

c. The provision of these incentives only have in-kind costs and income that the Government would forego.

Estimate of in-kind cost to provide access to land and financing	\$ 2,000
Estimated income Government would forego	\$ 1,000

Total	\$ 3,000/yr
--------------	--------------------

4.4.24. Objective: To promote research on the conservation and use of medicinal plants.

Actions:

a. This exercise is not expected to incur any cost in addition to those incurred in section (d) below.

Total	000
--------------	------------

b. This will require one (1) consultant for 6 months (i.e. 120 days).

One (1) consultant for 120 days @ \$ 125/day	\$ 15,000
--	-----------

Total	\$ 15,000
--------------	------------------

c. Ongoing research is required as part of this activity.

One (1) senior researcher @ \$15,000/yr	\$ 15,000
---	-----------

One (1) senior technician @ \$10,000/yr	\$ 10,000
---	-----------

2 laborers @ \$ 3,500 ea.	\$ 7,000
---------------------------	----------

Mileage and subsistence	\$ 5,000
-------------------------	----------

Materials and supplies	\$ 5,000
------------------------	----------

Total	\$ 42,000/yr
--------------	---------------------

d. At already established laboratory facilities at the New York Botanical Gardens (NYBG) and other research institutions, it is estimated that it will cost about \$ 10,000 to determine one active ingredient (a.i.) in a plant. It should be possible to characterize at least one a.i. in 10 different plants on an annual basis.

Determining 10 a.i. per year @ \$ 10,000/a.i.	\$ 100,000
---	------------

Total	\$ 100,000
--------------	-------------------

4.4.25. Objective: To provide incentives for the private sector in the management of medicinal plants.

Actions:

a. This activity is not expected to have any direct cost but will result in a loss of revenue to the Government.

Estimated loss of revenue to the Government	\$ 1,000/yr
---	-------------

Total	\$ 1,000/yr
--------------	--------------------

b. To work out the mechanisms for this activity will require the services or the equivalent of one (1) consultant for 30 days @ 125/day.

One (1) consultant for 30 days @ 125/day	\$ 3,750
--	----------

Total	\$ 3,750
--------------	-----------------

4.4.26. Objective: To modernize the medicinal plant sub-sector.

Actions:

a. Developing and monitoring quality standards for medicinal plants will require an initial investment to set the

standards followed by recurrent expenditure to monitor the standards.

Capital costs

One (1) consultant for 30 days to develop the standards @ \$125/day.	\$ 3,750
--	----------

Recurrent costs

One (1) technician @ \$6,000/yr	\$ 6,000
Transportation @ \$1,000/yr	\$ 1,000

Total	\$ 7,000
--------------	-----------------

b. This activity will be achieved by the incentives created and the training undertaken. It is not anticipated to have any direct cost but an equivalent value of one (1) consultant for 10 days is assigned.

Equivalent of one (1) consultant for 10 days @ \$125/day	\$ 1,250
--	----------

Total	\$ 1,250
--------------	-----------------

c. Integrating medicinal plants into our primary health care system is a decision making process and will require consultation with medical doctors, nurses and community health care workers. A consultant to facilitate the consultations and work out the mechanism for integrating the use of medicinal plants into primary health care will need to be employed.

One consultant for 60 days @ \$125/day	\$ 7,500
10 consultations @ \$1,250/consultation	\$ 12,500

Total	\$ 20,000
--------------	------------------

4.5 COMMUNITY PARTICIPATION (Article 10)

A. Environmental and Land Use Planning

4.5.1. Objective: To increase the role of communities in the development, implementation and compliance monitoring of plans.

Actions:

a. Consultant to be hired for six to research and design models. Relevant government agency to implement pilot project and refine models. Legal consultant to be hired for two months after model refinement to draft legal documents for their adoption. Proposal to be developed to launch the implementation of the models for the first two years.

Planning consultant for six months @ \$8,000	\$ 48,000
Implementation of pilot project	\$ 50,000
Legal consultant for two months @ \$8,000	\$ 16,000
Eight Community/interest groups consultations @ \$3,000	\$ 24,000
Proposal development	\$ 10,000

Total **\$148,000**

b. Cost to conduct pilot project on model for cooperative plan implementation and compliance monitoring at local level

\$ 20,000

Total **\$ 20,000**

c. DOE to define approaches and use funding to implement strategies.

For implementing local involvement strategies \$ 20,000

Total **\$ 20,000**

d. Consultant to be hired for four months to draft strategy and legal amendments as required to implement strategy. Process should consult with communities and relevant government enforcement departments.

