

**Staff Development and Training Needs Assessment
For Department Of Wildlife Conservation, Sri Lanka**

Prepared Under The Auspices Of
The Sri Lankan Department Of Wildlife Conservation
And
The U.S. Fish and Wildlife Service

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By

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U.S. Fish and Wildlife Service**

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And

The Staff Of The Sri Lankan Department Of Wildlife Conservation

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Introduction

An agreement between the U.S. Agency for International Development (USAID) and the U.S. Fish and Wildlife Service (USFWS) was developed in 1990 to conduct a series of workshops and training programs for the Department of Wildlife Conservation (DWLC) of Sri Lanka. One of the objectives of the agreement was to have a multiagency team from the United States work with the DWLC to identify DWLC training needs and develop recommendations that would assist DWLC in meeting the goals established in the National Policy for Wildlife Conservation of Sri Lanka.

The team assigned for this task included Roger Johnson, Klamath Basin National Wildlife Refuge, U.S. Fish and Wildlife Service; Charles Solomon, National Ecology Research Center, U.S. Fish and Wildlife Service; and Dr. R. Rudran, Conservation Officer, Smithsonian Institution, Washington, D.C. and their local DWLC counterparts. To fulfill its responsibilities, the team held several meetings and interviews with government officials, nongovernmental organizations, and private consultants in Sri Lanka from 15 January to 29 January, 1991. Most of the interviews were scheduled by Mr. Wasantha Perera, the team's local counterpart and Assistant Director of Training, DWLC. The others were unscheduled interviews that were possible during chance meetings between the U.S. team and local personnel.

Specific goals of the team were:

- 1. Interview a wide range of DWLC staff, from the Director through field staff, to determine training needs and define their priorities.**
- 2. Interview representatives from various conservation organizations, universities, and private consultants to determine availability of training staff and expertise within Sri Lanka.**
- 3. Submit recommendations to enhance the technical and operational capabilities of the DWLC and make the Department self-reliant in satisfying its own training needs.**

This report contains the information compiled during the meetings and interviews conducted in relation to the above goals.

Survey of Training Needs

Meetings during the first two days occurred in Colombo at the offices of the Secretary, Lands, Irrigation, and Mahaweli Development; the Central Environmental Authority; and the March for Conservation, a nongovernmental organization (Appendix A). Later the team members traveled to Kandy where they met with several professors at the University of Peradeniya to identify local personnel resources. Next, the team traveled to Horton Plains, Randenigala, and Ruhunu National Parks to meet with a wide range of DWLC staff members (Appendix B). The staff members who attended the meetings represented trade unions within the DWLC and all 12 categories of field and technical staff of the Department. Upon returning to Colombo, the team also met with the Deputy Director, Administration, to identify his division's training needs (see Appendix B). Additionally, the team met regularly with the Director, DWLC, in Randenigala and Colombo and received his input regarding training. The itinerary for the team is summarized in Appendix C.

The purpose of conducting the interviews was to allow the team to obtain first-hand knowledge and understanding of DWLC staff interests, concerns, and abilities. It was evident that the personnel who met with the team members appreciated the opportunity to participate in the formation of their training program. Several excellent recommendations were received and this information was then compiled and used in developing the training plan.

Results of Survey

A total of 71 DWLC staff members were interviewed during the meetings in Colombo, and Horton Plains, Randenigala, and Ruhunu National Parks (Appendix B).

The participants of the meetings identified 36 separate topics as potential training courses or workshops. These topics were subdivided into three major categories: general (9); technical (17); and support services (10). Based on discussions between team members, the Director, and staff of DWLC, each topic was assigned as compulsory or elective relative to each job classification within DWLC (Tables 1, 2, and 3).

After the meetings at Randenigala and Ruhunu National Parks, we requested all 60 DWLC participants at these two parks to vote for the five highest priority topics which would enhance the performance of their official responsibilities. Table 4 represents a summary of those topics receiving 10 or more votes.

The results clearly indicate that orientation, language, first aid, and law enforcement are the highest priority among those sampled. However, the voting was skewed due to an

unequal representation of participants within each job category. The team requested that Mr. Perera analyze the votes to determine a more accurate reflection of priorities within each job category.

