

SITE DATA SHEET

1 SITE INFORMATION

A. SHEET IDENTIFICATION

5 PG 001

- (1) NAME OF SITE: *Tonda*
- (2) SHEET NUMBER:
- (3) ATTACHMENTS: *Map of major vegetation zones*

B. FORMAL DESCRIPTION OF THE SITE

- (1) TYPE OF PA: *WMA*
- (2) TENURE: *Customary ownership with leasehold land covering the site of a tourist lodge*
- (3) GAZETTAL INFORMATION: *Gaz. date 20/1/75, first set of rules gazetted 6/2/75 with a number of amendments to these rules over the following years*
- (4) AREA: *590,000 ha*

C. LOCATION

- (1) PROVINCE: *Western Prov.*
- (2) LOCAL GOVERNMENT AREA: *Balamuk*
- (3) CLOSEST MAJOR TOWN: *Daru, district headquarters at Morehead*
- (4) AVAILABLE MAPPING INFORMATION: *Topo. maps 1:100,000; Weam sheet 7180, Morehead 7280, Jari 7380, Boigu 7379, Mari 7279, Bensbach 7279*

D. REASON/PURPOSE FOR DECLARATION AS PA

*To manage the taking of fauna and, in particular, to gain income from hunting/fishing permits*

E. INFORMATION SOURCES

- (1) SURVEYS/MONITORING:
- (2) CONTACTS WITH DETAILED KNOWLEDGE OF THE SITE:
- (3) D.E.C. FILES: *2-20-16 (5)*
- (4) REFERENCES: *Eaton, P. (1986) Grassroots Conservation - Wildlife Management Areas in PNG Land Studies Centre Report 86/1 UPNG*
- Stewart, J.F. (1981) A Study of the Wild Rusa Deer in Tonda WMA. PNG FAO Report*
- Tapari, B (199?) Dept. of Geography UPNG Occasional Paper No ?*

## SITE MANAGEMENT INPUTS

### F. HISTORICAL NOTES

#### (1) IMPORTANT EVENTS IN THE ESTABLISHMENT OF THE PA:

*. the WMA was established at the request of the landowners with the opening of the Bensbach Lodge providing motivation for management control; the lodge (and especially its manager) have been a driving force in the operations and success of this WMA.*

### G. INTEGRATION WITH TRADITIONAL LANDOWNERS

#### (1) CUSTOMARY LANDOWNERS AND TENURE:

#### (2) MANAGEMENT COMMITTEE MEMBERS:

<i>Nema Sapiarang</i>	<i>Wando village</i>
<i>Sobili Batik</i>	<i>Korombo</i>
<i>Wamo Kapai</i>	<i>Mengete</i>
<i>Sokai Motua</i>	<i>Indorodo</i>
<i>Kasimu Gapoi</i>	<i>Weam</i>
<i>Seku Sekoi</i>	<i>Wekapere</i>
<i>Nakai Kuman</i>	<i>Kandarisa</i>

*(Note: these are the villages listed in the gazetta notice; the field visit identified the village names of Balamuk, Wando, Karombo, Bula, Wamanepi and Bondaboli)*

#### (3) TRADITIONAL MANAGEMENT TECHNIQUES APPLIED:

#### (4) COMMUNITY PROFILE NOTES:

*. estimated population within the WMA of 1,239 in up to 12 villages; the population density is very low*

*. Karombo, Balamuk have churches and school (to grade 6); police were recently withdrawn from community*

*. travel is primarily by canoe or walking; two member villages are at distant locations requiring air flights or long difficult travel to attend to WMA business*

*. refugee camps are located upstream and OPM activity reported in the area*

#### (5) SUBSISTENCE USE:

#### (6) CASH INCOME FOR LANDOWNERS:

*Licence fees and royalties include:*

*1978 - K14,748; 1979 - K17,314; 1980 - K16,044; 1982 - K19,514; 1987 - K25,207;*

*There are no records for the other years between 1978 and 1987. Fifty percent should have been placed in the Trust Fund and 50% should have gone to individual landowning families*