Four month consultancy @ \$8,000 \$ 32,000
Four consultations @ \$3,000 \$ 12,000

Total **\$ 44,000**

4.5.2. Objective: Increase public awareness and capacity to absorb their role in the development, implementation and compliance monitoring of plans for the management of biological resources.

Actions:

a. Consultant to be hired for four months to design and supervise training program for groups of thirty. Consultant also to develop mechanisms for the training program to be continued. Other consultants or government personnel to be contracted to give lectures for the training program.

Four month consultancy @ 8,000	\$ 32,000
12 lecture hours @ 400/hr	\$ 4,800
Training Materials	\$ 5,000

Total **\$ 41,800 1st training;**
\$ 17,800 for subsequent training

b. Consultant to be hired for twelve months to collect and organize information in consultation with local communities. Consultant also to establish the information centers within existing facilities e.g.

Libraries/schools, including strategies for their continued operation and sustainability.

Twelve month consultancy @ \$8,000	\$ 96,000
Infrastructural improvements for center	\$ 20,000
Community consultations	\$ 15,000

Total **\$131,000/site**

c. This activity to be conducted by the existing personnel at the Ministry of Human Resources, Women and Youth.

Total **\$ 10,000 workshop/site**

B. Fisheries, Coastal and Marine Resources

4.5.3. Objective: To develop workable mechanisms so as to maximize public consultation and community participation in coastal and marine biodiversity management.

Actions:

a. Public consultations in the six districts and on the two major cayes on the feasibility of a 'Community Clearing House Mechanism'.

Eight public consultations @ \$3,000	\$ 24,000
--------------------------------------	-----------

Total **\$ 24,000**

b. A consultant to be hired for three months to develop a system to promote voluntary compliance and incentives for community participation in biodiversity management.

Three months consultancy @ \$8,000	\$ 24,000
------------------------------------	-----------

Total **\$ 24,000**

c. A consultant to be hired for four months to develop a system to promote community co-management of Marine Protected Areas. At least four public consultations focused at conflict resolution will be necessary.

Four months consultancy @ \$8,000	\$ 32,000
Four public consultations @ \$3,000	\$ 12,000

Total **\$ 44,000**

C. Forest and Wildlife Management

4.5.4. Objective: To build on existing co-management initiatives of Protected Areas and Forest Reserves.

Actions:

a. Allocation to cover 3 regional workshops with a view to identify relevant communities to get commitment.

Total **\$ 12,000**

b. Allocation to cover 3 regional workshops with a view to identify relevant communities to get commitment.

Total **\$ 12,000**

4.5.5. Objectives: To maximize community involvement in the formulation of policies and laws, in the appraisal of Forest Licenses, and in the establishment of Protect Areas.

Actions:

a. To cover incidental expenses involved in this activity.

Total **\$ 2,000**

b. Allocation to cover cost of demarcation of commercial area around villages, allocation per year on a schedule to be worked out.

Total **\$ 30,000/yr**

4.5.6. Objective: To form CBOs to assist in the detection of potential that may arise from forest activities.

Actions:

a. Allocation to cover cost of one central workshop including transporting youth group representatives.

Total **\$ 7,000**

b. Allocation to cover one workshop per district to get inputs into this activity.

Total **\$ 24,000**

c. Allocation to cover one workshop per district to carry out this activity.

Total **\$ 24,000**

4.5.7. Objective: To implement community-based projects and monitoring programmes in forestry and wildlife.

Actions:

a. To cover the cost of carrying on 6 consultations.

Total **\$ 24,000**

b. Allocation to cover projects limited to \$50,000 per district.

Total **\$300,000**

D. Medicinal Plants

4.5.8. Objective: To institutionalize the involvement of traditional healers, community groups and the Private Sector in the management and use of medicinal plants.

Actions

a. Conducting at least 4 consultations per year with traditional healers and the general public on medicinal plant issues.

Four (4) consultations per year @ \$1,250/consultation **\$ 5,000**

Total **\$ 5,000**

b. To work out the mechanisms for the conduct of public consultations, a short term consultant will need to be hired and one (1) consultation will be held to get ideas from the traditional healers, NGOs, government personnel and the general public.

One (1) consultant for 5 days@\$125/day **\$ 625**

One (1) consultation @ \$1,250/consultation **\$ 1,250**

Total **\$ 1,875**

c. This activity simply requires making the decision to include traditional healers when these negotiations are being held and has no direct cost.

d. The co-management plan (for Terranova) between the Ministry of Natural Resources and the Environment and BEST has been prepared and is now ready for signing. A public signing ceremony only is needed.