Team members discussed each of the 36 topics (Appendix D) and prepared a workshop outline that addressed objectives, course content, resource personnel, duration, and target audience (Appendices E and F). These outlines can be used by DWLC for developing individual courses or workshops. The requirements of each functional unit within DWLC for training in these 36 topics has been summarized in Table 5.

Recommendations

1. Courses should be interactive and include a field or laboratory component as appropriate to each topic.
2. The experts identified to teach each course should attend a specialized course on the techniques of workshop presentation. Training requires specialized skills for the preparation and presentation of materials that many technical experts or researchers may not be aware of.
3. Development and use of a course evaluation will be critical to the ultimate success of the DWLC training program. The evaluation should contain elements that value both course content and the instructor(s). Additionally, an evaluation of the trainers comprehension of the course materials can be used to modify course materials and used as a basis for promotions within DWLC.
4. The training staff or individual instructors for each course should use the objective(s) and content provided within Appendix E only as a guideline. Including additional objectives and content will be necessary to establish a functional course.

5. A permanent staff of trainers who can conduct courses as well as organize and coordinate courses is highly recommended. An effective training program requires that these components be in place prior to initiating a major training program.
6. Use of highly trained and skilled DWLC staff in conducting training would enhance the effectiveness of the training program. These staff may only be involved in training during 1-4 weeks each year. The remainder of the year they would be associated within their respective offices.
7. Continue to provide the opportunity for DWLC staff to attend post-graduate training at foreign universities. Infusion of new and/or advanced technologies and ideas will provide a continued source of growth within the Department.

Table 1. Training needs, topics - general.

Topic	Carpenter	Mason	Office watcher	Storeman	Permanent laborer	Bungalow keeper	Driver	Game guard	Range assistant	Ranger	Assistant Director technical	Assistant Director regional	Head office
G1 Orientation	C ^a	C	C	C	C	C	C	C	C	C	C	C	C
G2 Law enforcement	-	-	-	-	E ^b	-	-	C	C	C	C	C	-
G3 Firearms	-	-	C	-	-	-	-	C	C	C	E	E	E
G4 First aid	C	C	C	-	C	C	C	C	C	C	C	C	E
G5 Jungle craft	E	E	-	-	C	-	-	C	C	C	C	C	-
G6 Typing	-	-	E	E	-	-	-	-	-	E	E	E	E
G7 Computer I	-	-	-	E	-	-	-	-	-	E	C	C	E
G8 Computer II	-	-	-	E	-	-	-	-	-	E	C	C	-
G9 Language	-	-	-	E	E	C	E	E	E	E	E	E	E

^aC = Compulsory

^bE = Elective

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Table 2. Training needs, topics - support services.

Topic	Carpenter	Mason	Office watcher	Storeman	Permanent laborer	Bungalow keeper	Driver	Game guard	Range assistant	Ranger	Assistant Director technical	Assistant Director regional	Head office
S1 Administration and accounting	-	-	-	E ^a	-	-	-	-	C ^b	C	C	C	E
S2 Stores Inventory	C	-	-	-	-	-	-	-	-	-	-	-	E
S3 Fire fighting I	-	-	-	-	C	-	E	C	C	C	-	-	-
S4 Fire fighting II	-	-	E	-	E	C	-	-	-	E	-	-	E
S4 Vehicle maintenance	-	-	-	-	-	-	C	-	E	E	-	-	-
S6 Equipment use and maintenance	-	-	-	C	E	-	-	E	E	E	E	E	-
S7 Infrastructure maintenance	E	E	-	-	E	C	-	-	E	E	-	-	E
S8 Housekeeping	-	-	-	-	E	C	-	-	-	-	-	-	-
S9 Mahout training	-	-	-	-	E	-	-	E	E	E	-	-	-
S10 Engineering and surveying	-	-	-	-	-	-	-	-	E	E	-	-	-

^aE = Elective

^bC = Compulsory

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Table 3. Training needs, topics - technical.