*. the lodge used to handle the royalties and fees collected but in 1980 relinquished this role and handed K27,000 to the WMA committee; the agents for handling this money were gazetted as Wandi Maradi and Iokopa (both) of Wando village*

*. crocodile skins are a source of cash income; crocodiles farms have been developed by landowners*

(7) COST OF CON. MAN. FOR COMMUNITY:

(8) LOCAL ATTITUDE/SUPPORT FOR PA:

- . the landowners support the presence of the WMA and in particular its integration with the lodge operations*
- . there is currently talk of the landowners buying the resort*

H. GOVERNMENT RESOURCES ALLOCATED TO MANAGEMENT

(1) GOVERNMENT CONTACT OFFICER(S):

(2) ON SITE STAFF:

(3) STAFF RESOURCES:

- . previously the Western Prov. had a wildlife officer working in this Province; the local Agricultural Officer (Giseire Sukawo) assists where possible*

(4) GOVERNMENT BUDGET:

(5) ACTIVITIES AND TASKS OF STAFF:

(6) INCOME GENERATED FROM SITE FOR GOVERNMENT AGENCIES:

I. VISITOR USE

(1) VISITATION STATISTICS:

- . the Lodge has 240 visitors booked for the period April to September 1992*

(2) VISITOR FACILITIES:

- . fully equipped lodge including facilities and equipment for hunting and fishing; guides available for hire*
- . in 1981 it was estimated 200 male deer per year taken, this has since decreased with fishing and bird watching becoming more popular*

(3) NEAREST VISITOR ACCOMMODATION:

- . Bensbach Lodge approx. K 100 per day (including meals)*

(4) PUBLIC INFORMATION/BROCHURES:

(5) PUBLIC ACCESS:

- . access by air with scheduled flights and irregular charters*
- . overland access possible in the dry season*
- . rivers and water channels used as boat transport routes*

## SITE MANAGEMENT

### J. MANAGEMENT CONTROL MECHANISMS

#### (1) MANAGEMENT RULES:

*. The initial rules of 1975 have been amended at least four times in 1976, 1979, 1986 and 1990*

*The rules provide for the issuing of licences (commercial, tourist and individual use), it restricts the use of guns to those used by the lodge, sets limits on size and sex of fauna taken, establishing areas within which hunting is restricted and it sets licence and royalty fees and regulates the handling of monies received*

*Only the customary landowners are allowed to hunt freely*

#### (2) EXISTING RESOURCE USE AGREEMENTS:

*. an agreement exists with the landowners restricting hunting within a certain distance of the lodge*

*. the mining exploration was preceded by an agreement and compensation payment to some members of the community*

#### (3) OTHER PLANNING DEVICES IN OPERATION:

#### (4) OTHER MECHANISMS FOR ENFORCEMENT OR COOPERATION:

*. the landowners would like an on-site wildlife officer or at least more frequent visits*

### K. EXAMPLES OF MANAGEMENT ACTIVITY

#### (1) SUCCESSES:

*. the WMA functions well primarily because of the activity of the lodge;*

*. water buffalos are eradicated from the area*

#### (2) FAILURES:

*. regular meetings of the committee are impossible because of the cost of travel*

*. there is a law and order problem blamed on the activities of the OPM rebels*

*. there are problems with handling the monies received; money was recently transferred to a Port Moresby account to be administered by a lawyer there - apparently the fate of this money is uncertain with the landowners not knowing where or how to check up on this fund*

#### (3) PLANS FOR FUTURE:

*. the landowners would like to buy the lodge and begin commercial operations using the deer*

