

## Kenya

## Wildlife Conservation

## Project Sites

Nairobi National Park, Tsavo East National Park  
and Tsavo West National Park



## 1. Background and Objectives of Evaluation Survey

The natural environment is directly connected to human security issues and is also indispensable for sustainable development. Therefore, further JICA contributions to the conservation of the natural environment, which is a global issue, are anticipated. As well as contributing to the maintenance of bio-diversity, wildlife conservation is also a method of securing income through the development of eco-tourism, and JICA should be actively involved in this field in the future.

Against this background, this thematic evaluation was implemented with the objectives of assessing collaboration between grant aid, individual experts and Japan Overseas Cooperation Volunteers (JOCV) as well as cooperation with wildlife conservation in Kenya with assistance from the World Bank and of acquiring lessons and recommendations that will be useful for implementation of cooperation in this field in the future.

## 2. Evaluated Projects

- Wildlife Conservation Project (FY1992, Grant aid)
- Maintenance of construction equipment and workshops (March 1993-March 1997, Individual experts).
- Maintenance of vehicles (March 1990-to present, JOCVs).

## 3. Members of Evaluation Team

### Team Leader:

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### Evaluation Planning:

Mr. Masahiko DOI, Office of Evaluation and Post Project Monitoring, JICA

### Impact Analysis:

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## 4. Period of Evaluation

18 November 1998-13 December 1998

## 5. Status of Wildlife Conservation in Kenya

### (1) General Trends

There was a great diversity of wildlife in East Africa, including Kenya. With the development promoted by white colonists from the beginning of the 20th century, the existence of this wildlife came under serious threat. As a result, there was sharp decline in wildlife in Kenya and in 1946 the Nairobi National Park was established as East Africa's first national park as part of a wildlife conservation policy.

At the time of Kenya's independence in 1963, Jomo Kenyatta, the first president, stated that wildlife and nature were Africa's heritage and would be protected on behalf of the people of the world, developing a policy that focused on conservation. After independence, many new national parks and national conservation areas were established, and there are currently 54 such parks.

In 1977, the Kenyan government totally outlawed the hunting of wildlife, which had taken place all over the country previously, and the sale or ownership of wildlife products and established the Wildlife (Conservation and Management) Act, which limited the use of wildlife to tourism. The current wildlife protection system is based on this act. As a result, the number of tourists increased year by year, and since 1989, tourism had been the country's second biggest source of foreign currency after agriculture.

However, at the beginning of the 1980's in addition to large scale organized poaching, wildlife conservation activities stagnated due to corruption at the Wildlife Conservation Management Bureau, which was in charge of the protection of wildlife, the inefficient operations and a decline in the morale due to a lack of funding. Due to poaching, there was an appreciable decline in the number of endangered animals, particularly the black rhinoceros and the African elephant, and the basis of the tourism industry, which was important for the national economy, faced a serious crisis.

Under such situations, the Kenyan government abolished the ineffective Wildlife Conservation and Management Department (WCMD) in 1990 and established the Kenya Wildlife Service (KWS), an independent public entity, and has

been attempting to rebuild the administration of wildlife conservation.

**(2) Outline of the Kenya Wildlife Service (KWS)**

The KWS is a single blanket organization established in 1990 with the objectives of improving the management of national parks and protection areas, preserving wildlife and ensuring the safety of tourists. In the same year, the KWS produced The Kenya Wildlife Service Policy Framework and Development Program, 1991-1996. This is generally dubbed the "Zebra Book" and contains the guiding principles for the organizational reform and activities of the KWS.

However, the KWS has suffered from chronic deficit financing, and although it has attempted to cut the number of its employees in order to reduce expenditure, the improvement of its finances remains difficult due to a decline in tourists. The organizational reforms to achieve financial improvement have undergone changes in policy due to changes in the president and since Richard Leakey, the current president, was appointed a review of organizational reform and management policies has been initiated.

**6. Results of Evaluation**

**(1) Background and Outline of Cooperation**

From the beginning of 1980, the Kenyan economy entered a recession due to a decline in agricultural production because of drought, climbing crude oil prices as a result of the oil crisis,

**Figure 1 Outline of Japan's cooperation with wildlife conservation in Kenya.**

<b>Overall Goal</b>	
<ul style="list-style-type: none"> <li>• Wildlife is protected and bred.</li> <li>• Tourism industry is developed and economic independence for the KWS is established.</li> </ul>	
<b>Project purpose.</b>	
To facilitate the smooth implementation of wildlife conservation activities in the three national parks.	
<b>Outputs.</b>	
<ul style="list-style-type: none"> <li>• Equipment needed for park maintenance and convention of poaching is appropriately supplied.</li> <li>• Equipment maintenance technology is improved.</li> </ul>	
<b>Inputs.</b>	
<b>Japanese Side</b>	<b>Kenyan Side</b>
<ul style="list-style-type: none"> <li>• Long term experts: 1.</li> <li>• JOCVs: 8.</li> <li>• Grant aid: 722 million yen.</li> </ul>	<ul style="list-style-type: none"> <li>• Counterparts.</li> <li>• Local costs.</li> </ul>