Topic	Carpenter	Mason	Office watcher	Storeman	Permanent laborer	Bungalow keeper	Driver	Game guard	Range assistant	Ranger	Assistant Director technical	Assistant Director regional	Head office
T1 Biology	-	-	-	-	E ^a	E	-	C ^b	C	C	-	-	-
T2 Field ecology	-	-	-	-	-	-	-	C	C	C	C	C	-
T3 Conservation biology	-	-	-	-	-	-	-	-	E	C	C	C	-
T4 Faunal techniques	-	-	-	-	E	-	-	E	E	C	E	E	-
T5 Plant techniques	-	-	-	-	E	-	-	E	E	C	E	E	-
T6 Resource inventory	-	-	-	-	-	-	-	E	C	C	E	C	-
T7 Museum curation and taxidermy	-	-	-	-	E	-	-	E	E	E	E	C	-
T8 Habitat management	-	-	-	-	-	-	-	E	C	C	C	C	-
T9 Endangered species	-	-	-	-	E	-	-	E	E	C	C	C	-
T10 Veterinary care	-	-	-	-	E	-	-	E	E	C	E	C	-
T11 Public education and interpretation	-	-	-	-	E	-	-	E	C	C	C	C	-
T12 Park planning	-	-	-	-	-	-	-	-	E	C	E	C	-
T13 Scientific writing	-	-	-	-	-	-	-	E	E	E	C	C	-
T14 Wildlife certificate	-	-	-	-	E	E	E	E	E	E	-	-	-
T15 Diploma	-	-	-	E	E	E	E	E	E	E	-	E	-
T16 Graduate study	-	-	-	-	E	E	E	E	E	E	-	E	-
T17 Post graduate	-	-	-	-	-	-	-	-	E	E	C	E	-

^aE = Elective

^bC = Compulsory

Table 4. List of top priority training topics based on voting by DWLC staff

TOPIC#	TITLE	VOTES
G-1	Orientation	40
G-9	Language	28
G-4	First Aid	26
G-2	Law Equipment	25
G-5	Vehicle Maintenance	18
T-9	Endangered Species Management	15
S-3	Fire Fighting I	12
T-11	Public Education & Interpretation	11
T-14	Wildlife Certificate	11
T-18	Habitat Management	10
G-3	Firearms Training	10

These priorities provide only a general trend since the number of individuals within each job category were not proportionally represented. The voting included DDs and ADs (7), Rangers (8), Range Assistants (5), Game Guard (16), Drivers (6), Permanent Laborers (13), Masons (2) and Office Watchers (1).

TABLE 5: TRAINING REQUIREMENT OF FUNCTIONAL UNITS OF DWLC

FUNCTIONAL UNIT	GENERAL (G)									SUPPORT SERVICES (S)										TECHNICAL (T)																
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Administration	X	X	-	-	-	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	X	X	-	X	X	X	-	X	X	X
Training	ALL									ALL										ALL																
Publicity	X	-	-	-	-	X	X	X	X	-	-	-	-	-	-	-	-	-	-	X	-	X	-	-	-	-	X	-	X	X	X	-	X	X	X	
Education	X	-	-	X	-	X	X	X	X	-	-	-	-	-	-	-	-	-	-	X	X	X	-	-	-	-	X	-	X	X	X	X	X	X	X	X
Research	X	-	-	X	-	X	X	X	X	-	-	-	-	X	-	-	-	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12 Park Planning	X	-	-	-	-	X	X	X	X	X	-	-	-	-	-	-	-	-	X	-	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X
Wildlife Monitoring	X	-	X	X	X	X	X	X	X	-	-	-	-	X	-	-	-	-	-	-	X	-	X	X	X	X	X	X	-	X	X	X	X	X	X	X
Wildlife Management	X	X	X	X	X	X	X	X	X	X	-	X	-	-	X	-	-	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Wildlife Protection	X	X	X	X	X	X	X	X	X	-	-	X	-	X	X	-	-	X	-	X	X	X	X	-	X	X	-	X	-	X	X	X	X	X	X	X
Veterinary	X	-	-	X	X	X	X	X	X	-	-	-	-	X	-	-	-	-	-	-	X	-	X	X	-	X	X	X	X	-	X	X	X	X	X	X
Wildlife Trade	X	-	-	X	-	X	X	X	X	X	-	-	-	X	-	-	-	-	-	-	-	X	X	-	X	X	-	X	-	X	X	X	X	X	X	X
Endangered Species Mgmt.	X	X	X	X	X	X	X	X	X	-	-	-	-	X	-	-	-	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Wetland	X	X	-	X	X	X	X	X	X	-	-	-	-	X	X	-	-	-	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X
Coastal & Marine	X	X	-	X	X	X	X	X	X	X	-	-	-	X	-	-	-	-	-	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X
Special Projects	X	-	-	-	-	X	X	X	X	-	-	-	-	X	-	-	-	-	-	ALL																
Regional Units - 7	ALL									ALL										ALL																