### L. MANAGEMENT ISSUES

### (1) MOST IMPORTANT MANAGEMENT ISSUES:

- (1) *Poaching of crocodiles with skins being taken across the border. Also illegal netting of fish across the mouth of the Bensbach River. Officials are also said to be killing deer without permission.*
- (2) *The presence of refugee camps and OPM activity is becoming a law and order problem.*

### (2) SECONDARY ISSUES:

- (3) *Should improve the methods of for calculating (weighing) and collecting royalties.*
- (4) *The deer farming operation needs attention; there is a need for wells and expert advice. Other development proposals concerning wildlife (cassowary, crocodile or butterflies) also need expert advice.*

### (3) POTENTIAL ISSUES:

- (5) *The lodge manager has been involved in a shooting incident which resulted in the death of a local person - antagonism and compensation are currently being discussed*

## M. ECONOMIC CONSIDERATIONS

### (1) EMPLOYMENT OPPORTUNITIES:

- proposals exist for:*
  - a dried deer meat operation*
  - export of live deer through NAMI; this has been stopped by restrictions on the export of this exotic animal although hopes are still held for the export of an internal PNG market and/or the sale of the remaining captive deer*
- there is a current proposal for the establishment of a second lodge on the eastern side of the WMA as a specialist fishing operation for Bass; negotiations are continuing with problems perceived in having a lease-holding within a WMA; Lands Dept. does not see this as a problem however*

### (2) CASH INCOME GENERATED FOR NON GOV/TRAD. :

- the Bensbach Lodge has been successfully operating, although apparently not registering a profit, since 1975*
- some deer farming occurs on the site*

### (3) RESOURCES AVAILABLE FROM OTHER SOURCES:

### (4) INDIRECT, ADJOINING OR REGIONAL ECONOMIC FACTORS:

- a mining lease currently covers part of the WMA area and seismic testing has recently been carried out*

## II SITE DESCRIPTION

### A. BIOGEOGRAPHIC ZONE: *Western*

### B. CLIMATE:

- . *Lowland Subhumid*
- . *Annual rainfall 1500 - 2000 mm (beginning Dec/Jan.)*

### C. TOPOGRAPHY:

- . *flat alluvial plain rarely rising above 45 m*

### D. GEOLOGY/SOILS:

- . *swamp soils/conditions prevail over much of the area; CSIRO surveys classify this area as unsuitable for commercial agriculture*

### E. VEGETATION DESCRIPTION:

- . *estimated that 10 % of area is open grassland and savannah; common in much of the remainder is Melaleuca and Acacia; riverside gallery forests*
- . *grassland typically Pseudoraphis spinescens and Phragmites karka (floating mat)*

### F. FAUNA:

- . *large and spectacular populations of migratory and wetland birds have been a major attraction in recent years*
- . *includes wallabies, birds-of-paradise*
- . *introduced fauna include brumbies, pigs, buffalo rusa deer (est. pop. 60,000),*

### G. CONDITION AND INTEGRITY OF THE SITE:

- . *the introduced fauna must be having an effect on the original ecology of the area, especially overgrazing by excessive numbers of deer.*
- . *there is an unidentified tobacco/sage type weed infesting the plains*

### H. CONSERVATION FEATURES:

- . *seasonally flooded grasslands, Melaleuca forest, wetlands, gallery forest, Barramundi, very rich wetland avifauna including migratory waders (best in PNG), important refuge for Australian wetland avifauna in drought years, 63 spp of fish recorded from Bensbach River.*

### I. INTEGRATION WITH SURROUNDINGS

#### (1) BOUNDARY CONSIDERATIONS:

- . *too big to patrol or monitor; adjoining the Irian Jaya border and is easily crossed by local people*
- . *this ease of crossing encourages movement by OPM rebel forces*

#### (2) CATCHMENT CONSIDERATIONS:

- . *higher rainfall areas to north drain in to the WMA resulting in widespread flooding and inundation for half the year (at least)*
- . *at the end of the dry season the Bensbach River becomes brackish and the Jarl River dries up; the watertable drops significantly*