Estimated cost of signing the co-management plan **\$ 500**

Total **\$ 500**

E. Legal and Policy Framework

4.5.9. Objective: To develop a legislative and institutional framework for the involvement of communities and NGOs in the management of Protected Areas and national lands.

Actions:

a. Consultancy for 20 days to draft guidelines **\$ 8,000**
Six Workshops **\$ 18,000**

Total **\$ 24,000**

b. Conduct 12 consultations (\$3,000 each) with stakeholders and community at large to discuss draft guidelines. **\$ 36,000**

Total **\$ 36,000**

4.6. EDUCATION AND PUBLIC AWARENESS (Article 13)

A. Environmental and Land Use Planning

4.6.1. Objective: To increase appreciation for the value of planning and biodiversity conservation to the quality of life to all sectors of society.

Actions:

a. One District campaign **\$ 50,000**

Total **\$ 50,000/district**

B. Fisheries, Coastal and Marine Resources

4.6.2. Objective: To increase public awareness and knowledge of society at large on the value, conservation, and sustainable use of coastal and marine biodiversity.

Actions:

a. To develop spots for radio, television, and printed media that will highlight the importance of terrestrial, coastal and marine biodiversity and the need to conserve it. **\$ 75,000/yr**

Total **\$ 375,000**

b. Educate the general public on natural resource laws and policies and the rationale for them. **\$ 75,000/yr**

Total **\$ 375,000**

4.6.3. Objective: To strengthen the capacity of educators at all levels to teach biodiversity conservation.

Actions:

a. Develop 3 regional workshops (\$15,000 each) of 5 days duration to strengthen the capacity of educators at all levels to teach biodiversity conservation. **\$ 45,000/yr**

Total **\$225,000**

C. Agriculture

4.6.4. Objective: To educate consumers on the benefits of organically produced foods and the link between organic agriculture and biodiversity conservation.

Actions:

a. Prepare articles for newspapers **\$ 15,000**
1 person month @ \$4,000 per month **\$ 4,000**
Contribution to cost of publishing **\$ 5,000**

Total **\$ 24,000**

b. Contact wholesalers <\$15,000
2 person months @ \$4,000 per month **\$ 8,000**
Travel and subsistence **\$ 1,000**
Promotional materials **\$ 2,000**

Total **\$ 11,000**

4.6.5. Objective: To educate farmers in environmentally friendly farming techniques.

Actions:

a. Prepare information materials \$50,000
3 person months @ \$4,000 per month **\$ 12,000**
Printing of pamphlets - 40,000 @ \$400 per 1,000 **\$ 16,000**
Preparation of videos - 4 @ \$5,000 each **\$ 20,000**
Copying of videos - 10 copies each of 4 @ \$30 **\$ 1,200**

Total **\$ 49,200**

b. Identify farmers \$10,000
1 person month @ \$4,000 per month **\$ 4,000**
Review and final selection (team effort) including transportation & subsistence **\$ 6,000**

Total **\$ 10,000**

c. Radio programming \$50,000 / yr
6 person months per year @ \$4,000 per month **\$ 24,000**
Travel, subsistence, studio time, materials etc **\$ 26,000**

Total **\$ 50,000**

d. Workshops for target groups

Cost of one day workshop for 80 - 150 persons - \$7,500 including cost of transportation, meals, hiring of facilities, travel & subsistence for workshop coordinator and presenters

A) 24 workshops	\$180,000
B) 18 workshops	\$135,000
C) 12 workshops	\$ 90,000
D) 12 workshops	\$ 90,000
E) 30 workshops	\$225,000
Total	\$720,000

4.6.6. Objective: To educate farmers in the techniques and opportunities for propagating and cultivating Non-Timber Forest Products.

Actions:

a. Workshops for target groups	\$ 90,000
12 one day workshops for 80 - 150 persons @ \$7,500	
Total	\$ 90,000

4.6.7. Objective: To increase the emphasis in school curricula on agriculture, its importance to the economy of Belize, its impact on the environment and the opportunities for employment in the sector.

Actions:

a. Revision of school curricula:

5 person months @ \$4,000 per month	\$ 20,000
Printing and distribution of materials	\$ 30,000
Total	\$ 50,000

b. Workshops for teachers:

18 one day workshops @ \$5,000 per workshop
(2 each in CZL, OW, Cayo, SC, Tol, BZ City, BZ rural plus San Pedro for Primary school teachers;
3 regional one day workshops for Secondary School teachers)

Total	\$ 90,000
--------------	------------------

c. Revise curriculums:

4 person months @ \$4,000 per month	\$ 16,000
Printing of materials	\$ 9,000
Total	\$ 25,000

D. Tourism

4.6.8. Objective: to educate civil society on the importance and relevance of biodiversity conservation to the tourism industry and the economy of Belize.

