Potential solutions: multi-faceted programmes to take hunting pressure off protected areas in Sarawak, Malaysia

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Background to wildlife management in Sarawak

Sarawak is the largest state in Malaysia. It is relatively stable, and has a democratic government with elections held every five years. Its human population is 2.07 million, or about 17 people per km². There are 27 ethnic groups, and 51.9% of the population is rural.

Sarawak's land area is approximately 124,000 km². In 1996, 82% of the land was under some form of forest cover, and 50% under the Permanent Forest Estate.

Political support for wildlife conservation in Sarawak is strong. Policies are government-led. In 1994, the Sarawak Government invited the Wildlife Conservation Society (WCS) to work with them to prepare "A Master Plan for Wildlife in Sarawak", i.e., a comprehensive policy, prescriptive, cross-sectoral plan on conserving wildlife across the State. The Master Plan was officially submitted to the State Government in December 1996, and officially adopted by the State Cabinet in January 1997. A "Wildlife Master Plan Implementation Unit" was created that year, and it led to major legislative and other changes in 1998.

The Master Plan and its implementation by the Sarawak Government included a multi-faceted programme to reduce hunting pressure on parks. Core components were:

- controls of shotgun cartridges;
- banning wildlife trade of animals taken from the wild;
- education programmes;
- enforcement and patrolling;
- improved prosecution processes;
- formal participation in protected area management by local communities;
- development of alternative sources of protein and revenue for rural communities dependent on wildlife.

The hunting picture prior to 1997

Approximately 60,000 legally registered shotguns were in the State, with most being in the major towns of Kuching, Sibu, Serian, Baram, Kapit, Bintulu. In 1995, 2.5 million cartridges were imported, and 88% of all hunted animals died by gunfire.

In interior communities, wild meat was eaten in at least 20% of all meals, with the figure rising to 67% in remoter areas.

Prior to 1997, most protected areas were subject to legal and illegal hunting. This fell into the following main categories:

- legal subsistence hunting of unprotected species by people with gazetted rights;
- illegal hunting of totally protected species, or for trade, by people with gazetted rights;

- illegal hunting at non-designated areas within protected areas by people with gazetted rights;
- illegal hunting for subsistence or trade by local people without gazetted rights;
- illegal hunting by people from logging camps or towns, the hunting being for any combination of subsistence, sport and trade;
- hunting by Government staff, or for them by local people with gazetted rights.

Wildlife management measures for controlling hunting in protected areas Following adoption of the Wildlife Master Plan in 1997, many measures aimed to protect wildlife in protected areas from unsustainable hunting and wildlife trade have been implemented. The main ones have been:

- cartridge controls. The number of cartridges which people can buy has been restricted to ten per gun owner per month. This has resulted in total imports declining from 2.5 million in 1995 to 0.5 million in 2000. Surveys of the 18 largest District Offices in the State showed that from 1997 to 2001, 50% of the Offices reported reductions in sales. The largest reductions were in major towns Sibu by 70% and Miri by 78%. Black-market prices of cartridges increased from \$0.40 to \$7.00. Other results of the strict cartridge controls include: a probable decline in sport hunting; people focusing their hunting more on larger animals (especially bearded pigs) as it means more meat per cartridge which reduces pressure on vulnerable species such as primates and fruit bats; and potentially more wildlife in the permanent forest estate for local people, which might in turn reduce hunting pressure on protected areas;
- passing by the State Parliament of the Wild Life Protection Ordinance 1998.
 Among its many measures was a total legal ban on all commercial sales of mammals, birds, reptiles and amphibians, their parts or deivatives if the animals was taken from the wild. This plus the National Parks and Nature Reserves Ordinance 1998 also authorized local communities to become involved formally in management of protected areas, and to receive benefits from them;
- education. Multi-faceted education programmes have included press releases, mobile exhibitions, posters and brochures in a range of formats and languages, tailor-made education programmes in rural communities, and education packs for schools and rangers;
- enforcement and patrolling. This has led to greatly increased seizures of wild meat under the new law. Amounts seized have been: 1,025 kg in 2001; 198 kg in 2002; and 135 kg in 2003 (up to September);
- better prosecution procedures. These have been facilitated by creation of a DNA library, and conducting training courses for rangers on wildlife identification, and more detailed courses for selected senior staff with potential to be expert witnesses. This has resulted in the seizure of three vehicles; issuing of 30 compounds and nine court cases in 2001; seizure of three vehicles and five shotguns and issuing of 13 compounds in 2002; and three arrests and five summonses to date in 2003;
- where appropriate, testing schemes to develop alternative sources of protein and revenue for local communities. A pilot programme for alternative protein at Mulu National Park has proved problematic due to cultural taboos and inertia, although programmes for ecotourism and loofah production at Batang Ai National Park have met with greater success.