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Institutional Arrangements for Financing Protected Areas

**Panel A**

Government structures for financing protected area systems

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**Public Sector Support and Management of Protected Areas in  
Indonesia**

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**Abstract**

*Irregular and inadequate financing for recurrent costs is a generic and probably global problem for protected areas. Most Indonesian protected areas are poorly resourced, some receiving no regular budgets at all, and are reliant on supplementary donor financing, which covers only a limited project period. The Government of Indonesia is aware of the reliance on donor aid, and is exploring options to ensure adequate financing to cover recurrent costs of protected area financing through new mechanisms for raising conservation revenues. The government, supported by the World Bank, has developed an Integrated Conservation and Development Project (ICDP). This project has been applied to a diverse range of initiatives with the common goal of linking biodiversity conservation in protected areas with local social and economic development. In practice, ICDPs refer not just to a general concept but to a specific set of activities targeting a protected area and, usually, the inhabited zone around it.*

**Introduction**

The government agency responsible for protected area management is the Directorate General of Protection and Nature Conservation (PHKA) in the Ministry of Forestry. But the task of managing Indonesia's protected areas is widely acknowledged as being beyond PHKA's modest capabilities. During the period leading up to Indonesia's economic crisis in late 1997, the Government of Indonesia's (Gol's) total annual investment in protected areas had increased, and foreign aid was contributing approximately 11 - 18 percent (see Table 1).

An effective strategy for the financing of protected areas must consider several sources in order to guarantee the continuity of financing. Table 1 shows that the Directorate General of Protection and Nature Conservation gave the national park budget priority among many other programs. Table 2 shows that financial resources for national parks in Indonesia come from the national development budget, the national routine budget, foreign aid, a re-afforestation fund (DR), and from forest product fees (IHH).

**Table 1**  
**Budget of Ministry of Forestry and Plantation**  
**Directorate General of Protection and Nature Conservation and National Parks**

Directorate General of								
Fiscal Year	Ministry of Forestry		Protection and Nature Conservation			National Park		
	Nominal in Rupiah	Real in Rupiah	Nominal in Rupiah	Real in Rupiah	Per cent age	Nominal in Rupiah	Real in Rupiah	Per cent age
1994/1995	488,507,674,000	463,479,759,894	52,904,256,000	50,193,790,545	10.83	15,870,750,000	15,057,637,353	30.00
1995/1996	655,971,807,000	557,799,162,850	57,861,743,000	49,202,163,053	8.82	21,756,861,000	18,500,732,383	37.60
1996/1997	657,109,285,000	519,453,980,237	74,309,981,000	58,743,067,984	11.31	22,106,927,000	17,475,831,621	29.75
1997/1998	636,590,426,000	422,983,671,761	78,915,409,000	52,435,487,708	12.40	23,953,797,000	15,916,144,186	30.35
1998/1999	655,085,586,000	219,092,169,231	126,887,515,000	42,437,295,987	19.37	34,801,671,000	11,639,354,849	27.43
1999/2000	994,472,130,000	311,746,749,530	156,696,448,000	49,121,143,574	15.76	51,279,499,000	16,075,078,056	32.73
2000/	600,451,684,000	182,508,110,638	54,246,151,000	46,488,191,793	9.03	19,767,034,000	6,008,217,021	36.44

Source : Bureau Planning, Secretariat Directorate General, Ministry of Forestry and Plantation, 2001

The government of Indonesia has identified tourism as a potential growth area for procurement of foreign currency. While this creates its own problems, it also provides an opportunity for Indonesia's biodiversity, through its protected areas, to be marketed internationally.

## Government funding for protected areas

There is a great disparity in funding and staffing levels in different protected areas in Indonesia (Table 3). Designated national parks are eligible for relatively large government budgets through their Technical Execution Units. Because of this, several protected areas that were receiving external donor support have become national parks as a way to ensure the sustainability of recurrent cost financing. Both the number of parks and the amount of funding increased from donors and government budgetary allocations through the late 1980s and 1990s, until the economic crisis struck in 1997.

