Sida Support to Dissemination Division at Instituto Nacional de Biodiversidad, INBio Costa Rica

Evaluation of Phase I and Appraisal of Phase II

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LIST OF ACRONYMS

DBID Gestión Social, or the Division of Biodiversity

Information Dissemination

MEP Ministry of Public Education

MINAE Ministry of Environment and Energy

DG Director General DG
DDG Deputy Director General

FPN Fundación de Parques Nacionales NGO Non Governmental Organisations

Sida Swedish International Development Co-operation Agency

SAREC Sida's Department for Research Cooperation



EXECUTIVE SUMMARY

Background

This report is an evaluation and appraisal of the support to the dissemination activities at the *Instituto Nacional de Biodiversidad* or the National Biodiversity Institute (INBio) in Costa Rica.

The evaluation covers Sida support to a project, originally called "the Flow of Biodiversity Information from Wildlands to Society", later developed into a Division of Biodiversity Information Dissemination (DBID) or Gestion Social.

The appraisal covers a proposed continuation in a second phase of the same project.

The scope evaluation and the appraisal is limited to activities in relation to the dissemination division. According to the terms of reference, the recent development of INBio in general, is outlined, but not evaluated, unless important for the Sida supported dissemination project.

INBio

INBio is a non commercial institute in Costa Rica, established in the late 80s, with the objective to protect biodiversity in conservation areas and national parks, through promoting a non-destructive, commercial and spiritual, utilisation, and thus limit clearing and destruction in the areas.

The strategy is to collect samples of species, mainly insects and plants, classify the samples, store them in a collection and make the information about species and sites available through computerised systems.

Today INBio is a well established institute with 150 employees and an annual budget around USD 4 million. The collection contains more than 3 million samples of insects and 35,000 plants. The collection work is based on "parataxonomist"; men and women recruited from the communities near the conservation areas, trained by INBio and hired to do the collection work. At present 45 "parataxonomist" work in 29 sites throughout the country.

INBio promotes the use of biodiversity through agreements with commercial companies, world-wide, providing controlled access to samples from the collection.

The non-commercial utilisation of the biodiversity information is handled through the DBID. The division activities include a pilot project in elementary schools, curriculum development for elementary schools, intentional workshops and contacts with media in Costa Rica and world-wide. DBID has an important role in the internal information flow and in the process of creating an image of the institute through public awareness in Costa Rica.

Presently, most INBio activities are financed through donations and grants, but the institute is working on the establishment of trust funds, i.e. funds invested in bonds etc. that will yield a secure annual return over a long time period. Further commercial contracts contributes with an increasing share of the funding. At present 70% of the incomes emanates from donor contributions, while return from trust funds and commercial incomes contribute with 15% each.

This evaluation and appraisal

The evaluation and appraisal was carried out by one consultant during two weeks in September 1996. The consultant aimed at working closely together with the DBID staff, to achieve high level of participation in the activities. A target group analysis was carried out to estimate emphasis in activities directed towards the different audiences identified for dissemination.

Main findings

The DBID has over the 3 years of Sida support developed from a small project with one staff member, to a full fledged division with coordinator and 4 staff. During 1996 DBID represented approximately 10% of the entire INBio budget.

The main activities during the first phase have been:

- Elementary school pilot project.
- Production of teaching packages for elementary and high-school use.
- Public awareness, directed towards the public in Costa Rica, media, scientists and decision makers.
- · Activities for an international audience
- Internal information flow in INBio
- Publications

A target group analysis of the activities and the allocation of budget shows that during the first phase emphasis was put on general awareness, international contacts and elementary schools in San José. During the second phase more emphasis is given to activities targeted towards local communities in the buffer zones around conservation areas, conservation area staff, and INBio staff members. The elementary school activities are continued and broadened with participation in national curriculum development. Less emphasis is given to international audience and scientists in the second phase.

An expansion of the unit is foreseen, doubling the budget during the coming three years period. DBID is increasingly integrated in the INBio structure and the source of funding is broadened.

In a future vision all INBio staff is seen as disseminators and the role of DBID is to provide the support needed.

Recommendations

Sida is given the following recommendations:

- To continue the support, but as a support to dissemination activities carried out by DBID rather than support to the original project.
- Continue present level of contacts described as "hands of management"
- Ensure flow of information from INBio to Sida and other organisations in Sweden, dealing with biodiversity and conservation.

INBio is given the following recommendations

- Involve all INBio staff members in dissemination. The "parataxonomist" are specially important in the contact with local communities.
- The form and content of the information should be adapted to the demands and needs perceived by the target groups, this includes analysis of needs and formulation of strategies and priorities.
- Prioritise new user groups, such as buffer-zone communities and conservation area staff.
- Expand elementary school pilot project to a national level, starting in the buffer zone communities.
- Emphasis training of trainers approach to maximise outreach.

1 Programme Context

1.1 INBio in Costa Rica

Instituto Nacional de Biodiversidad (INBio) in Costa Rica is a private, non commercial institute with the objective of conserving biodiversity through its non-destructive utilisation. INBio was established in the late 80s, as a result of the recommendations of a governmental commission for biodiversity protection. INBio operates an inventory of the biodiversity in the conserved areas of Costa Rica. Species of insects, plants and molluscs are gathered by trained lay-men ("parataxonomist"). The samples are classified and stored in an archive. Information and samples are made available for commercial, social and "spiritual" purposes, to local people, citizens of Costa Rica, world community and commercial companies. Revenues from the utilisation is brought back to conservation and research activities in Costa Rica.

Sida has supported INBio since the beginning of the 90s. The first support was for the establishment of the institute and the collections. Later Sida support has focused on the development of a dissemination project.

Over the years a number of evaluation of different aspects of INBio has been carried out by Sida and other organisations.

2. This Evaluation

2.1 Objective & Scope

This report focus on the dissemination activities carried out by the Sida supported project "Flow of Biodiversity Information from Wildlands to Society" project, later Division for Biodiversity Information Dissemination or Gestion Social (DBID) which is only a part of the entire INBio. A first phase of the project, called "Flow of Biodiversity Information from Wildlands to Society" has received Sida support during 3 years, up to June 1996. INBio has submitted a proposal for extension of the support for another 3 years. A detailed proposal for the second phase, together with a LOGFRAME planning matrix was submitted to Sida in mid -96.

This is an evaluation of the first phase and an appraisal of the proposal for a continuing second phase.

The over all activities, development and policies of INBio are described but only included in the evaluation and appraisal when relevant for the Sida supported project.

2.2 Time & Methodology

The evaluation and appraisal was carried out during a 2 weeks visit to Costa Rica in September 1996 by one consultant.

The evaluation and appraisal were carried out with a high level of participation from the DBID staff. As a starting point for the process the questions and issues formulated by Sida in the ToR (se Annex I) were discussed. Indicators for the evaluation were identified and activities needed to verify the indicators defined.

The information needed was collected through, field visits, meetings with INBio staff and officials outside the institute (see Annex 2 for complete itinerary and list of persons met).

Half way through the evaluation, preliminary findings were discussed at a meeting with all DBID staff. The final analysis of the data was carried out by the consultant in close collaboration with divisional staff.

Preliminary findings were presented at a meeting with Sida programme officer, DBID staff and the INBio DG.

3. FINDINGS

3.1 Description of INBio

3.1.1 Objective and Strategy

The *Instituto Nacional de Biodivercidad* (INBio), in Costa Rica is a private, non-profit association, with the objective to promote awareness of the value of biodiversity and thus achieve its conservation and sustainable use. The strategy is to generate and process knowledge about Costa Rican biodiversity and communicates this information to a broad spectrum of national and international users, for their commercial, social and spiritual benefits. Revenue from the utilisation are returned to Costa Rican society through INBio.

3.1.2 History and development

INBio was initiated in October 1989, by a planning commission under the Ministry of Natural Resources, Energy and Mines in Costa Rica (later Ministry of Environment and Energy (MINAE). The commission was appointed to elaborate on strategies for inventory of biodiversity and the systematisation and availability of biodiversity information, including collections of samples. At the start INBio was assigned two main tasks: to increase knowledge about biodiversity in Costa Rica and to promote its economic and intellectual use. The first years after the initiation the INBio activities focused on developing structures and to raise funds for the collection. The actual collection work started in 1992.

The idea of financing part of the activities through trust and endowment funds was one of the corner stones to ensure sustainability. Donors a were, at an early stage, invited to contribute to the building of these funds. The money for the funds, was multiplied, through a system where shares of the Costa Rican foreign debt were bought from banks outside the country and placed in trust funds. The shares were bought for a price far below their face value. The return from the debt went to INBio. Thus the Government paid interest, not to foreign banks, but to conservation initiatives in the country. The transaction was called debt for nature swap. Large investments in Guanacaste Conservation Area was financed through this system.

From its initiation up to July 1992, INBio raised around USD 6,8 million from 50 grants, that was locked up in the trust funds.

3.1.3 INBio at present

INBio today is an institute with 150 employees and an annual operational budget of slightly less than USD 4 million. The activities are organised in 4 divisions; inventory, information management, bio-prospection and dissemination.

The backbone of INBio is the collection of bio-diversity information and samples from protected areas around the country, carried out by a staff of 45 "parataxonomist", at 29 sites (se fact-box on parataxonomists) under the **inventory division**. The samples collected are classified and stored in the collection.

The countrywide inventory focus on insects, plants and molluscs. The collection of insects, being the largest, consists of 3 million samples, of which more than 2 million has been identified to species. The botanical collection contains more that 35,000 samples. In 1995 a total of 43 new species of plants were described.