Actions:

a. Prepare information materials:

3 person months @ \$4,000 per month	\$ 12,000
Printing of pamphlets - 40,000 @ \$400 per 1,000	\$ 16,000

Preparation of videos - 4 @ \$5,000 each	\$ 20,000
Copying of videos - 10 copies each of 4 @ \$30	\$ 1,200
Total	\$ 49,200

b. Prepare materials for school curriculums:	
5 person months @ \$4,000 per month	\$ 20,000
Printing and distribution of materials	\$ 20,000
Total	\$ 40,000

4.6.9. Objective: To promote marketing of tourism, emphasizing biodiversity.

Actions:

a. Prepare information materials	
6 person months @ \$4,000 per month	\$ 24,000
Printing of pamphlets - 100,000 @ \$400 per 1,000	\$ 40,000
Preparation of videos - 6 @ \$5,000 each	\$ 30,000
Copying of videos -	\$ 6,000
Total	\$100,000

E. Medicinal Plants

4.6.10. Objective: To preserve knowledge on the use and management of medicinal plants and to strengthen the culture of traditional healing through formal education.

Actions:

a. One Consultant for 20 days @ \$125/day.	\$ 2,500
6 consultations (i.e. one per district @ \$ 1,250 per consultation).	\$ 7,500
Materials and Supplies	\$ 500
Total	\$ 10,500

b. Expand the presentations from about 10 per year to 25 per year during the next five years.	
25 special presentations per year @ \$ 100.00 per presentation	\$ 2,500/yr
Total	\$ 2,500/yr

c. 30 field trips are organized to the Rainforest Medicine trail at Ixchel Farm. It is projected that the number of field trips be doubled in the next 5 years.	
60 field trips @ \$ 250/trip.	\$ 15,000/yr
Total	\$ 15,000/yr

d. Presently six schools in the San Ignacio/Santa Elena area are involved in a competition organized by Ixchel Tropical Research Foundation and the Traditional Healers Foundation. It is projected that the programme be expanded to 3 districts with at least 6 schools participating in per district.	
3 district competitions per year on activities involving medicinal plants @ \$ 5,000/district	\$ 15,000/yr
Total	\$ 15,000/yr

e. At least 2 students to study natural healing over the next 5 years.

2 students for 5 years of study @ \$ 15,000/year	\$ 30,000/yr
Total	\$ 30,000/yr
f. No direct cost, only in-kind costs equivalent to one Consultant for 5 days per year.	
Equivalent of one consultant for 5 days @ \$ 200/day	\$ 1,000/yr
Total	\$ 1,000/yr
g. Conduct 1 training session per year for 10 students for 3 months @ \$ 2,500 per training	
	\$ 2,500/yr
Total	\$ 2,500/yr

4.6.11. Objection: To improve the general public's awareness and knowledge on the use of plants as medicine.

Actions:

a. Maintain 3 hours per week for special presentations on radio, 1 article per month for the newspapers, and 2 documentaries per year.

3 hours per week on one radio station @ \$ 150.00/hr	\$ 450
2 documentaries/yr. @ \$500/documentary	\$ 1,000
1 article per month in the newspapers @ \$90 per article.	\$ 1,080/yr
Total	\$ 2,530/yr

b. 2 exhibits/district/year @ \$ 500 per exhibit participated in.

	\$ 6,000/yr
Total	\$ 6,000

c. 2 newsletters 4 issues a year @ \$ 500/issue published

	\$ 4,000/yr
Publishing reports, pamphlets etc. @ \$ 1,000/yr.	\$ 1,000/yr
Total	\$ 5,000/yr

d. 1 series of stamps @ 2,000/series

	\$ 2,000
--	----------

4.7. INSTITUTIONAL COLLABORATION AND COORDINATION (NATIONAL, REGIONAL, AND INTERNATIONAL) (Article 17 and Article 18)

A. Environmental and Land Use Planning

4.7.1. Objective: To establish tighter integration between the Physical Planning Unit and the Geographical Information System (GIS) Section of the Land Information Center LIC).

Actions:

a. This activity will use existing human resource at the Ministry of Natural Resources and the Environment.

4.7.2. Objective: To develop mechanisms for inter-agency coordination and collaboration.

Actions:

a. N/A. No additional expenses required.

b. N/A. No additional expenses required.