The 30 protected areas with major donor financing represent only 10 % of the total number of protected areas in the country but just over half of the total land area of terrestrial protected areas, that is, donor funding has focused on some of the largest protected areas. Current protected areas have tended to focus primarily on the western islands and on forest habitats rather than coastal, marine and freshwater ecosystems (The World Bank, 2001).

**Table 2**  
**Total Budget for National Parks**

Fiscal Year	Financial Resource	Rupiah		Dollar US	Percentage
		Nominal	Real		
1993/1994	National Development Budget	6,570,235,000	6,570,235,000	2,920,104.40	55.49
	National Routine Budget	2,048,559,000	2,048,559,000	910,470.67	17.3
	Foreign Aid	1,231,632,000	1,231,632,000	547,392.00	10.4
	Reafforestation Fund (DR)	456,990,000	456,990,000	203,106.67	3.86
	Forest Product Fee (IHH)	1,532,831,000	1,532,831,000	681,258.22	12.95
	<b>Total</b>	<b>11,840,247,000</b>	<b>11,840,247,000</b>	<b>5,262,332.00</b>	
1994/1995	National Development Budget	8,061,829,000	7,648,794,007	3,505,143.0	50.8
	National Routine Budget	2,854,584,000	2,708,333,927	1,241,123.40	17.99
	Foreign Aid	1,455,257,000	1,380,699,221	632,720.43	9.17
	Reafforestation Fund (DR)	3,499,080,000	3,319,810,199	1,521,339.10	22.05
	<b>Total</b>	<b>15,870,750,000</b>	<b>15,057,637,353</b>	<b>6,900,326.09</b>	
1995/1996	National Development Budget	8,803,251,000	7,485,757,750	3,778,219.30	40.46
	National Routine Budget	3,425,838,000	2,913,127,589	1,470,316.70	15.75
	Foreign Aid	4,247,328,000	3,611,673,516	1,822,887.50	19.52
	Reafforestation Fund (DR)	2,858,990,000	2,431,113,977	1,227,034.30	13.14
	Forest Product Fee (IHH)	2,421,454,000	2,059,059,551	1,039,250.60	11.13
	<b>Total</b>	<b>21,756,861,000</b>	<b>18,500,732,383</b>	<b>9,337,708.58</b>	
1996/1997	National Development Budget	9,861,213,000	7,795,425,296	4,178,480.00	44.61
	National Routine Budget	4,113,888,000	3,252,085,375	1,743,172.80	18.61
	Foreign Aid	2,483,869,000	1,963,532,806	1,052,486.80	11.24
	Reafforestation Fund (DR)	2,720,511,000	2,150,601,581	1,152,758.90	12.31
	Forest Product Fee (IHH)	2,927,446,000	2,314,186,561	1,240,443.20	13.24
	<b>Total</b>	<b>22,106,927,000</b>	<b>17,475,831,621</b>	<b>9,367,341.95</b>	
1997/1998	National Development Budget	10,392,670,000	6,905,428,571	4,157,068.00	43.39
	National Routine Budget	4,631,924,000	3,077,690,365	1,852,769.60	19.34
	Foreign Aid	4,400,151,000	2,923,688,372	1,760,060.40	18.37
	Reafforestation Fund (DR)	1,604,656,000	1,066,216,611	64,186,240.00	6.7
	Forest Product Fee (IHH)	2,924,396,000	1,943,120,266	1,169,758.40	12.21
	<b>Total</b>	<b>23,953,797,000</b>	<b>15,916,144,186</b>	<b>9,581,518.80</b>	