APPENDIX A. List of Non DWLC Personnel Interviewed by Staff Development & Training Assessment Team

1. William A. Jeffers, Chief, Office of Project, USAID
2. Mr. Malcom Jansen, Project Officer, USAID
3. Prof. Arudpragasam, Chairman, Central Environmental Authority
4. Dr. Thusitha Peries, Coordinator, March for Conservation
5. Dr. Vijitha Kuruwita, Faculty of Vet. & Medicine,
University of Peradeniya
6. Prof. S. Balasubramanium, Department of Botany,
University of Peradeniya
7. Dr. Nimal Perera, Post Graduate Institute of Agriculture,
University of Peradeniya
8. Dr. Kalyanie Perera, Post Graduate Institute of Agriculture,
University of Peradeniya
9. Dr. W. Jayathilake, Post Graduate Institute of Agriculture,
University of Peradeniya
10. Mr. Anura Weerasinghe, Department of Botany,
University of Peradeniya
11. Mr. Daya Bandula, Dept. of Botany,
University of Peradeniya
12. Mr. H.D. Rathnayake, Dept. of Botany,
University of Peradeniya
13. Ms. Kumudu Rajapaksa, March for Conservation
14. Ms. Neela De Soysa, March for Conservation
15. Mrs. Indrakanthie Perera, March for Conservation
16. Mr. Dharmin Samarajeewa, March for Conservation
17. Dr. Nirmali Pallewatta, Dept. of Zoology,
University of Peradeniya

18. Dr. R. Breckenridge, Dept. of Zoology,
University of Peradeniya
19. Dr. R. Raheem, Dept. of English, Open University
20. Mr. Childers Jayawardena, AD (Ret'd) DWLC
21. Mr. Shirley Perera, AD (Ret'd) DWLC

APPENDIX B. Ministry & DWLC Personnel Interviewed to Identify Departmental Training Needs

Ministry of Lands, Irrigation and Mahaweli Development

1. Mr. A.A. Wijetunge - Secretary Lands, Irrigation & Mahaweli Development
2. Mr. D.G. Premachandra - Secretary Lands and Lands Alienation
3. Mr. S. Medawewa - Director Forestry & Environment

Senior Staff Department of Wildlife Conservation

1. Dr. S.W. Kotagama - Director DWLC
2. S.D. Chandradasa - Deputy Director (Administration)
3. K.A. Amaratunge - United Game Ranger's Association & A/D (E.R.)
4. K.C. Samson - A/D (Mahaweli)
5. W. Hendawitharena - A/D (F.O.)
6. H.D.V.S. Vattala - A/D (Park Planning)
7. T.M.E. Nanayakkara - A/D (Educ. & Pub.)
8. Nandana Atapattu - D/D (Vet. & Res.)
9. S.R.B. Dissanayeke - A/D (Res.)
10. M.M.W.D.S. Perera - A/D (Training)
11. C.P. Attanayeke - D/D (Field Operation)

Wildlife Ranger/Park Warden

1. B.V.R. Jayaratne - DP/W Ruhuna N.P.
2. J.H.B. Tissera - DP/W -do-
3. S.A. Jinadasa - P/W Galoya N.P.

- | | | |
|------------------------|---|----------------------------|
| 4. S.D.D. Laxman | - | P/W Wasgomuwa N.P. |
| 5. B.A. Muthu Banda | - | (DWLC Officers Union) |
| 6. A.H. Sumanasena | - | (Game Rangers Association) |
| 7. Edmund Wilson | - | (-do-) |
| 8. Chandra Jayawardena | - | P/W Maduruoya N.P. |
| 9. I.D. Jayaweera | - | P/W Horton Plains N.P. |