Fact Box: "Parataxonomist"

Presently 45 parataxonomist are working in 29 sites.

The parataxonomists are recruited from communities close to the conservation areas where they shall work. After a 6 month training course they are employed by INBio to carry out collection of samples in a conservation area. Each parataxonomist is equipped with a small office with simple tools to dry and prepare the samples. Once a month they travel to the INBio office in San José to deliver samples.

The "parataxonomist" are supported by curators, who have deeper scientific knowledge of the taxonomy and can assist the parataxonomists to develop their ability to examine the samples. After a few years service most of the parataxonomists specialise in one group (as butterflies, plants etc.) and as work proceeds they gain considerable knowledge and are often able to classify down to families or genus.

After the 6 months training course they receive a salary of between C 65,000 and C 90,000, which is about 15% above ordinary salary level. The profound knowledge of natural history the parataxonomist acquire is attractive in other sectors and resigned parataxonomists are found as tour guides, local research assistants, etc. Usually the parataxonomists are respected for their work in the community, and as information about INBio is spread, local people become more interested in what they are doing.

INBio has since 1989 arranged 5 courses for parataxonomists. Each course with 15 participants. The courses has been held at INBio office in San Jose.

The firs course was arranged in close collaboration with Daniel Jansen, basically focusing on training field assistance for his work in Guanacaste. The participants were park guards and other staff in the conservation area.

The second course was arranged in 1991, focusing on training people from NGOs. During the course the participants received salary from their organisations, while INBio covered all costs for accommodation and tuition. Candidates were nominated by the NGOs while INBio made the final selection of participants.

The third course was targeted towards women. Participants were recruited through advertisement, announcements in church etc. in communities near the conservation areas. Out of 180 applicants 18 were selected. Several of the women trained are today experienced and good parataxonomists but the number of dropouts are higher among female parataxonomists and in the future the courses will be mixed.

The fourth course, arranged in July 1994, focused on marine collection, targeting people from the coastal areas. The course content was revised to include aspects of communication and contacts with communities and the course was implemented in close collaboration with the conservation areas. This was the first course that actually catered for all the INBio needs, containing not only aspects of collection, but also the social dimension of dissemination and utilisation.

The fifth course is to be held next year and will specialise on training of parataxonomists for the "all taxa biodiversity inventory" in Guanacaste. For the first time the DBID will have an input in the planning and implementation of the course.

Information about each item collected is entered into a biodiversity database operated by the information management division.

The bio-prospecting division is exploring the potential for commercial utilisation of the samples collected. Presently the division holds a wide portfolio of agreements, including 7 important contracts with large companies, of which the agreement with the pharmaceutical company Merck is the most known, albeit not the most important (see fact-box on Merck agreement). Besides the commercial agreements the division has its own projects, focused on different use of biodiversity, e.g. a project to identify and explore new fragrances for perfume industry.

The prospecting is undertaken in collaboration with MINAE and local universities. Funds generated by the agreements signed by INBio are shared with these institutions. During 1995 the commercial agreements signed by INBio brought 12 million colones (USD 70,000) to MINAE, used for conservation efforts at Cocos Island.

Fact-Box: The INBio - Merck agreement

The first agreement between INBio and Merck was signed in late 1991, valid up to early 1994. Considered successful the agreement was renewed in 1994, with similar conditions, and is still valid.

According to the agreement, Merck company gets access to a limited amount of samples during a limited time, for analysis and detection of useful substances. The samples are selected by Merck from a list of potential species presented to the company by INBio. This shopping list contains species available in large quantities (samples of up to 10 grams) and species that potentially can be produced outside the protected areas, or harvested in larger quantities without affecting natural balance in the protected areas.

The access to samples do not include free users rights of detected substances. The agreement contains conditions for commercial use of any substance derived from the samples. The details are confidential but includes royalties to INBio and guarantees for research and production components in Costa Rica.

For the access to the samples Merck company pay a yearly revenue to INBio, funds that are shared between INBio activities and activities in protected areas and research at Costa Rican universities.

The Gestión Social, or the Division of Biodiversity Information Dissemination (DBID) is disseminating biodiversity information to national and international audiences.

The division activities include a pilot project in elementary schools, curriculum development for elementary schools, intentional workshops and contacts with media in Costa Rica and world-wide (see below). DBID has an important role in the internal information flow and in the process of creating an image for the institute.

3.1.4 Finance and administration

During the last years INBio has grown rapidly. The expansion has forced a decentralisation of the administrative power in the institution. The executive function, that, previously, was in the hands of the DG, has been delegated to a management committee. Each of the divisions are headed by a co-ordinator. The Division Co-ordinators control funding and activities in their divisions, and a Deputy Director is in charge of most of the in-house activities at INBio, while the DG focus on policy work and international contacts.

The funds are managed by a central accounting unit, reporting to the DG and the division co-ordinators. The accounts are audited annually by a recognised external audit company (Coopers & Lybrant).

3.1.5 Budget & Funding

INBio rely on three principal sources of funding; donations, return from funds and commercial incomes. The trust funds are developed through donation from international organisations, donors NGO etc. Further a share of income generated from commercial activities will be invested in the trust funds.

During 1995 the grand total of incomes for INBio amounted to USD 3.7 million. Commercial incomes and return from the trust funds contributed with 15% each, while the lion-share, 70% emanated from donors, project funds, NGO and private donations, what in INBio is called "soft funds".

The expenditure for 1995 totalled to USD 3 million, the distribution of expenses between the divisions in shown in table 1.

table 1, -95 years expense breakdown between divisions of INBio

Division	Amount	Percent
Inventory	USD 973,000	32%
Information management	USD 304,000	10%
Biodiversity prospecting	USD 517,000	17%
DBID (Gestión Social)	USD 274,000	9%
Special programmes	USD 608,000	2 0 %
Administration	USD 365,000	12 %

Note: The special programme includes collaborative activities with Guanacaste Protected Area and other, as international presentation of the children's forest, purchase of the biological corridor in Region Cacao, restoration of dry-forests in Guanacaste etc.

The 1995 financial year resulted in a net surplus (after deduction of financial costs) of USD 700,000 that was invested in the trust funds.

The expenditure for 1996 is budgeted to USD 4 million. During 1997 a large increase in soft funds is predicted. The Dutch government has committed USD 4 million for structural development at INBio. Further a large inventory programme, covering all living species in Guanacaste (All Taxa Biodiversity Inventory), with a budget of around USD 12 millions, will be managed by INBio.

Comments

A target for income generation has been defined to ensure sustainability, with equal contributions from the different sources; soft funds, trust & endowment, and commercial incomes.

Presently this target seems difficult to achieve. INBio, gaining increasing international recognition, is attracting funds from many donors and organisations, and a rapid growth of soft funds can be foreseen.

If Sida should consider support to INBio after the second phase of support to DBID, this situation should be re-evaluated, and the possibility to make donations in form of endowment funds considered.

3.1.6 Sida support to INBio

According to an agreement from March 1998 Sida is giving support to biodiversity information dissemination with an amount of SEK 2 millions (estimated to USD 250,000) distributed over the financial years 93/94 to 95/96. A continuation of the support for another 3 years has been suggested and awaiting an evaluation a bridging grant of SEK 350,000 was given for the period July to December 1996.

Sida has previously, in early 1990, granted SEK 4 million to an INBio trust fund, through the debt for nature swap. The donation was made under an agreement valid from March -90 to November -91, were the objective for the support was stated as "to establish national biodiversity inventory", and was to be achieved in 10 years.

The Swedish money was invested in a trust fund, locked for 20 years. The SEK 4 million, corresponding to USD 610,000, was used to purchase bonds in Costa Rican Colones and USD. The estimated annual return amounts to USD 80,000 (SEK 520,000) for the coming 20 years.

The fund is managed jointly by Fundación de Parques Nacionales (FPN) and INBio, through a Costa Rican bank. According to the agreement the funds are to be used for the development of INBio according to annual plans and budget.

3.2 Division of Biodiversity Information Dissemination (DBID)

3.2.1 Mandate and strategy

The Division for Biodiversity Information Dissemination (DBID) or Govern Social has the mandate to explore the spiritual value and

social uses of the biodiversity information through dissemination programmes and activities developed for a national and international audience. This includes both commercial and non-commercial activities.

3.2.2 History

When the amount of information gathered by the inventory division became substantial, there was seen a need to establish programmes for the use and dissemination of the information. Negotiations started with Sida in 1993 for support to a dissemination project. The discussions resulted in a proposal for 3 years support to the "Flow of Biodiversity Information from Wildlands to Society". This was a very open project focused on the development of a dissemination programme close to the rest of INBio activities. Five areas of activities were suggested; Biotelematics, biodiversity education programme, information programme for the agricultural sector, information management for the conservation areas and production of informative materials and products.

Sida decided in 1994 to support the proposal with USD 100,000 p.a. for three years (see 3.1.6 Sida support to INBio).

When the Sida agreement expired in June 96 a proposal for a second phase of the support, had been submitted by INBio. Awaiting an evaluation of the project and an appraisal of the proposal, a 6 months bridging grand as approved, up to December 1996.

3.2.3 Achievements during the first phase

3.2.3.1 Staff and organisation

During the first year of the Sida support, there was only one staff member assigned to the project. The following year two new staff members were recruited, Dr. Alfio Piva (present co-ordinator of bioprospection division) was appointed part time co-ordinator for the project and part of his salary was taken out of the Sida grant.