B. Fisheries, Coastal and Marine Resources

4.7.3. Objective: To strengthen collaboration with countries that have similar biological and cultural resources, to exchange experiences on approaches to management, implementation constraints and successes.

Actions:

a. Broaden the Technical Cooperation Programme with Mexico will require at least one diplomatic meeting and at least three technical meetings.

Four meetings abroad with a Belize delegation of three people @ 20,000 \$ 80,000

Total \$ 80,000

b. A maximum of four technical workshops with experts from neighboring countries

Four workshops per year @20,000 \$ 80,000/yr

Total \$ 80,000/yr

c. At least one diplomatic meeting followed by at least two technical meetings will be necessary to initiate cooperative work on transformer pollution.

Three meetings abroad with a Belize delegation of three people @ \$20,000 \$ 60,000

Total \$ 60,000

d. At least one diplomatic meeting followed by at least four technical meetings to discuss possible ways of technology transfer, training and access to infrastructure.

Five meetings abroad with a Belize delegation of three people @ \$20,000 \$100,000

Total \$100,000

C. Forest and Wildlife Management

4.7.4. Objective: To continue and expand collaboration with local and foreign institutions to conduct research on forest and wildlife resources.

Actions:

a. Collaboration with various partners as contained in action plan \$ 55,000/yr

Total \$275,000

b. Strengthening collaboration with Mexico and Guatemala to address monitoring and relocation of persons intruding Protect Areas.

\$ 26,500/yr

Total \$133,000

c. Increase technical meetings with personnel from Mexico and Guatemala on forestry and wildlife issues of mutual interests for 3 years during the 5 year period.

\$200,000/yr

Total **\$600,000**

D. Agriculture

4.7.5. Objective: To improve collaboration with international research and development organizations in the agriculture sector, to improve efficiency of production and to diversify agricultural production.

Actions:

a. International travel, subsistence etc for staff to attend meetings, conferences & visits to research centers.
annual budget **\$ 50,000**

Total **\$ 50,000/yr**

4.7.6. Objective: To increase collaboration with existing seed and gene banks in other countries.

Actions:

a. The establishment of closer links with international seed and gene banks will be conducted by the Ministry of Agriculture in its routine international coordination programmes; this does not require additional expense.

Total **000**

b. The collection and supply of material to appropriate international seed and gene bank will be conducted by the Ministry of Agriculture at an estimated cost of \$10,000 per annum; the Extension Service will have the responsibility for this programme.

Total **\$ 50,000**

D. Tourism

4.7.7. Objective: To strengthen and participate fully in regional tourism development, promotion and marketing programmes.

Actions:

a. Strengthen collaboration in regional tourism:
Travel & subsistence to attend regional organization meetings etc
Contributions to regional initiatives and organizations

Total **\$250,000 /yr**

E. Medicinal Plants

4.7.8. Objective: To strengthen institutional and cross-sectoral collaboration to conserve medicinal plants.

Actions:

a. The equivalence of 1 local Consultant holding 2 sessions per year with one (1) traditional healers group in each of the 6 districts and providing 8 additional days of assistance.

20 days @ \$ 125/day **\$ 2,500/yr**

Total **\$ 2,500/yr**

b. Each district association meeting with 1 other district association each year.

6 district interactions per @ \$750/ per interaction **\$ 4,500/yr**

Total	\$ 4,500/yr
c. Annual recurrent cost of maintaining a national traditional healers association	\$ 10,000/yr
Total	\$ 10,000/yr

d. A National Biodiversity Institute will require need to start with a headquarters, personnel, materials and supplies. It is expected that this organization will grow rapidly once it is established and budgetary inputs may increase significantly beyond the figures indicated here.

Startup capital (excluding a building initially and including a vehicle)	\$ 50,000
<u>Recurrent costs</u>	
Director	\$ 15,000
Ancillary staff - 1 secretary plus 2 technicians @ \$ 6,000 ea.	\$ 18,000
Materials and supplies	\$ 15,000
Service & Repairs	\$ 5,000
Total Recurrent costs	\$ 53,000/yr

e. The equivalence of 1 local Consultant for 10 days @ \$ 125/day	\$ 1,250
Total	\$ 1,250

4.7.9. Objective: To participate in regional initiatives and strengthen collaboration with international organizations involved with the management and conservation of medicinal plants.

Actions:

a. One person to participate in 1 TRAMIL workshop or conference per year @ \$ 2,500 per workshop/conference	\$ 2,500/yr
Total	\$ 12,500

b. Strengthened collaboration will require at least one visit by a Belizean to the New York Botanical Garden (NYBG) and for staff members from the NYBG to visit Belize at least once per year to meet with Belizean collaborators.