Wildlife Ranger Assistants

- | | | |
|---------------------------|---|------------------------------|
| 1. M.R. Mohamed | - | (WRAA Union of DWLC) |
| 2. A.M. Dayananda | - | (-do-) |
| 3. D. Pathiraja Darmasiri | - | Training Centre, Randenigala |
| 4. Nandana De Zoysa | - | (-do-) |
| 5. A.V.A.K. De. Zoysa | - | (-do-) |
| 6. K.A. Somadasa | - | Horton Plains N.P. |

Drivers

- | | | |
|-------------------------|---|----------------------------------|
| 1. A.P. Ediee | - | Ruhunu N.P. |
| 2. Jayasiri Weerasinghe | - | (-do-) |
| 3. W.L.A. Gnanadasa | - | (-do-) |
| 4. U.H. Premasiri | - | (-do-) |
| 5. G. Danasiri | - | Training Centre Randenigala |
| 6. P.D. Leslie | - | Head Office (Drivers Union DWLC) |

Game Guards

1. W. Piyasiri - Ruhunu N.P.
2. Jayantha Senevirathna - (-do-)
3. W.N.D. Tilakeratna - (-do-)
4. D.M. Tilakerathna - (-do-)
5. M. Ranjith - (-do-)
6. E. Abeydeera - (-do-)
7. Ariyasena Gamage - (-do-)
8. S.M. Premasiri - (-do-)
9. W. Ariyadasa - (-do-)
10. P.G. Mahendra - (-do-)
11. M.V. Chandrapala - (-do-)
12. M.G. Premadasa - (-do-)
13. K.A. Chandrasiri - Training Centre, Randenigala
14. Nawarathna Bandara - (-do-)
15. T.P. Dayarathna - (-do-)
16. W.A. Sunil Kithsiri - (-do-)
17. M.M. Gamini Kumara - Horton Plains N.P.
18. M.A. Nimal Bandara - (-do-)
19. K. Gunasekera - (-do-)

Bungalow Keepers

1. Kuda Banda - (-do-)

Carpenter/Mason

1. B.J. Wickramanayeke - (-do-)

2. H.A. Karunapala Perera - (-do-)

3. P.D. Dayarathna - (-do-)

Office Watchers/Storeman

1. T.G. Ranansinghe - Ruhuna N.P.

2. Nimal Dharmasiri Pathirana - (-do-)

Labourers

1. K. Sarath Indrapala - Ruhunu N.P.

2. K.P.G. Sarath Wijetunga - (-do-)

3. G. Widanapathirana - (-do-)

4. W.A.H. Kapilarathna - (-do-)

5. N.T.P.G. Kalansooriya - (-do-)

6. K. Senarathna - (-do-)

7. H.M. Punchi Banda - (-do-)

8. J.K. Dayananda - (-do-)

9. K. Karunasena - (-do-)

10. S.M. Anura Bandara - (-do-)

11. G.M. Premarathna - (-do-)

12. Sumathipala Kularatna - (-do-)

13. G. Piyadasa - (-do-)

14. A.G. Ariyaratna - Training Centre, Randenigala

**Appendix C. Itinerary of Staff Development and
Training Workshop Team**

- 14 Jan** Arrive Colombo, at Hotel Oberoi, Colombo.
- 15 Jan** Meeting officers of USAID, University of Colombo, and March for Conservation. Meeting with research committee members of DWLC.
- 16 Jan** Meeting D/DWLC and Secretary, Ministry of Lands, Irrigation and Mahaweli Development. Proceeding to Kandy, night at Queens Hotel, Kandy.
- 17 Jan** Meeting with researchers at P.G.I.A. Meeting researchers at University of Peradeniya. Night at Queens Hotel, Kandy.
- 18 Jan** Field trip to Horton Plains. Farr Inn, Horton Plains National Park, interview Park Warden and staff.
- 19 Jan** Interview DWLC staff at Horton Plains and proceed to Randenigala. Night at Randenigala.
- 20 Jan** Review of staff training programs done so far and identify available facilities at the training center, meet with Director and M. Jansen, USAID. Night at Randenigala.
- 21 Jan** Interview with trade unions, PWW, and WRR. Randenigala.
- 22 Jan** Interview with Assistant Directors of the DWLC, travel to Yala.
- 23 Jan** Visit Yala N.P., interview with DWLC staff. At Yala N.P.
- 24 Jan** Proceeding back to Colombo via coastal route. At Oberoi, Colombo.
- 25 Jan** Meet with Director, DWLC, and report preparation. DWLC Headquarters. At Oberoi, Colombo.
- 26 Jan** Interview Deputy Director, DWLC, and report preparation, Headquarters. At Oberoi, Colombo.
- 27 Jan** Report preparation, DWLC Headquarters. At Oberoi, Colombo.