In 1996 the project became a full fledged division, with Ms. Elvira Sancho as co-ordinator. During 1996 two more staff members were recruited. During 1995 an editor was recruited, who resigned the same year. The DBID is presently supported by a voluntary worker, who assists with editing of publications and organisation of international workshops.

Presently the division has six staff members, one coordinator, one editor, two assigned to elementary school projects, two working with communication and computers.

3.2.3.2 Elementary school programme

A pilot project for elementary schools was started during the second year of the Sida support, with the objective to include aspects of biodiversity in a wide spectrum of topics in the elementary school curriculum, such as science, art, Spanish, geography etc. The strategy is to develop and produce teachers guides and teaching material that can be used in schools throughout the country.

This material is being developed in collaboration with teachers, from elementary schools. For the project, two schools in Santo Domingo area (near INBio office), Escuela Rubén Darío and Escuela Central, were approached. After permission from the Ministry of Public Education (MEP), all pupils at the schools were invited to short introduction visits to INBio office. During 1995 a total of 6,000 elementary school children from the two schools, visited INBio.

To start the development of the guides and material, teacher were invited to participate in workshops, where the idea was explained and the activities outlined. Two workshops were conducted, one in February and one in July 1996, each of the workshop with 35 teachers in different topics from the two schools. Of the participants 96% were women, which reflects the gender composition of the cadre of elementary school teachers in Costa Rica. As a follow up to the workshops INBio support the teachers to arrange activities with pupils from the two schools.

The activities are described as formal and non-formal. The formal consists of four half-day visits to INBio and a field day in a near by national park for each class in grades four through six. The visits to INBio are called biodiversity labs, or "parataxonomist for a day", where the pupils collect samples of plants or insects and classify them together with parataxonomists from INBio. During the national park visit, the class is guided by parataxonomists through a rain forest trails.

The activities are based on the interaction between school children, their teachers, INBio parataxonomists and DBID staff. All practical arrangements are carried out by DBID staff, and DBID covers all costs.

The in-formal activities has not yet been arranged but are planned as voluntary activities after school hours and during weekends at INBio, related to the labs and visits.

The DBID also participates in the development of biodiversity syllabi in a revision of the elementary school curriculum, done by the MEP. In this work INBio has contributed with advise and material for biodiversity education, while the ministry is responsible for the final design of the curriculum.

An activity in DBID outside the Sida funding is a project to produce electronic teaching material in Biodiversity in Spanish. Expected outcome are CD ROM, Spanish WEB pages etc.

A book, in Spanish, for use in elementary schools has been produced in collaboration with the students in the pilot area schools.

Comments

The elementary school programme is a strong and important part of the INBio dissemination activity. What started as a general awareness-making programme for schools, is gradually, thanks to the interaction between teachers and DBID staff, developed into a production of well adapted material, fitting into several syllabi for different topics of the elementary school curriculum.

The pedagogical competence within DBID is strong and will enable the production of a good, useful and well adapted material.

The weak part of the education programme lies in the lack of strategy for the expansion of the programme to a national level. Within INBio there are only vague ideas about the funding for a large scale production and distribution of the material. Ministry of Public Education has no funds for production and the schools have only limited ability to purchase teaching material.

The present programme is based on further training of teachers in workshops and on the involvement of parataxonomists in school activities. Thus it is not only a question of distributing the material to schools in the country, but successful implementation requires workshops for teachers and contact with INBio parataxonomists.

In the plan for the second phase of the DBID this issue has not been mentioned. To continue the success of the elementary school programme a strategy for a national expansion is important and should be planned now. In line with INBio and Sida objectives it would be desirable to focus the process of national expansion in communities close to conservation areas.

3.2.3.3 Biodiversity and telematics

The "telematics" was introduced in Costa Rica in the beginning of the 90s based on a US concept of computerised learning for young school children. The programme was operated by Omar Dengo foundation, a semi autonomous organisation, financed by the Ministry of Public Education. The target was to establish 300 computer centres in public schools with a special soft-ware called LOGO, developed for school children in the US.

Omar Dengo foundation contacted INBio in 1994 and requested assistance to develop biodiversity material for used in the centres. From the start it was unclear what Omar Dengo expected from INBio and little was achieved in the early co-operation. INBio regarded the computer systems obsolete, and found that the standard products that INBio provided, as web page and access to the biodiversity database, were incompatible with the computer system used by Omar Dengo.

In 1995 the Omar Dengo foundation was restructured into a project for Electronic Information Centre (Kiosco de Información), still under the Ministry of Public Education. The Information Centre is a service to provide support to teachers and students in elementary and high schools thorough Costa Rica. The centre is open for questions by phone or fax. A group of specialists prepare an answer for each questions that is return by fax (or if available e-mail). The specialists have a high pedagogical ambition to provide information in suitable packages, adapted for the curriculum and the level of the school and students. The answers are selected from a large library of ready-made packages, that if necessary can be adapted. New packages are continuously developed. INBio has provided material for 5 packages related to biodiversity teaching.

Presently the Information Centre answers around 200 requests per week. Up to date 2,000 information packages have been developed, covering all topics in the curricula for elementary and high schools. In Costa Rica, 200 elementary schools (out of 3,000) and 150 high schools have access to e-mail. The Information Centre has provided 150 schools with fax facilities.

Comment

The information Kiosk system is interesting from a pedagogical point of view. A relatively large number of schools are involved and access to fax and e-mail is not restricted to towns and central areas. Thus with the packages produced the dissemination of biodiversity information (or bio-literacy as it is often labelled) reach through out the country.

It is worth noticing that the Information Kiosk projects take the pedagogical responsibility for the products and do approve (and change) the package accordingly. The packages provides a low cost opportunity to reach a large group of students and teachers. Though it should be noted that the system provides answers to questions and thus primarily target those who are interested and aware of biodiversity thus this dissemination channel has less value in general awareness-making.

3.2.3.4 Public awareness (PA)

The general objectives for the PA activities is to establish and strengthen an awareness of biodiversity as a valuable resource that needs protection, but also can be utilised, in the minds of the general public of Costa Rica. A more specific objective is to create and strengthen a perceptual connection between biodiversity and INBio. In the dissemination programme, considerable emphasis has been put on PA activities. Three target groups has been identified as important for general awareness; decision makers, media, scientists.

Only during the last year or two, INBio has had structured, hard core, information to provide and thus much of the message up to now have contained general information about biodiversity. After the controversy around the Merck agreement, it was realised that more detailed information on INBio activities is needed for the general public.

The directors have spent considerable time in direct discussions with high level policy an decision makers at several ministries. Thus providing personal advise on changes in policy and legislation for conservation and utilisation of biodiversity. This is seen as one of the more important contributions to the strengthening of the INBio and is regarded as PA activities.

Media has been identified as an important channel to reach large number of Cost Ricans. Two workshops have been arranged for journalists from newspapers, radio and TV. The workshops have included general presentations of INBio activities and a guided field tour to a protected area. The efforts resulted in a increased attention in Costa Rican media.

Comments

The "spiritual use" of biodiversity information, is one of the INBio targets, it is abstract and difficult to quantify, nevertheless important.

It could be described as a feeling of well being in the mind of Costa Rican citizen based on a perception of international importance and a non-material wealth, emanating from the knowledge of the biodiversity richness in the Country and the efforts made to conserve it. This value is based on more than the awareness of a potential and sources of material wealth from the wilderness. The feeling is particularly important in an urbanised society, where many children grow up without regular contact with nature and without a traditional feeling for the use of natural resources and the knowledge that follows.

During the first phase of the Sida support, the DBID has spent considerable effort on activities strengthening the general awareness of biodiversity. In the light of the importance assigned to the "spiritual value" of biodiversity, this emphasis seems well justified.

3.2.3.5 International image

As a part of the P.A. work carries out by the DBID workshops for visiting international scientists, NGO and policy makers has been organised. This has been commercial arrangements or activities with direct donor funds and do not fall under the Sida support. Nevertheless the activities deserves being mentioned since they have contributed to create an international knowledge and recognition of INBio.

Two newsletters are produced one in Spanish and one in English, together with a variety of information brochures and leaflets in both languages for national and international audience.

Comments

In an early phase of the Sida support, funds where used to cover parts of the salaries for the DG and the DDG. This was motivated by the important role these persons were playing in the dissemination process through international contacts and through contacts with Costa Rican decision and policy makers. As the dissemination programme expanded into a division, with an appointed co-ordinator and an increasing number of staff, the salary for the directors is no longer a part of the DBID expenses.

3.2.3.6 Internal information flow

Over the years, INBio has been constantly growing, several times doubling its budget and staff. In the process of rapid expansion the maintenance of an internal institutional image and information flow, has been seen as very important. The DBID has been assigned the role to create and maintain this by providing information material, secure internal flow of information, participate in the organisation of the institute, produce annual reports etc.

Under the strategic alliance programme a databases with external contacts and agreements have been established to assist all INBio staff in co-ordinating contacts and identifying collaboration partners in Costa Rica and internationally. The information is available for all staff, as a support for external contacts, but is also used in systematic identification of important INBio contacts for a targeted information dissemination.

DBID has initiated a series of workshops for training parataxonomists in communication skills. Up to date two sessions has taken place; a two days workshop in San José with 30 parataxonomists and a smaller one day workshop in Santa Rosa conservation area for 12 parataxonomists.

Comments

The strengthening of the internal information flow and the support of an internal INBio identity are not mentioned in the phase I proposal to Sida, but has nevertheless proven very important for INBio as an organisation. It might seem irrelevant for Sida to support internal information and image building, but the process has contributed to an integration of DBID into the INBio organisation and an increasing awareness of the importance of information dissemination among the staff. Both aspects creating potential for a better information flow. An examples of this is the parataxonomists increasing involvement in the dissemination work in local communities and schools.