KWS headquarters

and a deterioration in the domestic situation. Therefore, there was a pressing need to increase income from the tourism sector in order to improve government finances. In 1990, the Kenyan government formulated the Kenya Wildlife Service Policy Framework and Development Program, 1991-1996 with the support of the World Bank, as the overall master plan for the conservation of wildlife in Kenya. This Wildlife Conservation Plan sought the collaboration of donors and international organizations in their respective individual programs with the ultimate objective of conserving wildlife. As well as the dispatch of JOCVs for the maintenance of vehicles, Japan provided the equipment needed for the maintenance of basic facilities in the national parks, primarily roads and for the prevention of poaching, through grant aid, with the objective of facilitating the smooth implementation of wildlife protection activities in the Nairobi National Park, the Tsavo East National Park and the Tsavo West National Park. In addition, a specialist in construction equipment was dispatched to KWS headquarters with the objective of providing maintenance training for the construction equipment and tractors administered by the KWS. An outline of these series of cooperation is shown in Figure 1 and Figure 2.

**(2) Efficiency**

The equipment provided by grant aid was handed over to the Kenyan side as planned, in December 1993. However, the construction of a workshop by the Kenyan side was behind schedule, so the equipment was thought to be reassigned after the workshop was completed. In this evaluation, it was pointed out that fittings and spare parts were not allocated to the

**Figure 2: The schedule of the Japanese side inputs for wildlife conservation.**

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Grant aid (722 million Yen).			Wildlife Conservation Project.							
Individual expert (one).				Construction equipment and workshop maintenance.						
JOCVs. (Vehicle maintenance, eight).			Nairobi National Park.							
			Tsavo West National Park.							
			Tsavo East National Park.							

workshops in the initial plans. However, it is believed that the cause of the confusion was the delay in workshop construction. In grant aid, the management of equipment following the transfer is the responsibility of the partner country. In the case that the equipment management system in the partner country differs from the initial plan at the time of transfer, it is important to adequately discuss the management system after the transfer, including the management of fittings and spare parts, with the partner country.

This cooperation involved collaboration between grant aid, individual expert and JOCVs. The parks were selected for grant aid where JOCVs had been sent for long-term assignments to their workshops and provided training in the maintenance, repair and management of equipment. In addition, the individual expert gave instruction on the construction equipment, tractors and generators managed by the KWS including construction equipment provided by grant aid. In general, at workshops with local staff only, it is not uncommon for equipment to break down or become lost due to inexperience in basic operating methods and management of equipment. However, the collaboration in this cooperation made a significant contribution to the effective use of the equipment provided.

The equipment provided, such as trucks, took account of the environment in Kenya and was basically for use in tropical, dusty and high altitude locations. In addition to poaching prevention activities, wildlife protection activities and road maintenance activities, the equipment has a high level of use overall in park management and in equipment maintenance.

However, there have been some breakdowns because operators have not learnt the basic equipment operations, and it is important to teach the operators the appropriate method of operation in collaboration with JOCVs assigned to the workshops.

### (3) Effectiveness

As the project purpose was to facilitate the smooth implementation of wildlife protection activities in Nairobi National Park, Tsavo East National Park and Tsavo West National Park, this evaluation verified the status of the equipment provided being used at the KWS.

#### 1) Vehicles

The vehicles provided are being used for poaching prevention activities, park management activities and the



Tsavo East National Park Workshop

transport of employees. Table 1 shows the number of vehicles at each park and the average distances traveled. The pick-up trucks have traveled the greatest distances and in Tsavo East National Park and Tsavo West National Park, the averages are over 200,000 kilometers with some vehicles exceeding 300,000 kilometers. Other vehicles have an average distance traveled of 100,000 kilometers, averaging out to 20,000 kilometers per year. Given the harsh weather and road conditions in Kenya's national parks, the vehicles provided are being adequately used.

#### 2) Equipment for Road Maintenance and Management.

The establishment of infrastructure for tourists, particularly roads for tourists, has an extremely significant impact and the improvement of roads is an important factor in increasing the number of tourists. The actual results for road repair work in each park are shown in Table 2 and the number of graders provided for each park, the road distances and the actual work distances are shown in Table 3.

In terms of grading, the actual grading work for each vehicle in each park varies significantly from 1600 kilometers in Tsavo West National Park to 700 kilometers in Tsavo East National Park. A further breakdown of this information shows that in Tsavo West National Park, one grader covered the entire road distance within the park in five years. Further, in Nairobi National Park, since the equipment was provided, a total road length of 210 kilometers has been graded a year. However, compared to Tsavo West National Park, Tsavo East National Park is less than half the work distance per vehicle.

