Memorandum Order
No. 10
September 4, 1991

SUBJECT: Guidelines for the Conduct of Resources Basic Inventory (RBI) Within Protected Areas

Pursuant to the provisions of P.D. No. 705, as amended and Executive Order No. 192 and in order to provide a standard procedure for the conduct of Resources Basic Inventory within Protected Areas, the following guidelines are hereby promulgated for the information and guidance of all concerned:

Section 1. Under this Order, Resources Basic Inventory (RBI) shall mean the collection, analysis and synthesis of relevant description/information on the ecological, geological, physical, social, economic and historic environment of a particular protected area and its immediate vicinity. The corresponding RBI Report shall provide comprehensive compilation of resources data for the development, management, use and interpretation of Protected Areas.

Section 2. Resources Basic Inventory shall be undertaken in all established and proposed protected areas. It shall also serve as pre-requisite for the preparation of Master Plan for a particular Protected Area.

Section 3. No Master Plan shall be approved by the Undersecretary for Environment and Research without the necessary Resources Basic Inventory Report. PAWB RBI Form No. 1 hereto attached shall be the standard format for the RBI Report.

Section 4. The following steps shall be followed in the conduct of the Resources Basic Inventory:

Step 1: Documentation

Collation and gathering of basic information regarding the subject Protected Areas.

Step 2: Reconnaissance

Ocular survey of the area to identify the representative plots where an RBI will be conducted. A working map shall be prepared for this purpose.

Step 3: Mapping

Preparation of the base map, preferably with scale of 1:50,000 showing the boundary of the protected areas. Indicate all information on the latest vegetative cover, land-use, elevation, geologic, hydrologic and other aspects of the area.

Step 4: Delineation of Sampling Plots

Using the working map, divide the area into convenient units or compartments, e.g. based on Watershed Units or vegetative types. In each unit or compartment, identify possible sample areas and the number of sample plots.

Step 5: Team Organization

The RBI Teams shall be comprised of inter-disciplinary experts to be led by personnel from PAWB and PAWS needed to determine and study the ecological, physical geological, social, economic, historic features and other values of the area. The number of RBI Teams to be organized shall depend on the number of compartments or sample areas identified.

Step 6: Actual Resources Basic Inventory

Gathering of information/data and conduct of actual RBI shall be guided by RBI Form No. 2 and the RBI Manual, respectively.

Step 7: Analysis and Presentation of Data

Using RBI Form No. 3, prepare individual Protected Area Report maps containing the following information:

1) Existing land-uses
2) Vegetative Cover
3) Soils
4) Geological Resources/features
5) Cultural resources/sites
6) Surface water system

Report shall be supported with the working maps, graphs, photographs, tables, etc. Analyze the data/information gathered and identify all possible constraints and opportunities that will critically influence the planning, management and use of the Protected Areas. Provide recommendations particularly on the constraints identified.

Cebuano _____ Others (Specify) _____
Tagalog _____

3. Are they concentrated in established communities?

_____ Yes _____ No

4. What activities do they practice within the protected areas?

a. Kaingin making _____
b. Permanent Agriculture _____
c. Coconut plantation _____
d. Coffee plantation _____
e. Vegetables and other short rotation crops _____
f. Others (Specify) _____

5. On the average, how long have they been in the area?

6. Are they amenable to resettlement outside the protected areas? (Ask at least 100 people at random)

Yes _____
No _____
Don't Know _____

7. If no, for what reason? (get as many opinions as possible).

8. Comments/recommendations/observations on settlers.

Background Information

1. Location - geographical location

2. Regional Analysis

a. What are the present land uses within the Region particularly the area within 50 kilometers from the protected areas boundary?

b. What are the trends/plans for future development of the protected areas?

c. Are there conflicting land-uses within the protected areas? State use and approximate area. Describe or locate on map.

d. Had there been any significant changes in the last five years?

Regional Transportation System:

a. How can the protected areas be reached from Manila?

by Air _____ Distance _____ Travel Time _____
by Sea _____ Distance _____ Travel Time _____
by Land ____ Distance _____ Travel Time _____

b. What is the major means of transportation within the protected areas?

c. What is the general condition of the roads within the protected areas?