3.2.3.7 Scientific and Educational publications

The DBID is assigned the task to produce scientific and educational publications at INBio in the form of books and brochures. Scientific articles for journals etc. are usually written by the scientists but DBID provides assistance.

A target has been set to 3-4 publications per year each printed in 1,000 - 1,500 copies. Up to now 2 monographs, 5 workshop proceedings and 6 annual reports have been produced and 3 monographs are in press (for detailed list see Annex III).

Comments

The sale of produced publications is seen as one potential source of funding for the DBID after a the termination of Sida support. The publications are presently distributed in small, retail quantities, directly to international and Costa Rican buyers by the DBID staff. Unless the distribution of the books is handed over to a commercial distributor, either on contract or through whole sale of bulk quantities, the time needed to handle the orders, pack and send the books, invoice and follow up payment etc. is likely to swallow eventual surplus from the book production and consume valuable staff time more useful for other purposes.

3.2.3.8 Biodiversity information for Conservation areas

During phase I of the Sida support, a number of workshops has been arranged to reach people living and working in the conservation areas such as "parataxonomists", conservation area staff and communities in the buffer zones.

In February -96 a 4 day meeting was held in the Osa peninsula are for educators, researchers, eco-tourism staff and forestry and development associations. The objectives were to discuss how biodiversity information could be used by people in the area, for their benefit and for the support of conservation efforts.

In April -96 a similar meeting was arranged in Amistad Conservation Area where 15 member of the conservation area staff interacted with INBio staff to achieve better understanding of the needs in a future collaboration.

In March and April 96 a series of 3 one day workshops were arranged in the Guanacaste area where teachers from local communities were given information about INBio activities.

3.2.3.9 Agricultural sector

In the proposal for phase one, information to the agriculture sector was identified as one of the areas to be covered by the programme.

During the implementation, no activities related to the agricultural sector has been carried out. The agriculture production is seen as an area outside the INBio mandate and little contacts are established with organisations in the sector.

4. TARGET GROUP ANALYSIS OF ACHIEVEMENTS AND PLANS

This chapter contains analysis of the activities and achievements during the fist phase and an assessment of the proposed second phase.

In the analysis, the major target groups (or target audiences, as they are described by the DBID) was listed, and activities carried out were assigned to one or several of the target groups. The funds used in activities directed to each target group, was estimated. To facilitate the comparison between the two phases, the funds have been calculated as percentage of the entire budget.

Number of activities and total budget was used as indicators for emphasis directed towards each of the target groups. The same analysis was carried out with the proposal for the second phase. Based on data from this analysis, trends and changes in dissemination focus for DBID was identified.

The impact was assessed from field observations and from discussion with INBio staff.

This analysis has been carried out in close collaboration with the staff of the DBID unit.

Data from the analysis is presented in table 2 and diagram 1.

Table 2, Activities and budget for phase I & II in relation to different audiences.

	Phase I	Phase II
International Audience	 Workshops WEB page Annual report Newsletter Books & Publications CD ROM material 	WorkshopsWEB pageNewsletterAnnual report
Scientists	 Journal articles Conferences Workshops Access to prime data Monographs WEB page 	
Institutions in Costa Rica	Special informationDirect policy advice	 National poll on biodiversity awareness Policy advice Special information
General Public in Costa Rica	 Elementary school programme Public Awareness Media contacts WEB page Newsletters 	 Elementary school programme Learning packages WEB page Public Awareness Newsletters Media contacts
People in buffer zone	 General information about INBio activities (see general public) 	Video
Conservation area staff	 General information about INBio activities (see general public) Guidebooks Information material 	Communication trainingExchange with INBio staffBrochures etc.
INBio staff	 Communication workshop Database on external contacts Some information material 	 Training in communication Institutional image Material for dissemination Database Exchange with field staff

Table 3 Target group analysis of funds allocation and budget.

Target group	Phase I USD	per cent	Phase II USD	per cent
International audience	87,000	32%	0	0
Costa Rican institutions	51,000	18%	0	0
Elementary schools	57,000	20%	70,000	13%
Ministry of Education	0	0	55,000	11%
Public Awareness	79,000	28%	133,000	25%
Buffer zone communities	0	0	59,000	11%
Conservation area staff	4,200	2%	130,000	25%
INBio staff	0	0	75,000	15%
Total	278,200		522,000	

note: 1, the budget for phase II of DBID includes other donors than Sida. To facilitate comparison with phase I the planned expenditures are calculated in percent of the total budget.

4.1 Analysis of focus in information dissemination

The information disseminated during the fist phase of the DBID focus on the following target groups.

4.1.1. International communities

International organisations, environmental NGOs, governments etc. has been one of the major target groups for information dissemination during the first phase.

General information has been provided in the form of leaflets, newsletters, books and publications. INBio has its own

^{2,} Sources for the figures in the table is INBio DBID accounts and budget, but adjustments discussed in the text below, emanating from discussions with DBID staff, has been made in the numbers presented.

home page on the World Wide Web and CD ROM technology is used.

INBio has also started providing more specifically information regarding its activities and bio-diversity research and utilisation in Costa Rica. The INBio DG has spent considerable time in the international policy work for protection and utilisation of biodiversity.

Approximately USD 62,000 (or 22%) has been spent directly on activities targeted towards an international audience during the first phase of the Sida support. Further a relatively large amount was spent on external contacts by the directors. It is assumed that at least USD 25,000 (9%) has been spent on time for international contacts giving a total of USD 87,000 or 32% of the total DBID budget.

4.1.2 Scientists

National and International workshops has been organised by the DBID albeit outside the Sida funded project. Several scientific articles are published and scientists world-wide are offered access to the structured data available at INBio. Most of these activities are supported by DBID, but the main responsibility lies with other divisions in the institute.

None of the funding from the Sida grant was used on activities targeted towards scientists.

4.1.3 Costa Rican government institutions

Ministry of Environment and Energy and Ministry of Public Education have been important target groups for activities during phase I. INBio has provided special information, (e.g. species lists for sensitive areas to be used in Environmental Impact Assessments) but more important are the informal contacts between scientists and directors at INBio and policy makers at the ministries. The present government emphasis decentralisation and sustainable development through use of the biodiversity. INBio provides advise and consultancy to this process.

No special budget item exist for this target group, but most of the costs related to national institutions arise from time spent by directors, accounted for under PA activities. As a rough estimation USD 51,000 or 18% of the total budget can be said referring to this target group,.

4.1.4 Costa Rican general public

Especially urban middle class in Costa Rica, has been another important target group for INBio information. The pilot projects in elementary schools in the capital, the focus in local media, WEB page, local newsletters are activities directed towards this group.

During the first phase of the Sida support USD 57,000 (20%) was spent on the elementary school project. A total of USD 155,000 was budgeted for on public awareness activities, but of these funds a considerable share has been used on other target groups (see above). As a rough estimation USD 79.000 (28%) remained.

4.1.5. People living near the conservation areas.

Only in the recent year DBID has tried to reach the communities close to the conservation areas. These communities have previously been exposed to the same information flow as the rest of the Costa Rican citizens (mentioned above). Recently the need for special information has been identified and some activities has started, albeit still at a modest level, in comparison the focus on other groups, mentioned above.

In the budget for phase I, no separate item exist for this target group, the activities carried out are financed under the PA budget.

4.1.6 Conservation area staff

The staff working in the conservation areas has been exposed to some general information regarding INBio and its activities. P.A. material and information leaflets produced for general awareness making has been made available to them. But the main channel for contacts with INBio is the parataxonomists.

During phase I, USD 4,200, or 2% of the total budget, has been used on activities related to conservation area staff.

4.1.7. INBio staff

A recent trend in the DBID is focus on INBio staff members. Albeit not in the original proposal, the growth of the institution has created a need for facilitation of in-house flow of information.

Under the first phase of the Sida support no costs are specified for this target group. According to the estimation of the DBID staff, the expenses incurred are accounted under PA funds, and are very limited.

4.1.8 General trends

This analysis shows a focus on international audience and Costa Rican general public, during the first phase of the Sida support to DBID. Towards the end of the period, as the dissemination programme evolves into a division, more emphasis is given to information to local communities and conservation area staff. Internal information flow is a new area assigned importance during the support period.

Comment

The development of emphasis in DBID can be seen as a reflection of the entire INBio development. During the early part of the dissemination project INBio was in the phase of starting up the collection activity and the gather information. It was very important for the continuation, to establish an international reputation, to attract donor funds, and to create an image in Costa Rica of an institution seriously involved in the conservation of biodiversity.

As the collection work started and INBio grew into a large and recognised institution, the need for information dissemination changed. Requests for the dissemination of specific information increased, both within and outside INBio. Scientists needed channels to publish their findings. And as information from the inventory became available in a structured way, a flood of well defined specific requests followed.

4.2 Appraisal of focus for activities in plan for phase II

4.2.1 General trends

The public of Costa Rica is still one of the major target groups, during phase II, but among the others there is a shift from a focus from international community towards the conservation areas, communities in the buffer zone and INBio staff.

A trend in the DBID, observed in the phase II proposal, is a move towards more clearly defined target groups for dissemination and an increasing interaction with the audiences.

It should be noted that the budget for the coming three years is almost double the present DBID budget. This reflects a general growing of INBio and an increasing importance assigned to dissemination activities.