2 visits one abroad and one to Belize to hold meetings @ \$2,500/trip	\$ 5,000/yr
Total	\$ 5,000/yr

c. Participation in the development and conduct of joint research programmes will require structured input from local participants. For each international agency doing research in Belize, there will be the need for at least 3 technical meetings per year held locally.

3 technical meetings with 2 international research agencies @ \$ 750 ea.	\$ 2,250/yr
Total	\$ 2,250/yr

F. Legal and Policy Framework

4.7.10 Objective: To build coordination mechanisms between all agencies involved in Protected Areas management.

Action:

- a. Allocation to cover workshops to develop communities based on consultation with relevant ministries.

Total **\$ 12,000**

- b. Allocation to cover 3 workshops on collaboration and conflict resolution, and cost of getting trained persons to hold the workshops.

Total **\$ 12,000**

4.8. INFORMATION MANAGEMENT (Article 12, Article 17 and Article 18)

A. Environmental and Land Use Planning

- 4.8.1. Objective: To ensure the timely organization and distribution of information to assist in the planning and management of biological resources.

- a. Consultant to be hired for four months to work closely with Central Statistics Office (SO), Land Information Center (LIC), Wildlife Conservation Society, and Physical Planning-MNR, to organize data for GIS integration.
Four month consultancy @ \$8,000

\$ 32,000

Total **\$ 32,000**

- b. Consultant to be hired to work along with the LIC and Physical Planning-MNR for six months to develop database for distribution.

Six month consultancy @ \$8,000

\$ 48,000

Total **\$ 48,000**

B. Information and Geographical Information System (GIS)

- 4.8.2. Objective: Improve the development of the CADS as a central clearinghouse for information relating to biological resource management.

Actions:

- a. This can be done by a policy decision under the CADS.

- b. A consultant to draft proposal with guidance and input from CADS and the people involved with the National Biodiversity Monitoring Program (NBCP).

Proposal writing

\$ 10,000

Total **\$ 10,000**

- c. A consultant to be hired for five months. Consultant should consult with all members of CADS and other interested groups.

Five month consultancy @ \$8,000

\$ 40,000

Total **\$ 40,000**

- d. Consultant with expertise in financial planning to be hired for five months to draft a five year financial plan for the CADS.

Five month consultancy @ \$8,000

\$ 40,000

Total **\$ 40,000**

e. Legal consultant to be hired for two months to revise and amend CADS data sharing agreement.

Two month consultancy @ \$8,000	\$ 16,000
Salary for a data Input technician	\$ 12,000/yr
Salary for System Administrator	\$ 24,000/yr
Total	\$ 52,000 for yr 1 36,000/yr onwards

f. Two Bachelors Degree-level staff with training in Environmental Data Management and Computer Network Systems Administration to be hired for the CADS.

Two B.SC. level staff @ \$23,000/yr	\$ 46,000/yr
Total	\$ 46,000/yr

4.8.3. Objective: To facilitate access and appropriate use of data relevant to the management of biological resources.

Action:

a. The existing consultancy for the establishment of the new Environmental Statistics Section at the SO to undertake this activity a part of their task.

b. Consultant to be hired for three months to work closely with the CADS to develop standards and provide training to all members and other organizations collecting biodiversity data in Belize.

Three month consultancy @ \$8,000	\$ 24,000
Training material	\$ 2,000

Total	\$ 26,000
--------------	------------------

c. Consultant to be hire for one month to design and conduct short training sessions to all CADS members and other organizations collecting biodiversity data in Belize.

One month consultancy @ \$8,000	\$ 8,000
Training materials	\$ 2,000

Total	\$ 10,000
--------------	------------------

d. This activity to be conducted using the membership resources of the CADS.

C. Agriculture

4.8.4. Objective: To develop and continuously update an accurate database on agricultural land use.

Action:

a. Database on current land use \$400,000

i. aerial photography	\$ 50,000
ii. analysis of photography, preparation of maps 30 person months @ \$6,000 per month	\$180,000
iii. ground touching exercise 10 person months @ \$4,000 per month	\$ 40,000
Transportation and subsistence	\$ 40,000
iv. revision of maps/analysis 7 person months @ \$6,000 per month	\$ 42,000
v) equipment - portable GPS units	\$ 48,000

4.8.5. Objective: To develop a statistically accurate crop information database.

Actions:

a. agricultural census - 100% sample personnel, transportation, subsistence, printing etc.	\$150,000
b. annual sample survey supplementary costs	\$ 25,000
Total	\$150,000 + \$ 25,000/yr

4.8.6. Objective: To develop a database on the in-country genetic stock of agricultural crops and livestock, including location and "ownership" of the genetic material.