Fiscal Year	Financial Resource	Rupiah		Dollar US	Percentage
		Nominal	Real		
1998/1999	National Development Budget	7,421,864,000	2,482,228,763	989,581.87	21.33
	National Routine Budget	10,055,904,000	3,363,178,595	1,340,787.20	28.89
	Foreign Aid	8,390,613,000	2,806,225,084	1,118,748.40	24.11
	Reafforestation Fund (DR)	1,604,656,000	1,066,216,611	64,186,240.00	6.7
	Forest Product Fee (IHH)	5,396,051,000	1,804,699,331	719,473.47	15.51
	<b>Total</b>	<b>34,801,671,000</b>	<b>11,639,354,849</b>	<b>4,640,222.80</b>	
1999/2000	National Development Budget	10,599,748,000	3,322,805,016	1,413,299.70	20.67
	National Routine Budget	12,265,854,000	3,845,095,298	1,635,447.20	23.92
	Foreign Aid	9,572,742,000	3,000,859,561	1,276,365.60	18.67
	Reafforestation Fund (DR)	12,774,254,000	4,004,468,339	1,703,233.80	24.91
	Forest Product Fee (IHH)	6,066,901,000	1,901,849,843	808,920.13	11.83
	<b>Total</b>	<b>51,279,499,000</b>	<b>16,075,078,056</b>	<b>6,837,266.53</b>	
2000	National Budgeting Development	5,269,139,000	1,601,562,006	702,551.87	26.66
	National Budgeting Routine	10,149,097,000	3,084,831,915	1,353,212.90	51.34
	Foreign Aid	4,348,798,000	1,321,823,100	579,839.73	22
	<b>Total</b>	<b>19,767,034,000</b>	<b>6,008,217,021</b>	<b>2,635,604.53</b>	

Source : Sub Directorate Programme and Budgeting, Directorate General of Protection and Nature Conservation, Ministry of Forestry and Plantation, 2001

Funding from multilateral development banks and bilateral donors has increased significantly over the past six years, stimulated by a desire to assist the government. Since most donors require a commitment of substantial government counterpart funding, parks and other protected areas receiving outside assistance have generally received increased government funding, which may partially explain the overall increase in government funding for conservation. This insistence on adequate counterpart budgets makes good sense in attempting to ensure sustainability of activities beyond a project lifetime but it also means that both government and donor funds are concentrated in just a few areas. It has been estimated that in 2000, about 40 % of the budget of the Directorate General of Protection and Nature Conservation for development went to just two donor-assisted parks, Gn. Leuser (with funding from European Union, "EU") and Kerinci Seblat (with World Bank funding) (see Table 3) (The World Bank, 2001).

The Directorate General of Protection and Nature Conservation is experimenting with innovative new management models involving the private sector (ecotourism concessions at Komodo National Park) and NGOs (overall management authority at Leuser).

## More effectively applying government funds for protected areas

Given the limited success so far of protected areas and ICDPs, the GoI has given consideration to other, more radical models to create conservation incentives. One possibility would be to simply pay cash in return for protected area protection. Selected local or national government entities or NGOs would receive cash to use as they see fit in exchange for protected area management and conservation commitments. Under such an arrangement, payment schedules over extended periods would be subject to independent reviews. The funding for such arrangements could originate from international sources or from the GoI. This concept is a simplification of the conservation concession pioneered at Gunung Leuser National Park.

Gunung Leuser has established a strong and independent project management unit outside the government system. This is an important and controversial experiment that has already attracted criticism. The conventional wisdom in development is to reject such approaches, on the grounds that special arrangements outside government will almost never be absorbed into routine operations after external inputs cease and are therefore unsustainable. While that is often true, two of the key assumptions underlying this argument may not apply to biodiversity conservation. First, costly conservation projects are rarely financially sustainable after external inputs dry up. This means that external inputs will need to continue well beyond standard project time horizons if biodiversity is to be conserved. If financial sustainability is not assumed, then the arguments for always working within the existing system become weaker. Second, the prospects of introducing more effective arrangements with public sector institutions for conservation in Indonesia may be quite limited. Therefore, the usual project ambition of eventual integration into a functional government operation may not be optimal in the conservation sector. In practical terms, this means it may be preferable to design site-specific interventions that simply go around the mass of special exemptions, specific decrees, overlapping or even competing regulations and laws, and often - incompatible agency jurisdictions in each project area (Wells et al, 1999).