4.2.2. Specific target groups

Public relation activities such as newsletters, Web-page, contacts with media, brochures etc. are given a high priority also during the second phase. The total budget for the PA activities is estimated to USD 133,000 for the tree year period, corresponding to around 25 % of the total budget, compared to 28 % for phase I.

The elementary school project will continue to be one of the emphasised areas with a total budget of USD 70,000. As a compliment to the pilot project, DBID will strengthen the collaboration with Ministry of Public Education (MEP). A total of USD 55,000 (13%) is budgeted for the collaboration during the 3 year period.

The plan for the second phase contains increasing number of dissemination activities targeted towards the conservation areas.

Capacity building workshops for staff, support to the establishment of nature trails, staff exchange with INBio and production of brochures and other material are activities planned. The budget for support to conservation areas totals to USD 130,000 (25%) for the coming three years.

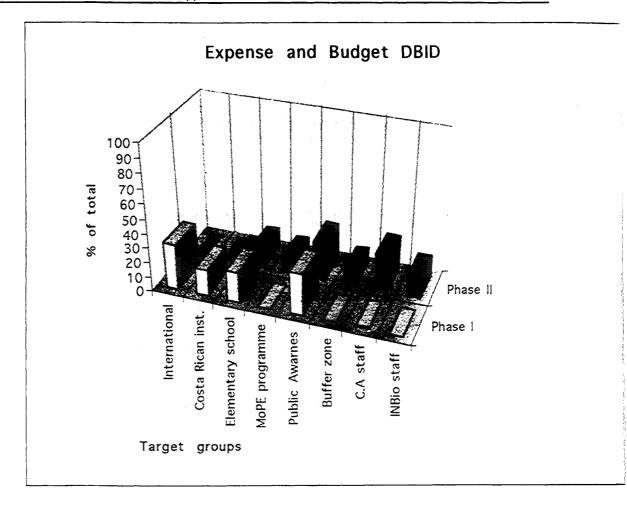
The communities in the buffer zones (living near the conservation areas) is an other are the receives increasing attention during the second phase. Workshops are planned to present INBio as an institution and to inventory needs perceived by people in the communities. Funds are set aside to provide information on request. Examples of ideas that have being voiced at previous workshops, in buffer zone communities are support to butterfly museums and biodiversity courses in local high schools to train tourist guides. In the budget for the next phase a total of USD 59,000 (11%) has been assigned for activities in buffer zone communities.

INBio staff is a category that is given increasing attention in the plan for the second phase. DBID is assigned the role of manager of internal information, which is reflected in the workplan. An important task is the involvement of all INBio staff in dissemination activities. A key group is the parataxonomists, who are offered training in communication and provided with support material for dissemination in local communities, schools etc.

But there are also activities to support other categories of staff to work with information, such as training in communication, editorial support, the production of information material for distribution and a bank of slides and other tools for use by the staff. For activities targeted towards INBio staff USD 75,000 (15%) is budgeted.

There are no activities targeted towards international community planned for under the second phase of the project.

Diagram 1, Distribution of DBID Expenses during phase I and budget for phase II (data see tab 3).



4.3 Summary of Impact of DBID during phase I

The international activities have created a strong support for INBio in the global environmental conservation community. This is indicated by a number of prestigious rewards honoured DR Gamez and the institution, and by an increasing number of requests for INBio to host global and regional conferences and workshops.

The P.A. efforts made in Costa Rica have had an impact on the awareness of biodiversity and of the perception of INBio in Costa Rica. Ordinary people have become more interested in biodiversity and the aspect of conservation and bio-prospecting. As a result there is an increasing need for transparency and accurate information on INBio activities to the general public. INBio information activities

have contributed the spiritual use or value of biodiversity albeit difficult to describe and quantify this impact.

The elementary school pilot programme has, in spite of its short life-time, had an impact among the involved pupils. Interest to penetrate and further exploit nature has been awakened. Some will follow this interest further and deepen their knowledge, while others will specialise in other areas, but all will remain with a basic feeling of nature's richness.

So far the impact of the school programme is limited by the number of schools involved. Thus, as mentioned above, strategic plans are needed to expand the pilot phase into full scale activities. The involvement of the "parataxonomist" is the key to success.

The impact in the communities surrounding the conservation area has so far been limited. A spontaneous interaction between "parataxonomist" and their neighbours has shown an interest for specific information in local communities. The training of "parataxonomist" in communication skills that has been initiated, is a good initiative to support this interaction. It will provide the "parataxonomist" with tools to facilitate communication (as exhibits, plays etc.) and, maybe more important, it works as an official sanction for them to spend time with the communities.

Among the **INBio staff** DBID has recently started to play a role as facilitators and to organise the internal information flow, but the time is still to short to assess any impact.

5. EVALUATION AND APPRAISAL

5.1 DBID in INBio context

5.1.1 Past

The Sida supported project was initiated by the management of INBio, at an early staged in the history of the institute, based on a idea, rather than on concrete needs. The emphasis in the first proposal was on the need for a degree of freedom allowing for an organic growth of the project along with the rest of INBio. During the first year of the project, a substantial part of the funding were used as salaries for DG & DDG allowing them to spend time on dissemination, such as travelling to international meetings, meet Costa Rican press, receive foreign visitors etc.

5.1.2 Present

Presently DBID is established as one of the divisions of INBio, with a co-ordinator who is a member of the management committee and with its own budget. The unit is well staffed, with competent and specialised employees well motivated to work with the information activities.

This is the result of an ongoing integration of the unit in INBio, noticeable in, among other things, the extension and communication module in the parataxonomist course, the increasing use of parataxonomists in the dissemination activities, information material produced for scientists who are assigned dissemination task, production of a WEB page, etc. DBID has also played an increasingly important role in the efforts to create and strengthen an internal INBio identity, and to promote internal

information flow, such as the establishment and maintenance of a database of donors and strategic contacts.

5.1.3 Future

There is a vision, shared by the division, the management committee and several members of the INBio staff, that, in a future, all staff members should participate in the dissemination of information. DBID's role in such a future scenario would be:

- to assist INBio staff in dissemination, by producing and making available material, such as brochures, slides, presentation, etc. and by providing training opportunities in communication and presentation,
- to facilitate flow of information inside INBio, to ensure that the staff has a fair idea of the ongoing activities and the prevailing targets and strategies of the institution,
- to adapt and pack information for target groups with special requirements such as press, schools, and ministries and electronic publications.

This vision is reflected in the proposal for the second phase.

5.2 Financial sustainability

DBID represent slightly below 10% of the entire INBio spending. The growth of INBio is reflected in the DBID budget for the coming years, the total estimations for phase II is almost double the amount spent during the last years, while its share of the total INBio expenses will remain approximately the same.

Sida contributed during 1995 with 80% of the budget for DBID. There is an increasing effort to identify other sources for funds, and during the 1997 budget year, the Sida contribution, if granted, will provide only 50% of the total funds, although the amount remains the same.

In a longer perspective there is a clear intention to finance DBID in the same way as the rest of the institute, according to the principal of 1/3 soft funds, 1/3 return from endowments, 1/3 commercial incomes.

It does not seem very likely that INBio will manage to achieve this target, but it seems likely that the management will take full responsibility for funding DBID after the expiring of the next phase of Sida support.

There is a clear intention to broaden the number of donors and projects in relation to DBID and by the end of the Sida support the continuos funds for the department will be secured.

5.3 DBID in relation to Sida priorities

Sida emphasised in the decision regarding the support to the first phase the importance of reaching the local society with relevant information on biodiversity. It is clearly stated that the information should be useful for the target groups, thus contributing to sustainable protection of the areas through non-destructive utilisation.

The activities of DBID during the first years have been less focused on specific information to local communities and more geared towards general information and awareness making, targeting Costa Rican society in general and the interested international groups.

The planned activities for the second phase has a clearer defined focus on communities in and around the protected areas. (se target group analysis).

In relation to the Sida's general objectives for development co-operation the achievements during phase I are in line with the expectations and the proposed activities during phase II can be seen as a continuation along the same lines, but adjusted to the new conditions in a growing INBio.

5.3 DBID in relation to Costa Rican policy

The present government of Costa Rica strongly emphasis the sustainable development through non-destructive utilisation of the biodiversity. The government is very clear on this policy, but still slightly vague on the mechanisms for its implementation. A lot of planning work is going on in the concerned ministries, to identify methods and processes. INBio, has contributed with back-ground data and through personal discussions between policy makers and INBio management and scientists.

Thus the INBio approach seems in line with the intentions of the government and to some extent methods developed by INBio can be used in national policies for bio-diversity utilisation. DBID has the potential to play a role in the INBio contacts with the government.

5.4 Relevance of the second phase in relation to target groups

To analyse the relevance of the DBID in relation to its users, the relation between activities and target groups were studied, see chapter 4. According to this analysis the proposal for the second phase of DBID is relevant. The target groups identified for the activities are in line with both INBio's and Sida's general priorities. The plan reflects the development of INBio and the activities suggested are adapted to the growth of the institution.

The DBID can no longer be regarded as a project and the title "flow of biodiversity information from Wildlands to society" is obsolete. According to the intentions in the proposal for the first phase of Sida support the project is in the process of grown into a full-fledged division of INBio. The division will have a broader scope than the Sida supported project, including other activities such as book distribution, preparation of biodiversity information material on CD ROM in Spanish, organisation of international workshops at INBio etc.

5.5 Planning, monitoring and evaluation routines

The collaboration between Sida and INBio during the first phase of the dissemination project has been refereed to as "hands of management". This indicates that there has been no regular contacts between INBio and local development co-operation offices in Central America. INBio has been handled directly by a programme officer at Sida headquarters in Stockholm, who has red the reports and paid occasional short visits to the institute when travelling in the region. There has been no regular planning meetings, nor lengthy missions and the Sida input in INBio planning has been negligible.