Well paved _____
Gravel road _____
Others (specify) _____

d. How can the protected areas be reached from major urban centers? Specify major urban center and describe type of road, distance, and means of transport.

e. Are there plans to construct new roads or improve existing ones leading to the protected areas?

_____ Yes _____ No

If yes describe briefly.

Population Characteristics:

a. Give the names of the population centers approximate populations and their distance to the protected areas.

b. Determine any important effect of population growth on the protected areas.

5. Tourism Services and recreation:

a. What are the existing outdoor recreation and tourism infrastructure in the area?

Picnic areas _____
Camping areas _____
Swimming areas _____
Mountain climbing _____
Others (Specify) _____
Hotels _____ Approximate distance _____
Restaurants _____ Approximate distance _____

b. How many visitors used the different outdoor recreation facilities during the last year?

6. Visitor uses of Resources:

a. How many visitor visited the protected areas during the last 5 years?
_____

b. What major activities did they participate in?

Picnicking _____ Approximate No. of percent _____
Camping _____ " " " " _____
Sightseeing _____ " " " " _____
Educational Tour ___ " " " " _____
Mountain Climbing " " " " _____
Others (Specify) ___ " " " " _____

c. What is the origin of the visitors?

Locals _____
National _____
Foreign _____

d. What is their age structure?

Young (30 years) _____
Middle Age (30 - 60) _____
Old (60) _____

e. What is the percentage of:

Males _____
Females _____

f. If in group, what kind of group and number in the group?

Business group _____ No. _____
School Organization _____ No. _____
Religious Organization ____ No. _____
Foreign Tourists _____ No. _____
Others _____

g. What is their usual means of transport?

Public utility _____

Chartered bus/limousine _____
Others _____

7. Climate: Type _____

Average temperature _____
Average rainfall _____ Rainy months _____
Prevailing wind direction _____
Insolution (Number or sum days/year) _____ ___

8. Special Conditions:

a. On the average, how many storms pass through the area per year?

b. How long do they usually last?

c. Is there any danger of flooding in the area? If yes, describe source and effects.

d. Is there any danger of volcanic activity in the area? If yes, describe briefly.

e. Are there occurence of landslides? If yes, describe briefly.

9. Terrain and Soils:

a. What is the general nature of the terrain?

Mountaineous and Rugged _____
Hilly _____
Rolling _____
Relatively flat _____

Flat _____

b. Determine information on the mechanical properties of the soil.

c. Is the area susceptible to erosion and/or compaction? If yes, describe briefly.

10. Boundaries:

a. Are the boundaries clearly defined and easily located on the ground?

b. Are there any adverse uses of lands surrounding and adjacent to the protected areas?

Visual pollution _____
Air pollution _____
Noise pollution _____
Others _____

c. Is there a buffer zone between the Protected Areas and the adverse uses around the area? If yes, describe briefly.

11. Zonify the Protected Areas according to the following:

a. Primitive-Scientific Zone: These lands represent the most important and often the most fragile natural values within the park. Nothing in the way of human activity will be permitted within this zone that will degrade these values. Only those structures necessary for management and preservation of the wilderness qualities of this zone will be permitted. Most often this will consist of only a simple unobtrusive guard outpost.

b. Primitive Zone: These natural environment lands often about the Primitive Scientific Zone. They too contain outstanding natural

features. However, the lesser overall environmental quality of these lands and/or the need for this zone. Primitive Zone lands also serve as transition or buffer areas, often separating Primitive Scientific Zones from more accessible park zones. Exotic plants and animals will not be introduced and if possible will be eradicated in this zone. Physical development will be restricted to rudimentary trails, simple campsites, guard outposts, and minimal research facilities. Roads and motorized vehicles will be prohibited.

c. Extensive Use Zone: This classification is necessary to provide visitors with high quality park environment that is easier of access. Within this zone, park roads (usually one-way), trails, simple campgrounds, scenic overlooks, and vista clearing will be permitted. Development, however, will preclude facilities that will encourage high density use such as visitor centres, hotels, ski lifts, etc. Every effort will be made to reduce the environmental impact of physical development on this zone. As with the Primitive Zone, these lands will often function as a buffer or transition to more protected zones.