**Table 1 Number of vehicles at each park and average distances traveled**

	Nairobi National Park		Tsavo East National Park		Tsavo West National Park Workshop	
	Number of vehicles	km	Number of vehicles	km	Number of vehicles	km
Motorbikes	3	12,921	5	16,299	3	31,806
Pick-up trucks	9	187,109	11	285,623	12	246,211
Station wagons	3	101,424	1	152,480	1	106,586
Buses	1	95,645	1	114,859	1	101,430
Trucks	3	59,659	5	107,568	5	101,430
Dump trucks	2	93,169	3	100,849	2	108,040

Tsavo East National Park is Kenya's largest in terms of area and the north area of the park is especially poorly equipped with roads. The construction of new roads has been the primary focus, which is considered the reason for the low grading results so far.

In terms of simple paving work, in the initial plan, each park was scheduled to implement a 20 kilometer section each year. The goal has been achieved with the exception of Tsavo East National Park. Road construction work has proceeded as initially planned in Nairobi National Park and Tsavo West National Park. As the construction of new roads has been the main focus so far in Tsavo East National Park, there have been few results in terms of repair work using the equipment provided. With grading of newly built roads and increased simple paving work anticipated in the future, there is a need to consider assistance for recruiting and training machine operators in order to achieve more effective use of the equipment.

#### (4) Impact

The vehicles provided by grant aid are being used in the day-to-day management of the parks and poaching prevention work. Further, in a World Bank review of this cooperation, the provision of vehicles through grant aid received a high evaluation as improving the efficiency of KWS staff activities as well as raising staff morale.

In terms of poaching, interviews conducted during the field survey confirmed that there was hardly any commercial poaching in the three parks targeted by the cooperation. In particular, elephant poaching had been common both inside and outside the Tsavo East National Park but has recently decreased.

Moreover, in the past, the roads inside the parks and access to the parks had been a cause of frequent complaint from



A graded road

tourists, but, tourists have responded positively to the recent improvements in the roads.

As well as facilitating poaching conservation activities, the progressive provision of roads has ensured the safety of tourists and contributed to increasing levels of tourist satisfaction.

#### (5) Relevance

Japan's cooperation with the wildlife conservation field in Kenya is based on a plan formulated with the assistance of the World Bank and was implemented with a focus on the provision of equipment through grant aid, achieving the results described previously. While these results are on a local level, and bare no relation to the fundamental improvement of the overall KWS organization, cooperation based on provision of equipment, an expert and JOCVs is considered to be an effective approach to strengthen the wildlife protection activities at the KWS in light of its current difficulties in achieving organizational and institutional reform and improvement.

**Table 2 Road repair work by park (kilometers)**

	1994	1995	1996	1997	1998	Total
Grading.						
Nairobi National Park.	131	126	91	218	268	834
Tsavo East National Park.	349	554	671	391	251	2,216
Tsavo West National Park.	183	356	588	1,346	850	3,323
Total.	663	1,036	1,350	1,955	1,369	6,373
Simple paving.						
Nairobi National Park.	19	34	31	30	22	136
Tsavo East National Park.	0	0	10	15	0	25
Tsavo West National Park.	5	22	32	41	20	120
Total.	24	56	73	86	42	281

**Table 3 Road distances and grading results (kilometers) in each national park**

	Total road distance	Total work distance	Number of graders	Work distance per grader
Nairobi National Park	210	834	1	834
Tsavo East National Park	2,055	2,216	3	739
Tsavo West National Park	1,368	3,326	2	1,663



The preservation of the earth's environment is a global issue. There is a need for Japanese ODA policy to continue cooperation with a focus on conservation of the natural environment, such as maintenance of biodiversity and preservation of forests, meaning that this cooperation is highly relevant.

### (6) Sustainability

Kenya has a great interest in wildlife conservation activities. The KWS faces numerous problems including the inefficiency of operations, corruption within the organization and the shortage of information. Its activities are scrutinized by Kenya's mass media, NGO's, donor nations and aid organizations and are frequently the target of criticism. However, albeit gradually, the KWS has been working to improve its organization.

The number of technicians in the workshops in the three parks where equipment was provided using grant aid are shown in Table 4. It is considered that each workshop has adequate staff members to maintain the assigned equipment. The reason why the Nairobi workshop has as many as fifty one employees is that it caters to requests for major repairs from other workshops. JOCVs are also given long term assignments at these workshops, and currently there are no technical problems. However, at present, the KWS is conducting organizational reform including staff cuts and there is a need to further increase the skills and training of KWS employees not only in technology, but also in workshop management in order to achieve effective use of the equipment.