This has been an arrangement that seems to please both parties in the collaboration. Sida has spent a minimum of and INBio feel that they have been given the trust to manage the programme according to their own strategy.

The progress reports to Sida from the project, and later the division have been of very various character. Sida have given little feedback on the received reports which to some extent has created confusion at INBio regarding Sida's perception of the level and contents of the reports.

For the second phase Sida required a log-frame proposal which INBio delivered after receiving instructions on log-frame planning from Sida.

During the second phase, is suggested to maintain the "hands off" level from Sida. It is further suggested that the DBID report all its activities to Sida, not only the part that is Sida funded. This will enable Sida to follow the development of the entire division and to get an overview of funds and activities.

5.6 Gender aspects

All staff members of DBID are women, which reflects the general situation in Costa Rica, where the information sector is female dominated. INBio headquarters provides an environment with a young and, generally, well educated staff, where little prejudice against female professionals can be felt. In the contact between DBID staff and field officers, such as in contacts with park staff, "parataxonomist" etc. the difference in education and living standard seems to be more a barrier than the gender.

One of the training courses for "parataxonomist" was directed exclusively to women. The course was as popular as the course open for both sexes, but the number of dropouts among female "parataxonomist" has shown to be higher than amongst male. Thus the following courses were directed towards both men and women, and became male dominated. From a dissemination point of view, the gender mixture among "parataxonomist" is important, especially in contacts with schools and local communities. Thus it is important to maintain a gender balance in the recruitment for the courses.

6. CONCLUSIONS AND RECOMMENDATIONS

This section contains conclusions of the evaluation and appraisal, with recommendations to INBio regarding the continuation of the DBID, and to Sida regarding future support to DBID.

6.1 Recommendations to INBio

The evaluation gives the following recommendations to INBio regarding the continuation of DBID.

6.1.1 Involve INBio staff in dissemination activities.

As expressed in the future vision of INBio, every member of staff should have a role to play in dissemination work at the institute. Thus to achieve best efficiency DBID should, as strategy, focus on all supporting INBio staff in dissemination.

Among INBio staff, the "parataxonomist" have potential to play a key role in the dissemination activities. Examples show that they are very efficient in reach local communities, schools NGOs etc. Thus their participation in dissemination activities should be officially sanctioned and encouraged from INBio management and DBID should fully utilise this resource in village meetings, schools, community development groups etc.

DBID should also support other members of INBio staff in their contacts outside the institute. This can be made by providing brochures, P.A. material, an archive of slides and other illustrations etc. but more important is to facilitate outside contacts by providing inside information about all ongoing activities. As a target every

staff member should be able to explain the idea and the major activities of the institute.

The direct dissemination responsibilities of DBID could be limited to situations were information needs to be packed in a special way, as elementary school programmes, or when the media used is not accessible to everyone, as WEB publishing etc.

6.1.2 The form and content of the information should be adapted to the demands and needs of the users.

In the early INBio the role of the DBID was focused on spreading general information to create awareness. As the institute is becoming more known the demand for more specific information is growing. At the same time the increasing amount of data gathered by INBio provides a source for specialised information to be disseminate.

Thus DBID should focus on providing the information requested by prioritised users. For this purpose, the division should spend time and effort in establishing the needs perceived by he major target groups. Meetings, workshops, questionnaires and analysis of requests could be possible ways to do this.

The expansion of INBio has led to an rapidly increasing demand for information. There is an obvious risk that the DBID will be flooded with different requests and loose control of its strategies and directions in the effort to cope with all demands. Thus there is a need to "think ahead", to prioritise and identify needs of information in the selected target groups, instead of trying to fulfil all incoming requests.

6.1.3 Prioritise new user groups

It is recommended that during the second phase, more emphasis should be put on audiences in the conservation areas and in near-by communities. As shown in the above analysis of users, the first phase of DBID was very successful in reaching international community and establishing the contacts with Costa Rican general public but less successful in reaching communities near conservation areas. Thus during the second phase of Sida support DBID should focus on reaching these groups. As shown in the analysis of users, this is reflected in the log-frame for the 2nd phase.

6.1.4 Expand elementary school project

The achievements in the elementary school project are impressive and the plans for the future development of the activities in the target schools under the second phase, are clear and consistent.

The ideas of how to expand from pilot scale to a larger programme are less well developed. To involve more schools the material produced need to be printed in large editions and to implement the programme in a school, teachers need basic training in workshops. No money is allocated for the expansion in the INBio budget, MEP has very limited funds available and the schools in the country neither have budget to purchase teaching material nor to train teachers.

In line with the above discussions regarding focus in communities surrounding conservation areas, it is recommended that the expansion of the elementary education programme focus on schools close to the conservation areas. The activities in the elementary schools could be a natural starting point for other activities in the entire community. Further "parataxonomist", who are cornerstones in the education programme, are easily available there.

6.1.5 Training of trainers

The most efficient way of disseminating information is to create a network of disseminators. The involvement of INBio staff, especially the parataxonomists in dissemination is one possibility to establish such a network. Involvement of conservation area staff, teachers, community leaders etc. are other possibilities. Thus all training activities, workshops etc. should contain a communication module encouraging the participants to spread the information further. Material for P.A. and information should be produced in a way that encourage the reader to spread it further and the material should be distributed in quantities large enough for further distribution.

Follow up contacts should be arranged for participants in workshops and courses to support them in their own dissemination efforts. Such contacts could include access to update information about INBio, distribution of more material, discussion local

initiative and most important, feed-back reactions from users to the DBID.

6.1.6 Continue focus on "spiritual use"

The "spiritual use" of biodiversity is one of the objectives of INBio implemented through the DBID.

The increasing amount of available information and the establishment of a general awareness of biodiversity opens up interesting avenues for further exploitation of the "spiritual use" of biodiversity in the local communities surrounding the conservation areas. As stated above, the spiritual use (or the use of the spiritual value) has been emphasised in urban middle class communities in Costa Rica, a process that should be continued in the rural areas. This is in many ways a new concept. Thus time and resources should be allocated to the process of establishing needs, to provide information and to monitor and evaluate its use.

6.1.7 Avoid commercial distribution of publications

The DBID is, as the rest of the institute, growing rapidly. Up to last year the unit was basically funded on projects grants, with the Sida support as major source (80% for 1996). In the light of the expansion and the outspoken time-limit of the Sida support different alternatives for the financing of DBID has been discussed.

An alternatives mentioned was to finance parts the dissemination through commercial activities. The division is presently engaged is some commercial activities, such as organising externally funded international meetings and workshops, others has been suggested, such as sale of publications produced.

To distribute books and other productions in commercial scale, particularly on a retail level, is a very costly and time consuming (packing, mailing, invoicing, follow up of payments). Sale of the information products directly from INBio to individual buyers should be seen as special service for prioritised users rather than income generating activities. If productions are to be sold, it should be on a whole-sales level through a commercial publishing company.

6.2 Recommendations to Sida

Below follows the recommendations to Sida regarding future support to DBID at INBio, based on the appraisal of the proposal for phase II.

6.2.1 Continue support to INBio

Sida is recommended to grant support to the DBID for a second and last 3 year period according to the proposal for phase II presented to Sida including log-frame and budget.

The recommendation is based on the following considerations:

- the DBID is important for the development of new aspects of the utilisation of biodiversity for conservation, such as "spiritual use", elementary school programme, "parataxonomist" as extensionworkers etc.,
- the process of integrating DBID in INBio is proceeding. The importance assigned to the dissemination division in the institution is clearly indicated by the INBio management and some steps towards a full integration has been taken; parts of the DBID activities has developed into regular INBio activities and around 50% of the budget for phase II will come from other sources than Sida,
- there is still need for innovative approaches to be developed, such as the dissemination of information in communities close to the conservation,
- a continuos Sida grant would enable INBio to fully integrate DBID and still continue to develop new approaches, these approaches are well in line with Sida's intentions for the support,
- if successful the new approaches are likely to become part of the regular INBio activities, and thus funded from other sources, when a phase II of the Sida support ends after another 3 years.

6.2.2 Support the DBID, not "flow of biodiversity" project

According to INBio estimations the Sida support will cover approximately 50% of the expected expenses in DBID. The project "Flow of Biodiversity Information from Wildlands to Society" should be regarded as an integrated part of the DBID and Sida should request result report and financial statement for the entire DBID. This to enable Sida to follow the process of the integration of DBID in INBio and for DBID to strengthen the administrational integration with INBio.

Within DBID the Sida support should (according to the above recommendations to INBio) focus on the following areas:

- elementary school programme
- use of biodiversity information in the conservation areas and surrounding communities,
- internal information flow and training, to enable and encourage all staff to participate in dissemination activities.

6.2.3 Continue "hands of management"

The present level of collaboration between Sida and DBID, which by Sida, is described as "hands of management" should continue. This including ad hoc visits by programme officers from Stockholm, regular reporting on achievements and financial statements from the INBio administration seems as a level accepted by both parties.

6.2.4 Ensure flow of Information from INBio

INBio and the information available about biodiversity and its use in different contexts in society (especially aspects of "spiritual values" of biodiversity) are important for Sida (this is the entire Sida, including former SAREC) and other organisations in Sweden. Thus it is important to ensure channels for information flow and contacts outside the regular handling of the support to INBio. Such channels could be in the form of hot-links on WEB page, distribution of INBio newsletter in Sweden, networking activities etc. Organisations in Sweden, with Sida support for resource base development could also be useful channels.