- 28 Jan Report preparation, DWLC Headquarters. Briefing to Director, DWLC and USAID.
- 29 Jan Refine tables and appendices, DWLC Headquarters.
- 30 Jan Submit report to Assistant Director, Training, DWLC, and return to USA.

APPENDIX D. List of Topic Outlines

GENERAL TOPICS:

- G1 Orientation
- G2 Law Enforcement
- G3 Fire Arm Training
- G4 First Aid
- G5 Jungle Craft
- G6 Typing
- G7 Computer Training 1
- G8 Computer Training 2
- G9 Language Skills

TECHNICAL TOPICS:

- T1 Basic Biology
- T2 Field Ecology
- T3 Conservation Biology
- T4 Faunal Survey Techniques
- T5 Plant Survey Techniques
- T6 Resource Inventory Preparation
- T7 Museum Curation and Taxidermy
- T8 Habitat Management
- T9 Endangered Species Management
- T10 Veterinary Care
- T11 Public Education & Interpretation
- T12 Park Planning

T13 Scientific & Proposal Writing

T14 Wildlife Certificate

T15 Diploma training

T16 Graduate training

T17 Post Graduate Training

SUPPORT SERVICES

S1 Administration & Accounting

S2 Stores Inventory Control Management

S3 Fire Fighting I

S4 Fire Fighting II

S5 Vehicle Maintenance

S6 Equipment Use & Maintenance

S7 Infrastructure Maintenance

S8 House Keeping

S9 Mahout Training

S10 Survey & Engineering

APPENDIX E: TOPIC OUTLINES

TOPIC G-1 - ORIENTATION

OBJECTIVES:

To provide an understanding of:

1. History of DWLC
2. Scientific background of nature conservation
3. The present status, goals, and objectives of DWLC; and the administrative and operational procedures of DWLC

CONTENT:

1. Basic theories on plant and animal evolution
2. Man and Biosphere
3. Unique features of wildlife heritage of Sri Lanka
4. Importance of wildlife conservation
5. Human conflicts with wildlife conservation in Sri Lanka
6. History and development of wildlife conservation sector in Sri Lanka
7. Overview of the legislation of wildlife conservation
8. New organizational structure, goals, and objectives of DWLC
9. Professional advancement
10. Inter-departmental cooperation
11. Administration of the DWLC

RESOURCE PERSONNEL:

LOCAL: Park Warden, Asst. Park Warden, Ranger, Game Guard

FOREIGN: Not required

DURATION: 2 Weeks

TARGET AUDIENCE:

Compulsory: Permanent Labourer, Game Guard, Range Assistant,
Ranger, Assistant Director (Technical), Assistant Director
(Regional)

Elective: Carpenter, Mason, Head Office Staff

TOPIC G-2 - LAW ENFORCEMENT

OBJECTIVE: To enable all DWLC Officers to be prepared, confident, and decisive in enforcing wildlife laws in Sri Lanka

- CONTENT:**
1. Review of laws, statutes, codes, ordinances, and regulations that DWLC Officers are authorized to enforce
 2. Identify type/kind of violations, frequency of violation, and species involved
 3. Raid and arrest procedures - restraints, questioning accused, rights of accused
 4. Procedures for recording statements, signed statements, complete information
 5. Gathering and preserving evidence - taking written notes, and preserving accurate descriptions, sketches and drawing of infringement, and safekeeping evidence
 6. Presenting evidence and testimony in court - prepare a practice session, attenders to participate in a moot court
 7. Self defense training - use of hands, feet, batons, stick, and rope
 8. Preventive enforcement
 - Foot patrol, sign posting, information dissemination, developing information network within the community
 - Environmental/conservation education involving A.D. public relations

