consultant
- Jose Munguia, Director, University Biology Dept.
- Fernando Esquivel, Field Technician
- Ivannia Lovo Lopez, Project Consultant/Assistant

4. EL SALVADOR

a) Inter-institutional Network:

- Nelson Rosales, Maquilishualt Foundation
- Azalea de Granados, Natural History Museum
- Misaela Molina, Ministry of Education's Parks and Environment Department
- Melany Machado, IUCN Project Coordinator
- Manuel Benitez, IUCN National Programme Coordinator

b) El Jocotal Lagoon Project:

- Jose Hilario Mendoza, President of El Jocotal Community Development Association (JCDA)
- Carlos Osmin Carranza, Vice President JCDA
- Jose Alcides Chicas, Community Promotor
- Ana Julia Albarenga, Community Promotor
- Sonia Marleni Rivera, Community Promotor
- Lazaro Mendoza, Sindicato
- Miguel Angel Lopez, Member of IDEAS NGO
- Julio Gilberto Lopez, Park Warden
- Codin Lopez Hernandez, Park Warden
- Wenceslao Hernandez Martinez, President, Fishermen Cooperative Jocotal Lagoon (FCJL)

Appendix 3: Itinerary during midterm review of CAM 008

- December 1: Arrival San Jose late afternoon from Norway
- December 2: Meeting with IUCN/ORMA project staff
Travel to Panama late afternoon
- December 3: Visit with INRENARE and w/ ANCON at Aguas Claras
Travel by car to Isla Canas in evening
- December 4: Field excursion and meeting w/community
Travel via Cabuya (iguana proejct) to Panama city
- December 5: Travel to Managua. Meeting w/El Jacotal technical staff. Travel to Leon in late afternoon. Meeting with Cosiguina project technical staff
- December 6: Travel to Cosiguina. Excursion and meeting w/ Omar Baca Cooperative. Return to Managua in evening
- December 7: Consolidating notes and information obtained. Report preparation. Debriefing w/ Norad representative Mr Melby
- December 8: Travel to San Jose. Debriefing w/ IUCN/ORMA
Return travel to Norway
- December 13-14: Visit by Mr Smith to El Jacotal, San Salvador