6.3 Summary of recommendations

6.3.1 To INBio

The recommendation paint an overall picture of an information division, fully integrated in the INBio organisation and working less with direct dissemination of information and more trough other agents, such as INBio staff in general, "parataxonomist" in particular, teachers, community leaders etc. This is the only reasonable way to cope with the increasing need of information. The information should be more adapted to local needs, albeit still focused on the social and "spiritual" use of biodiversity. Through the dissemination process there is a growing understanding of how people in different communities see this spiritual use and how they perceive their needs.

The DBID should, in a longer perspective, be financed in the similar way as the rest of INBio, partly from trust fund returns, partly from donor funds and partly through returns from commercial agreements.

6.3.2 To Sida

Continue direct support to DBID for a period of maximum 3 years as a support directed to the entire division, with outspoken intent to develop information flow to local communities, schools and support to the involvement of all INBio staff in dissemination. Put efforts on establishing broader contacts between INBio and Sida as well as other institutions in Sweden dealing with similar issues.

ANNEX I: TOR

Sida

TERMS OF REFERENCE

Department for Natural Resources and the September 22,1996 Environment L. Bostrand

Ref. No.

Natur-1 995-0162

TERMS OF REFERENCE FOR EVALUATION AND APPRAISAL OF THE SIDA-SUPPORTED PROJECT:
"THE FLOW OF BIODIVERSITY INFORMATION FROM WILDLANDS TO SOCIETY" (FBIWS)
AT INBIO IN COSTA RICA

1.BACKGROUND

Sida has since 1990/91 supported INBio (Instituto Nacional de Biodiversidad) an independent institute in Costa Rica with the mission to save biodiversity from destruction. Initially the support aimed at the basic establishment of the INBioinstitute. The support was a non-earmarked trust fund financed through the so called debt for nature swapmechanism. For further details on the first initial support see the Evaluation Report of the Guanacaste and INBio Projects (September 1992).

During the yearly follow-up discussions between Sida and INBio, Sida emphasised the importance of making the information gathered at INBio disseminated and useful for the society, as to avoid that INBio developed towards a closed and isolated research organisation.

The evaluation (1992), confirmed the impression that INBio carried out interesting and innovative work within the field of biodiversity. As a result of the evaluation, Sida considered a continued support to the institute. The support was to be a direct and limited project-support. It should focus on outreach, and on information dissemination activities. The limited support would also provide Sida with a good opportunity to follow and learn from the work carried out at INBio

In March 1994 Sida approved support to the on-going project "The flow of biodiversity information from wildlands to society" - (FBIWS), which is now subject for evaluation.

The FBIWS-Project aims at strengthening INBio's capacity to reach different stakeholders in society with tailor made information on biodiversity, by the establishment of a new "Division for Biodiversity Information Dissemination (DBID)". The Swedish support refers on the one hand to salaries for three out of five staff-members and on the other to material and running costs for five pilot project activities. See Promemoria (1994-02-04) and the project document.

2. PURPOSE AND SCOPE OF THE EVALUATION / APPRAISAL

INBio submitted in May 1996 a proposal to Sida for a second phase of the project for another three year period.

Before taking any decision on a possible support to a phase II, Sida has decided to carry out a combined evaluation of the Project's first phase and an appraisal of the submitted proposal for the second phase. As to allow time for the evaluation/appraisal, phase I has been extended until the end of 1996.

The evaluation appraisal will be one input for Sida's decision on an eventual future support to INBio from 1997.

3. THE ASSIGNMENT

3.1 Expected outputs

The assignment is expected to result in a report containing:

- a brief description of INBio
- an evaluation of the activities supported by Sida including a summary of "lessons learnt", and
- an appraisal of the INBio proposal to Sida for a phase II of the

FBIWS-project, including recommendations both regarding the overall concept of the project and possible modifications, revisions and additions.

3.2 Issues to be covered

The evaluation shall cover all relevant aspects of the Sidasupported project over the period 1994-1996.

The evaluation/appraisal shall concentrate on, but not necessary be limited to, the following issues:

- a) Assess the *relevance and justification* of the project in relation to:
- *adequateness of the problem identification₁ particularly in relation

to major stake holders and actors,

- * Sida's objectives and strategies, including the Biodiversity Guidelines
- * national policies, strategies, and priorities
- * the overall objectives and strategies of INBio
- b) Assess the *effectiveness* of the project, i.e. has it been designed in an effective way to meet the project objectives:
- * Describe major results expected
- * Is there consistency between project objectives and means to reach them
- * Are there alternative approaches and means to reach the

objectives?

- * Risk of duplication with other initiatives?
- c) Describe and evaluate the overall results and achievements of the project so far:
- * What are the project results? Have activities been undertaken and

objective, achieved as planned. If not, explain the reasons and

comment on their validity and causes.

- * Discuss the cost-efficiency (input/costs in relation to outputs) of undertaken activities.
- * Discuss the long-term impact at various levels. Has the project contributed to achieve INBio's overall objective.
- d) Assess the social dimensions with particular attention to:

* adequateness and relevance of target groups defined,

- * how different target groups have been reached and involved,
- * perceived relevance by the target groups of the information disseminated and activities undertaken (to what extent do they consider the information appropriate and useful? to what extent do they actively seek information from INBio),
- * expected and actual benefits/effects for different target groups. The results should as far as possible be analysed from a gender perspective.
- e) Assess the feasibility and sustainability of the project:
- Describe and assess the organisational set up and the *institutional, and technical feasibility* of the project, including:
- * analysis of major stake holders and actors, and their interest in the

project

- * institutional set-up and management capacity
- * major risks and "killing factors"
- Assess the economic sustainability, including role, volume and type of external assistance and support form other donors.
- Assess the *long-term sustainability*, and to what extent activities and/or achievements can be expected to continue without external support.
- f) Assess the *planning, monitoring and reporting* routines:
- * Assess the financial and activity reporting to Sida and other donors
- * Discuss the *roles* of Sida and INBio and the so called "hands off control" applied by Sida.
- 4.METHODOLOGY, MISSION TEAM AND TIME SCHEDULE

The evaluation/appraisal shall include an analysis of relevant documents produced by INBio.

It shall include interviews with: INBio staff from relevant Divisions; Sida programme officers; consultants involved in the follow up of the project; and other stakeholders in Costa Rica outside INBio e.g. representatives from universities, primary- and high schools, ministries (environment, education, tourism).

The evaluation shall include a field study and include visits to at least one of the Conservation Areas, including interviews with representatives of the management, staff, and users/local communities.

The evaluation shall be carried out by one international consultant, with the competence to cover relevant aspects such as natural resources and biodiversity, extension, information dissemination, research, development policy. The consultant should be acquainted with Sida development policies and objectives in general as well as for the sector.

The evaluation shall take place during three weeks in September 1996, of which two are spent in Costa Rica.

5.REPORTING

Findings, conclusions and recommendations shall be presented at

INBio for representatives from INBio and Sida on Friday 13 September.

The evaluation report shall be written in English and should not exceed 40 pages, excluding annexes. The outline of the report shall follow Sida Evaluation Report - a Standardised Format (see Annex 3, p 71 of Evaluation Manual for SIDA). Two copies of the draft

report shall be submitted to Sida no later than September 30,1996.

Within three weeks after receiving Sida's comments on the draft report, a final version in four copies and on diskette shall be submitted to Sida. Subject to decision by Sida, the report will be published and distributed as a publication within the Sida Evaluations series. The evaluation report shall be written in WP 6.1 for Windows or a compatible format and

should be presented in a way that enables publication without further editing.

The evaluation assignment includes production of a summary according to the guidelines for Sida Evaluations Newsletter (Annex1) and the completion of Sida Evaluations Data Work Sheet (Annex 2). The separate summary and a completed Data Work Sheet shall be submitted to Sida along with the draft report.

ANNEX II ; ITINERARY AND PEOPLE MET

SiteVisit Program to INBio MR. BJORN HANSSON SIDA Consultant

SUNDAY, SEPT. 1, 1996

Arrival to San Jose Hotel Bougainvillea - Santo Domingo

MONDAY, SEPT. 2, 1996

INBio

Elvira Sancho, Information Dissemination Co-ordinator Introduction to INBio's mission and main processes

TUESDAY, SEPT. 3, 1996

INBio

Elvira Sancho

The Biodiversity Information Dissemination Division: Processes, strategic relations and future perspectives, SIDA's present and future contribution to the Division's goals Divisional meeting

WEDNESDAY, SEPT. 4, 1996

Natalia Zamora, Communications Expert

Departure to the Guanacaste Conservation Area for a two-day Environmental Interpretation Workshop with a group of parataxonomists Overnight in Santa Rosa National Park

THURSDAY, SEPT. 5, 1996

Natalia Zamora

Zobeida Fuentes, Parataxonomist

Departure to the San Luis de Monteverde community to learn about a parataxonomist biodiversity information dissemination experience with community elementary schools

Overnight in Monteverde

FRIDAY, SEPT. 6, 1996

Natalia Zamora Departure to INBio Nicolas Mateo, Biodiversity Prospecting Co-ordinator

Discuss INBio's present and future links with the agricultural sector, as well as the development of new products

Sandra Rodriguez, Biodiversity Information Specialist

Present and potential electronic channels for disseminating biodiversity knowledge

INBio's efforts in enhancing the Biodiversity Contact Database

Carlos Manuel Rodriguez, MINAE

Learn about the general legal framework that affect INBio's activities.