In determining areas where limited funding and resources from national and donor sources should be applied, a pragmatic approach would be to divide protected areas into three categories:

- those where conservation values have been so severely compromised that the costs of conservation and restoration are so great that the sites should be turned over to local management and financing;
- those that are so remote and are experiencing so few problems that they will look after themselves to a large extent in the short and medium term; again the primary source of funding could be at the local level; and
- those under medium threat where the chances for conservation success are good with appropriate active assistance.

One of the major concerns for biodiversity conservation in Indonesia is how to make management of protected areas more effective. Generally, national parks are better resourced than other conservation areas but even parks are often understaffed (on average one guard for 5000 Ha) and have limited budgets (see Table 3), with most parks spending on average \$0,18 per hectare. Even parks which are relatively well financed through donor support present a number of generic management problems including: poor staff morale and discipline; lack of incentives for good performance; capacity constraints and limited training; emphasis on spending on park infrastructure such as civil works, rather than enforcement or awareness building activities; and budget allocations according to previous budgets rather than according to threats or needs on the ground.

## Developing synergies with others to finance protected areas

In Indonesia, there is strong support for technical assistance and institutional capacity building, mainly from bilateral agencies providing technical cooperation and some specialized agencies of the United Nations, such as: Natural Resources Management (NRM) - USAID; JICA; DFID; FAO; UNDP; and UNEP. International financing agencies should not only consider the financier interest, which often gives priority

to the strengthening of areas from certain ecosystems and loses the systemic vision of the national system of protected areas.

**Table 3**

<b>Budgets and staffing Levels for National Parks</b>						
<b>National Park</b>	<b>Biogeographic region</b>	<b>Area (Ha)</b>	<b>Budget 2000 (US\$)</b>	<b>\$/Ha</b>	<b>Staff</b>	<b>Area/guard</b>
<b>A. National Park</b>						
Gunung Leuser	Sumatera	1,094,692	141,309	0.13	201	5,446
Siberut	Sumatera	190,500	43,356	0.23	60	3,175
Kerinci Seblat	Sumatera	1,368,000	710,320	0.52	154	8,883
Bukit Tigapuluh	Sumatera	127,698	32,776	0.26	45	2,838
Berbak	Sumatera	162,700	41,746	0.26	45	3,616
Bukit Barisan Selatan	Sumatera	365,000	78,499	0.22	104	3,510
Way Kambas	Sumatera	130,000	139,756	1.08	274	474
Ujung Kulon	Jawa Barat	122,956	91,902	0.75	109	1,128
Gunung Halimun	Jawa Barat	40,000	45,531	1.14	65	615
Gn. Gede Pangrango	Jawa Barat	15,000	74,404	4.96	95	158
Bromo Tengger S.	Jawa Timur	50,276	55,524	1.10	75	670
Meru Betiri	Jawa Timur	58,000	48,702	0.84	75	773
Alas Purwo	Jawa Timur	43,420	46,944	1.08	100	434
Baluran	Jawa Timur	25,000	97,505	3.90	83	301
Bali Barat	Bali	19,003	87,439	4.60	124	153
Gunung Rinjani	Lombok, NTB	40,000	43,859	1.10	44	909
Komodo	Komodo, NTB	173,300	67,085	0.39	96	1,805
Kelimutu	Flores, NTT	5,000	39,948	7.99	25	200
Laiwangi-Wanggameti	Sumba, NTT	47,014	-	-	-	-
Manupeu-Tanah Daru	Sumba, NTT	87,984	-	-	-	-
Danau Sentarum	Kalimantan Barat	129,700	-	-	-	-
Gunung Palung	Kalimantan Barat	90,000	35,707	0.40	43	2,093
Betung Krihun	Kalimantan Tengah	800,000	36,093	0.05	29	7,586
Bukit Baka-Bukit Raya	Kalimantan Tengah	181,090	36,727	0.20	38	4,766
Tanjung Puting	Kalimantan Tengah	415,040	59,957	0.14	61	6,804
Kayan Mentarang	Kalimantan Timur	1,360,500	-	-	-	-
Kutai	Kalimantan Timur	198,629	74,812	0.38	74	2,684
Bogani Nani Wartabone	Sulawesi Utara	287,115	92,450	0.32	31	9,262
Lore Lindu	Sulawesi Tengah	229,000	47,970	0.21	75	3,053
Rawa Aopa Watumohai	Sulawesi Tenggara	105,194	46,444	0.44	48	2,192
Manusela	Maluku	189,000	40,988	0.22	60	3,150
Lorentz	Irian Jaya	2,505,600	-	-	-	-
Wasur	Irian Jaya	413,810	51,351	0.12	43	9,623
<i>Subtotal (A)</i>		<i>11,070,221</i>	<i>2,409,104</i>	<i>0.22</i>	<i>2276</i>	<i>4,864</i>
<b>B. Marine Park</b>						
Kepulauan Seribu	Jawa Barat	108,000	51,211	0.47	90	1,200
Karimunjawa	Jawa Tengah	111,625	23,220	0.21	60	1,860