The World Bank anticipated financial independence at the KWS by FY1998/1999. However, fund management remains tight due to decreased income because of a decline in tourist numbers, increased expenses for senior staff and a decline in aid from donors. Looking at revenue and expenditure for FY1997/1998, while the income of the KWS was 715 million Kenyan shillings, personnel expenses were 753 million shillings and it operated with a deficit of 985 million Kenyan shillings. With 10 million Kenyan shillings from the Kenyan government and 472.5 million Kenyan shillings from donors, the current balance was 184 million Kenyan shillings deficit. The KWS has been working to improve its finances but, external factors such as a slump in park admission fees due to the decline in foreign tourists and reduced aid funds from donors, mean that financial independence will be difficult for sometime to come.

The financial problems at the KWS also have an impact on the maintenance of equipment. Because budget allocations to the workshops are low, there are some vehicles and construction equipment which can no longer be used because spare parts and consumables such as tires and oil cannot be purchased. Moreover, it has been five years since the vehicles were provided and as some vehicles have traveled over 300,000 kilometers, they require an overhaul, but the necessary funds are not available.

The KWS, which operates with a chronic deficit, will not function without support from external organizations. Donors and NGO's are keeping an eye on the guiding principles and direction of reform of the KWS under its new president.



A paved road

**Table 4 Numbers of technical staff at each park (FY 1998).**

Nairobi National Park	Tsavo East National Park	Tsavo West National Park
51	16	14

## 7. Lessons Learned and Recommendations

### (1) Collaboration between Aid Schemes

The equipment provided by grant aid is being used effectively in the national parks and workshops, significantly contributing to improved poaching prevention and park management operations. The dispatch of an expert and the JOCVs has played a major role in the achievement of the goal. JOCVs have been given long term assignments in the workshops of the three national parks where equipment was provided. In addition to technology for servicing inspection and repair of equipment, they have contributed to the establishment of management systems for spare parts, for example, laying the groundwork for the reception of the equipment. Meanwhile, from the perspective of the JOCVs, because new equipment was provided, the technical transfer was easy. As a result, in this project, the provision of equipment and the dispatch of JOCVs have worked to mutually compliment each other.

In the future, when equipment is provided using grant aid, it will be effective to achieve a seamless collaboration between aid schemes, including the systematic dispatch of experts and JOCVs and their participation from the equipment selection stage. In particular, in order to facilitate long term usage of equipment under harsh conditions, it is necessary to take adequate account of the opinions of experts and JOCVs assigned to the local area and to make an effort to select equipment which is actually needed in the local area. The specification of equipment used in Africa and particularly in the harsh conditions of the national parks may go beyond simply the tropical specifications envisaged in Japan.

### (2) Continued Cooperation

The cooperation in wildlife conservation looked at in this evaluation may be a model case in the environment conservation field in which there is a great diversity of cooperation. The provision of equipment to support protection activities is only

a small part of activities aimed at wildlife conservation, but through this cooperation, there was a significant impact on KWS staff members including increased staff morale and increased work efficiency. In particular, as the organizational reform of the KWS itself has made little progress, it is considered an effective approach in the short term.

On the other hand, there is a limit to the continuation of cooperation involving the provision of equipment. Naturally, it is impossible to provide equipment to all the national parks in Kenya, and equipment provided will also age. Accordingly, from a long term prospective, there is a need to shift cooperation towards encouraging improvements in management, including improvements in the KWS management system and fee collection system and the commercialization of workshops.

In the future, the KWS is expected to make gradual reforms and with these reforms, it is forecast that needs for human resource development and training will increase. When implementing cooperation in these fields, continuation and expansion of an individual expert and JOCVs currently dispatched will be desirable in order to accurately assess needs.

### **(3) Need for Follow-up**

An obstacle to the future use of the equipment provided with grant aid is the financial difficulties of the KWS. With the number of foreign tourists in 1998 being 60% of those in 1997, it is unlikely that there will be a rapid improvement in finances. Due to a shortage in funds for purchase of spare parts and overhauls, there have also been inadequate maintenance and repairs of vehicles. It is five years since the vehicles provided went into use and during that time, they have been used in harsher conditions than envisaged, including on substandard roads and use in emergencies, such as forest fires.

To allow even more efficient use of the equipment, it will be effective to provide cooperation where necessary<sup>1)</sup>.

### **(4) Cooperation Focused on Sustainability**

One of the major issues in the wildlife conservation field is economic sustainability. In Kenya, the development of financial sustainability for the KWS is likely to be extremely difficult. As a result, in order to promote cooperation in this field, it is important to implement cooperation, which focuses on the development of independence in the partner country's implementing organizations, including institutional reform from a long-term perspective.

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<sup>1)</sup> Follow-up cooperation was implemented in FY1999 with the provision of spare parts and supplies.