SATURDAY, SEPT. 7, 1996

Transfer to Guanacaste Overnight in Santa Rosa National Park

SUNDAY SEPT. 8, 1996

ATBI Social Workshop with the Community of Quebrada Grande

MONDAY, SEPT. 9 1996

INBio

Sonia Rojas, Biodiversity Education Program

Conceptual analysis, objectives and expected outputs of INBio's Biodiversity Education Pilot Project - PROEBI Strategic alliance with the Ministry of Public Education

Fundacion Omar Dengo

Fressie Aguilar, Manager - Kiosco de Informacion

External opinion of INBio-MEP's joint initiatives for disseminating biodiversity information to local schools, through MEP's Kiosco de Informacion Service

Jose Miguel Molina, General Manager- MEP's Environmental Education Office Discuss present and potential joint activities of the Env. Education Office and 'INBio (teachers training)

Division meeting DBID

TUESDAY, SEPT. 10, 1996

INBio

Lucia Chaverri, Biodiversity Education Program

Quirico Jimenez, Botanist

Reinaldo Aguilar, Parataxonomist
"Parataxonomist for a day": Biodiversity education

laboratory session with children from Escuela Ruben Dario

<u>Carlos Manuel Rodriguez</u>, MINAE, National Conservation Policy

Rodrigo Gamez, General Director

The Bioliteracy Program within INBio' 5 development

WEDNESDAY, SEPT. 11,1996

Departure to Brauho Carrillo National Park Sonia Rojas & Lucia Chaverri, Biodiversity Education Program One-day field trip - Escuela Ruben Dario

THURSDAY 8

Visit to the Escuela Ruben Dario Sonia Rojas, Biodiversity Education Program Interview the Principal and teachers currently involved in PROEBI's activities

Lucia Chaverri, Biodiversity Education Program Sixth-graders from Escuela La Guacima visiting INBio as a complementary activity to their official program

Alfio Piva, Deputy Director INBio's political and interinstutional projections

Biodiversity Information Dissemination Team Wrap-up session to discuss any aspect that may need further analysis.

FRIDAY, SEPT. 13, 1996

INBio

Lisbet Bostrand & Lasse Krantz, SIDA officers

Rolain Borel, consultant

Biodiversity Information Dissemination Team General meeting to discuss Mr.

Hansson's findings on the INBio - SIDA Project

ANNEX III. STAFF PROFILE & PUBLICATIONS

PROFILE OF DBID'S PERSONNEL

Natalia Zamora Communicator, with postgraduate studies in Environmental Interpretation. Started working for INBio in September 1995 to serve as a "User cultivator". Current activities include the design of innovative approaches to different biodiversity information users; the generation and dissemination of written institutional documents (annual reports, bulletins, etc); the organisation and execution of env. interpretation workshops for parataxonomists; co-ordinating actions between INBio personnel and the media and special visitors.

Sandra Rodriguez Communicator, with postgraduate studies in Natural Resources Management. Started working for INBio in July, 1996. Her current activities complement those carried out by Ms. Zamora, but emphasises in the development and implementation of the institutional Relationships Network (Databases) and the design of INBio's Image Strategy (both domestic and international).

Sonia Rojas Biologist, with experience in teaching. Since August 1995, Mrs. Rojas has conducted the Institutional Biodiversity Education Program. Current activities include future planning of the education program; strengthening the links with the Ministry of Education (at all levels), local schools Principals and teachers; designing didactic materials; receiving local communities students.

Lucia Chaverri Elementary School teacher, with postgraduate studies in bibliotecology. Started with INBio in July 1996. Currently receiving elementary schools students at INBio; designing didactic materials; conducting special activities for students (half-a-day workshops, field trips, etc.).

Elvira Sancho Graduated in the field of International Affairs, with postgraduate studies in that same area (emphasis given to International Co-operation). Worked for INBio since Nov.1990, she conducted many of the above mentioned activities until 1995. Currently exercising the co-ordination of the DBID Division with activities that include future planning of the division; co-ordinating and establishing priorities among the team; searching for new sources of funding; promoting activities with

the Conservation Areas; co-ordinating processes with other institutional divisions and the Direction General; managing budgetary aspects for the Division.

Annie Lovejoy With graduate studies in Latin American History, Ms. Lovejoy volunteered at INBio for over two years. She is currently assisting Ms. Sancho in the processes of International Workshops and Seminars, Publications and Ecoturism. Her skills in written and oral English are highly appreciated by the Director General and other Division's co-ordinators (writing, editorial and translation support). She also assists Ms. Zamora and Rodriguez in the processes of Institutional Image and Public Relations.

PUBLICATIONS CO-ORDINATED BY DBID

Prospección de la Biodiversidad: 1994, 1500 copies

Arboles Maderables en Peligro de Extinción en Costa Rica: 1993 (second edition in 1994). 1500 copies

La biodiversidad de Costa Rica: lecturas para ecoturistas; 1995 (second edition in press). 1000 copies

Proceeding of the Workshop: "Institutional Development for Biodiversity Management: INBio's Pilot Project in Costa Rica" (For Central and South America). February 1995, 500 copies

Proceeding of the Workshop: "A Practical Workshop on Biodiversity Prospecting for Cameroon, Madagascar and Ghana". August 1995.200 copies

Proceeding of the Workshop: "Building Institutions for Biodiversity Management: INBio's Pilot Project in Costa Rica" (For the English-speaking Caribbean region). January 1996.250 copies

Proceeding of the Workshop: "<u>Taller Regional Biodiversidad y Desarrollo</u>: BIODES". February 1996.200 copies

Proceeding of the Workshop: "Biodiversidad y Educación: En busca de la armonía entre la humanidad y el ambiente". February 1995. 100 copies

<u>Fabulas del bosque Tropical</u>. 1996 (Joint project with Universidad de Oviedo -sponsored by Theria). 8000 copies

Annual Reports: 1989-90; 1991; 1992; 1993; 1994; 1995.

In press:

Guía de Aves de Costa Rica; 1996 (October). 2500 copies

Guía de las mariposas Heliconias de Costa Rica; 1996 (October). 1500 copies

Guía de Arboles de Cabo Blanco. 1996 (November). 1500 copies

Sida Evaluations - 1996/97

96/40	Curriculum Development in Ethiopia, A Consultancy Study for the Ministry of Education in Ethiopia and for Sida. Mikael Palme, Wiggo Kilborn, Christopher Stroud, Oleg Popov Department for Democracy and Social Development				
96/41	Sida Support to Environmental Public Awareness and Training Projects through The Panos Institute, Gemini News Service and Television Trust for the Environment. Leo Kenny, Alice Petren				
	Department for Democracy and Social Development				
96/42	Concessionary Credits in Support of Economic Development in Zimbabwe. Karlis Goppers Department for Infrastructure and Economic Cooperation				
96/43	Botswana Road Safety Improvement Projects. Rob Davey Department for Infrastructure and Economic Cooperation				
96/44	Programa de Estudo Pos Draduacao - PEP Guinea Bissau 1992-1996. Roy Carr Hill, Ahmed Dawalbeit				
	Department for Democracy and Social Development				
96/45	Capacity Building and Networking, A meta-evaluation of African regional research networks. Jerker Carlsson, Lennart Wolgemuth Department for Evaluation and Internal Audit				
96/46	Support to the Maritime Sector in Lithuania. Nils Bruzelius Department for Central and Eastern Europe				
96/47	Local Development Programme in Nicaragua, PRODEL. Irene Vance, Jorge Vargas Department for Infrastructure and Economic Development				
96/48	The Planta Nicaragua Rehabilitation Programme. Consulting Services. Judith Muller, Per-Johan Svenningsson				
	Department for Infrastructure and Economic Development				
96/49	Sida Support to the International Institute for Educational Planning, IIEP. Peter Williams, Lees Maxey Department for Democracy and Social Development				
96/50	The Human Factor. Cooperation in Public Administration between Sweden and Mongolia. Lennart Peck, Marianne Hultberg Department for Infrastructure and Economic Cooperation				
97/1	Swedish Consultancy Trust Funds with the African Development Bank. Karlis Goppers, Sven Öhlund Department for Infrastructure and Economic Cooperation				
97/2	Programa de Vivienda Social de FUPROVI, Costa Rica. Lillemor Andersson-Brolin, Bauricio Silva				
	Department for Infrastructure and Economic Cooperation				
97/3	Sida's Assistance to the Environment Protection Training and Research Institute, EPTRI, India. Bo Lundberg, Bo Carlsson, K P Nyati Department for Natural Resources and the Environment				
97/4	Environment & Land Management Sector Activities, ELMS 1991-1995, Southern African Development Community, SADC Department for Natural Resources and the Environment				
97/5	Labour Construction Unit, LCU - Lesotho, 1997-1996. David Stiedl Department for Infrastructure and Economic Cooperation				

97/6	Sida's Support to the Start East Programme. Cecilia Karlstedt, Sven Hilding, Piotr Gryko Department for Central and Eastern Europe
97/7	Sida's Cultural Support to Namibia, 1991-1996. Dorian Haarhoff Department for Democracy and Social Development
97/8	Sida-SAREC's Support to the International Centre for Theoretical Physics. Olle Edqvist, John S Nkoma Department for Research Cooperation, SAREC

Sida Evaluations may be ordered from:

Biståndsforum, Sida S-105 25 Stockholm Phone: (+46) 8 698 5722 Fax: (+46) 8 698 5638 A complete backlist of earlier evaluation reports may be ordered from;

Sida, UTV, S-105 25 Stockholm Phone: (+46) 8 698 5133 Fax: (+46) 8 698 5610



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