<b>Budgets and staffing Levels for National Parks</b>						
<b>National Park</b>	<b>Biogeographic region</b>	<b>Area (Ha)</b>	<b>Budget 2000 (US\$)</b>	<b>\$/Ha</b>	<b>Staff</b>	<b>Area/guard</b>
Bunaken	Sulawesi Utara	89,065	36,429	0.41	39	2,284
Taka Bonerabe	Sulawesi Selatan	530,765	36,854	0.07	71	7,476
Kepulauan Wakatobi	Sulawesi Tenggara	1,390,000	27,334	0.02	64	21,719
Teluk Cendrawasih	Irian Jaya	1,453,500	46,861	0.03	59	24,636
<i>Subtotal (B)</i>		3,682,955	221,909	0.06	383	59,174
<b>Total</b>		<b>14,753,176</b>	<b>2,631,013</b>	<b>0.18</b>	<b>2,659</b>	<b>5,548</b>

Source : The World Bank, 2001

Many designated protected areas in Indonesia had small or nonexistent government budgets and little effective management even before the economic crisis. International NGOs have been among the main providers of external technical and financial assistance since 1994. Some examples include: World Wide Fund for Nature (WWF), the Nature Conservancy (TNC), Conservation International (CI), Birdlife International, Wetland International and Wildlife Conservation Society (WCS). These NGOs still maintain diverse conservation programs in Indonesia, with a primary focus on terrestrial and marine protected areas.

The Gol could also consider inviting tenders for the management of individual protected areas, as follows: the Gol would commit to taking any steps necessary to protect a particular protected area perhaps for 25 years while allowing independent monitoring. Interested parties (such as development agencies, NGOs, and private sector organizations) would then bid the amount they would be prepared to pay to secure this protected area, payable over the full term of the agreement as long as the Gol continued to live up to their protection commitment. If adequate offers of international funds were not forthcoming, the Gol could then decide whether to finance conservation domestically (perhaps based on an assessment of watershed protection, tourism potential, or other national economic benefits) or to turn the protected area over to other uses. Such an approach could help to sharpen the currently rather vague discussion concerning the level of financial resources that should be transferred to developing countries from richer nations to support biodiversity conservation in the global interest.

## Conclusions

In recent years, discussion regarding to the challenge of providing adequate financing for protected areas have become mechanical and predictable. The issue of financing protected areas has also become incorrectly framed as a case of charity to be disbursed from the developed to the developing countries.

Funding from multilateral development banks and bilateral donors as well as international NGOs might be able to provide the external support required to ensure financial sustainability for protected areas through the government budget. However, the government's effort to improve the long term flow of funds - hence to ensure sustainability of activities - should maintain the approach of integrated conservation and development in managing the protected areas, and create new and innovative management models involving the private sectors and NGOs.

For government funds to be more effectively applied to protected areas, especially in certain areas with limited funding and resources, a pragmatic approach should be applied to finance protected areas through categorization.

Synergies with interested parties such as development agencies, NGOs, and private sector organizations as well as international funds might also be developed if the government shows a serious effort to finance conservation domestically.

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