d. Intensive Use Zone: This is the zone of high density visitor and management use. Such lands, usually comprising a small percentage of the park, a total area, designate lands to be used for two-way roads, visitor centers, visitor supply stores, formal campgrounds, overnight accomodation and park administration offices. These are the lands that are most affected by visitor use. As with development in other zones, extreme care must be taken to lessen the impact of physical development on park values. Caution must be exercised to prohibit development either in kind or in degree that will hint or urbanization. Facilities for public use placed in this zone should be the minimum required to promote visitor enjoyment and safety as well be resource protection.

e. Historic-Cultural Zone: This classification is given to lands within the park boundary/containing nationally and internationally significant archeologic, historic or contemporary cultural resources. This classification is important for it directs attention to the importance of protecting and interpreting these vestiges of the nations cultural heritage. Often it becomes desirable to provide a setting for these zones with abutting Primitive or Extensive Zone lands. Physical development will be only that necessary for the preservation, restoration and interpretation of cultural values. Public use activities are generally limited to sightseeing and education.

f. Zone of Recuperation Lands within park boundaries that have been altered by the introduction of exotic animals, plans, mining, cutting, burning, colonization, farming, etc., bring about a need for this zone. Once the future management goal for these lands has been determined (see Resource Protection) an action programme will be set in motion, directed at recuperation. In some cases, restoration to original land forms may be necessary. Installation and equipment necessary to facilitate the implementation of these programmes will be permitted within this zone.

g. Special Use Zone: This zone is used for designating lands required for basic management services such as employee housing, maintenance and storage facilities, water and electric plants, communication towers, sanitary land fills borrow pits, etc. Insofar as possible, these installations will be visually and acoustically isolated from visitor use areas. This zone also is used to designate lands which support land use practices incompatible with park objectives. In the latter case these designations are transitory being only necessary until corrective action can be taken through park management or land acquisition programmes.

Site Information Sheet

1. Were you able to visit the site?

_____ Yes _____ No

2. If no, how did you locate the area?

_____ Map
_____ Local source
_____ Could see area but could not visit it
_____ Other

3. Approximately what is the area of the site?

_____ Hectares

4. What is the approximate slope of the land inside the site? _____ %

5. What kind of water resources does the site have?

_____ Spring _____ Lake (Open Reservoir)
_____ Stream _____ Well

6. Is there a steady source of water throughout the year?

_____ Yes _____ No

7. What is the quality of the water?

_____ Sanitary without treatment
_____ Sanitary with minor treatment
_____ Major treatment necessary

8. Is the area already accessible by road?

_____ Yes _____ No

9. If answer to 8 is yes, what kind of road?

Paved _____ Gravel _____ 4WD Trail _____

10. If answer to 8 is no, could the site be reached by a road without causing major damage to other parts of the area?

_____ Yes _____ No

11. If yes to 10, how much road would need to be built?

_____ km.

12. If yes to 10, how would you rate the terrain between the site and the nearest road?

_____ Rugged & Steep _____ Moderately Steep
_____ Hilly _____ Flat

13. If yes to 10, would it be necessary to build any major structures such as bridges to reach the area?

_____ Yes _____ No

14. What kind of vegetative cover does the site have? Describe.

15. Describe the development which might be possible for the area.

16. Describe any development problems that are apparent at this site.

Visitor Use Topics

1. What percent of the area visitors are:

   _____ % local (within 25 km. of the area boundary)
   _____ % other nationals (travel from throughout the Phils.)
   _____ % Foreign

2. How often do these groups visit the area?

   Local: _____
   Other nationals: _____
   Foreign: _____

3. Why do the local people visit the area?

   a. What is their purpose for coming?

   b. What recreational activities do they participate in?

4. Why do the other Philippine nationals visit the area?

   a. What is their purpose for coming?

   b. What recreation activities do they participate in?

5. Why do foreigners visit the area?

   a. What is their purpose for coming?

   b. What recreation activities do they participate in?

6. What types of recreational activities would the visitors like to have added to the area?

7. What additional recreation facilities do you feel are needed?

8. What benefits (socio-economic) do the existing recreation and tourist developments give to the local population?

9. In what ways would additional developments benefits the local population?

10. Are there any local agencies or organization which actively promote tourism in the area? (name of organizations)

11. Are there any school, youth (scouts, etc.) or other groups using the area for educational outings?

_____ Yes _____ No

12. What other general uses is the area good for?

13. What problems have been encountered or anticipated in managing the area?

14. What are the solutions to those problems?