Actions:

a. Equipment costs - computer, communications etc.	\$ 25,000
Data entry - 6 person months @ \$4,000 per month	\$ 24,000
Consultant - 3 months @ \$6,000 per month	\$ 18,000
Contribution to facilities (building, A/C etc)	\$ 23,000
Total	\$100,000

D. Medicinal Plants

4.8.7. Objective: To document and catalogue data obtained from the study of medicinal plants.

Actions:

a. Upgrading one(1) center in each of the 6 districts in Belize.

Capital costs

6 centers @ \$1,500/center \$ 9,000

Recurrent costs

Estimated recurrent cost \$ 750/yr

Total \$ 9,000 + \$ 750/yr

b. The cost of this activity is already included in a.

c. 2 newsletter 4 issues a year @ \$5,000/issue published \$ 4,000/yr

Publishing reports, pamphlets etc. @ \$1,000/yr \$ 1,000/yr

Total \$ 5,000/yr

d., e. and f. These activities can be combined since they are very related and have to do with developing and maintaining data in a database. Data would come from the research conducted in 4.4.25.b.

4.9. ACCESS TO GENETIC RESOURCES (Article 15)

General

4.9.1. Objective: To provide guidelines for controlling access to genetic resources.

Actions:

a. A consulting team of two (1 lawyer and 1 natural resource manager) to conduct literature review and visit at least three countries with experience on successful policies and mechanisms for controlling the exploitation of genetic resources. Total of six person months at \$8,000 each including professional fees and other related costs. This will include a report and a debriefing to the NBC, NBO and Solicitor General's Office. Two consultations with stakeholders will be held at a cost of \$3,000 each.

Total **\$ 54,000**

b. Hire a legal consultant for four months to develop policies, laws and enforcement mechanisms and institutional framework necessary to regulate access to genetic resources for pharmaceutical or industrial use. One person month would cost \$8,000. Once consultation with stakeholders to discuss and approve policies, laws, enforcement mechanisms and institutional framework; this will cost \$3,000.

Total **\$ 35,000**

c. A National Committee with wide stakeholder participation will be established to monitor agreements to access genetic resources and to ensure technology transfer for local people. The NBO should make available at least \$12,000 yearly to this monitoring committee. The funds for this activity should be included in the access agreements.

Total **\$ 12,000**

d. Hire a consultant for two months to develop a system of incentives to maximize local participation in the access to genetic resources. Each person month costs \$8,000. Also there will be two consultation with stakeholders to discuss the system and approve it prior to its implementation. This consultation will cost \$3,000.

Total **\$ 22,000**

e. NBC will establish a consortium with local and international partners to conduct research/ inventory to identify areas of high concentrations of organisms with known or potential pharmaceutical value. The funding for this exercise is estimated at \$500,000 per year and will be raised by individual members of consortium but with commitment to the entire five-year program approved by the NBC.

Total **\$2,500,000**

f. Hire an international legal consultant for three months to develop for Belize the international protocols/mechanisms to access genetic resources and indigenous knowledge. Each person month would cost \$20,000. Also a consultation with stakeholders on the protocols/mechanisms will be carried out; this will cost \$3,000.

Total **\$ 63,000**

4.9.2. Objective: To regulate bio-prospecting in all its forms.

Actions:

a. Ten consultations during the five years period will be held on sensitizing the Belizean public on issues

relating to bio-prospecting. Each consultation will cost \$3,000.

Total **\$ 30,000**

b. Hire a legal consultant for two months to develop legislation to monitor and control bio-prospecting; also he/she will conduct two consultation with stakeholders. Two person months will cost \$16,000 and the consultation will cost \$3,000.

Total **\$ 22,000**

4.9.3. Objective: To ensure robust inspections of applications for permits to conduct bioprospecting.

Actions:

a. No additional expense since these robust inspections of applications for permits will carried by committee under 4.9.1. c.

Total **000**

4.9.4. Objective: To address the new areas of Intellectual Property Rights defined by the Convention on Biodiversity.

Actions:

a. Hire a legal consultant for four months (\$32,000) to develop legislation and regulations, inclusive of enforcement mechanisms to address intellectual property rights.

Total **\$ 32,000**

b. Six consultations with stakeholders will be conducted by legal consultant to discuss and finalize legislation and regulations at a cost of \$3,000 each.

Total **\$ 18,000**

c. A media (radio, TV and written) campaign will be developed by NBO at a cost of \$75,000 year.

Total **\$ 75,000**

4.10. Equity and Benefit Sharing (Article 8,10,15,16,20)

4.10.1. Objective: To develop the legal and institutional framework necessary to ensure that maximum benefits accrue to Belize from the exploitation of its biological resources.

a. A consulting team of two persons(1 lawyer and 1 natural resource manager) to conduct a literature review and visit Mexico or Costa Rica to seek information on successful policies and mechanisms to ensure maximum benefit sharing. Total of four person months at \$8,000 each including professional fees and other related costs. This will include a report and a debriefing to the NBC, NBO and Solicitor General's Office.

Total **\$ 32,000**

b. Four consultations(Judiciary, Traditional heals and NGOs, Private Sector Organizations and the general public) to seek Advice on possible ways to ensure equitable distribution of benefits derived from the use of biological, cultural resources, including traditional knowledge. The Officer in charge of the NBO will facilitate the events. Each consultation (\$3,000 each) and report preparation (\$1,500) will cost \$5,000.

Total **\$ 20,000**

c. Hire a legal consultant for two months to develop regulations and work with Solicitor General's Office to get regulations approved. One person month would cost \$8,000.

Total **\$ 16,000**

d. Hire a legal consultant for two month to develop legal and institutional framework for equitable distribution of benefits. One person month would cost \$8,000.

Total **\$ 16,000**

e. Hire a legal consultant for four months to re-examine international policies on intellectual property rights protection and incorporate mechanisms to protect traditional knowledge. One person month would cost \$8,000.

Total **\$ 32,000**

4.11. Population and Biodiversity(Articles 10 and 13)

4.11.1. Objective: To develop, adopt and implement a National Population Policy that is cognizant of poverty, human settlement, economic factors and biodiversity conservation.

a. No additional expenses to be incurred since this requires the coordination only among agencies involved in Human Settlement Planning.

Total **000**

b. This is an on-going activity but required additional budget to ensure wide stakeholder participation. Six consultations per year will be held in each district to finalize and approve planning processes dealing with population and biodiversity. Each consultation will cost \$3,000; during the next five years, 18 consultations will be held for a total cost of \$54,000.

Total **\$ 54,000**

c. No additional expenses to be incurred since this requires the coordination only among agencies involved in Human Settlement Planning.

Total **000**

d. No additional expenses to be incurred since this only requires the submission by the Population Unit.

Total **000**

e. The development of the Population Policy Action Plan will require one consultation with a wide cross sector of the population. This will cost \$3,000. The actual implementation of the Action Plan does not yet have budget but should be ready by the Population Unit in the next few months.

Total **\$ 3,000**

4.12. Biosafety (Article 19)

4.12.1. Objective: To establish a National Biosafety Committee.

a. An average of 5 meetings per year at \$2,000 per meeting as in-kind contribution for staff time, venue, and transportation costs. This is equivalent to \$10,000 per annum or \$50,000 for the 5 years.

Total **\$ 50,000**

b. An average of 5 meetings per year at \$2,000 per meeting as in-kind contribution for staff time, venue, and transportation costs. This is equivalent to \$10,000 per annum or \$50,000 for the 5 years. In addition to the preceding, a legal consultant will be hired for the first two years to review, amend and design legislation on biosafety for Belize; this will cost an additional \$50,000 per year. This totals to \$150,000.

Total **\$150,000**

4.12.2. Objective: To develop guidelines for laboratory and field handling of living modified organisms (LMOs).

a. Hardware and training in database management for the first year will cost \$20,000 while the data-base technician will earn \$16,000 per annum for five years. This totals to \$100,000

Total **\$100,000**

b. The CRA will require a minimum of two professional staff earning \$36,000 each per annum; a vehicle with maintenance cost for five years (\$100,000) and annual operating cost of \$20,000 per annum. This totals to \$560,000

Total **\$560,000**

4.12.3. Objective: To participate in the UNEP/GEF Pilot Biosafety Enabling Activity Project.

a. A grant of Bze.\$50,000 from the "UNEP/GEF Pilot Biosafety Enabling Activity Project" will be sought by the National Biosafety Commission in order for Belize to access funds from the UNEP/GEF to make a stocktaking assessment and gap analysis and prepare a Biosafety Strategy and Action Plan (Bze. \$200,000) for the next 5-10 years for Belize. This a total of \$250,000.

Total **\$250,000**

b. Each year at least two regional workshops on Biosafety will be attended at a cost of Bze. \$10,000 each or \$20,000 per year resulting in \$100,000 for five years. This would normally be covered by the CBD.

Total **\$100,000**