RESOURCE PERSONNEL:

LOCAL: Experienced police and military personnel, court prosecutor,
senior officers of DWLC

FOREIGN: Not required

DURATION: 7 days

TARGET AUDIENCE:

Compulsory: Game Guard, Range Assistant, Ranger, Assistant Director
(Technical), Assistant Director (Regional)

Elective: Permanent Labourer

TOPIC G-3 - FIREARMS TRAINING

OBJECTIVE: Provide training in the safe operation and maintenance of hand-held firearms

CONTENT: Operation and maintenance of handguns, rifles, and shotguns

1. Safety precautions
2. Loading and unloading
3. Ballistics
4. Diagnosis of equipment malfunctions
5. Sight adjustment and alignment
6. Firing at targets
7. Cleaning and storage

RESOURCE PERSONNEL:

LOCAL: DWLC staff, police, military personnel

FOREIGN: Not needed

DURATION: 2-4 days

TARGET AUDIENCE:

Compulsory: Game Guard, Range Assistant, Ranger, Office Watcher

Elective: Assistant Director (Technical), Assistant Director (Regional),
Head Office Staff

TOPIC G-4 - FIRST AID

OBJECTIVE: To provide training in immediate treatment of injuries sustained in the field

- CONTENT:**
1. First Aid treatment
 - (a) Cuts, burns, scalds
 - (b) Insect and snake bites
 - (c) Fractures
 - (d) Epileptic fits, heat exhaustion, food, alkali & acid poisoning, electric shock, cardiac arrest
 2. Artificial respiration
 3. Use of bandages, splints, and tourniquet
 4. Medicinal plants and their uses

RESOURCE PERSONNEL:

LOCAL: Red Cross

FOREIGN: Not required

DURATION: 2-3 days

TARGET AUDIENCE:

Compulsory: Permanent Labourer, Bungalow Keeper, Driver, Game Guard, Range Assistant, Ranger, Carpenter, Mason, Office Watcher

Elective: Assistant Director (Technical), Assistant Director (Regional), Head Office Staff

TOPIC G-5 - JUNGLE CRAFT

OBJECTIVE: To provide training in the essential crafts required to survive in the jungle during emergencies and long-term field conditions

- CONTENT:**
1. Avoidance of conditions that result in emergencies
 2. Construction of temporary shelter and furniture
 3. Knowledge of edible plants and animals
 4. Emergency first aid
 5. Camp maintenance
 6. Study of animal signs
 7. Map reading and orienteering
 8. Preventing disease
 9. Recognizing and avoiding poisonous plants and animals
 10. Construction of tools and weapons
 11. Obtaining assistance
 12. Ten day trekking and camping in remote area
 13. Preparation of report on field trip

RESOURCE PERSONNEL:

LOCAL: DWLC Director, Assistant Director, Technical and Regional, Park Wardens, and other government departments

FOREIGN: Not required

DURATION: 3-5 days

TARGET AUDIENCE:

COMPULSORY: All DWLC staff

TOPIC G-6 - TYPING

OBJECTIVE: To provide basic knowledge of typing letters and documents

CONTENT: Elementary keyboard exercise
Letter typing procedures
Manuscript preparation and proof correction
Technical report typing
Voucher/invoices/financial statements typing
Care and maintenance of typewriters

RESOURCE PERSONNEL:

LOCAL: DWLC Staff, Technical Schools

FOREIGN: Not required

DURATION: 10 days

TARGET AUDIENCE:

COMPULSORY: None

ELECTIVE: Ranger, Assistant Director (Technical), Assistant Director (Regional), Office Watcher, Storeman

TOPIC T-1 - BASIC BIOLOGY

- OBJECTIVES:**
1. To provide general training in biology to DWLC personnel who have not had previous exposure to the life sciences in high school
 2. To provide an understanding of a broad range of topics like morphology, anatomy, physiology, genetics, evolution, taxonomy, and ecology of living organisms (microbes, plants, and animals)

- CONTENT:**
1. Levels of biological organization, cells, tissues, organs, organisms, species, communities, and ecosystems
 2. Ultrastructure of cells, cell membranes, nucleus, ER, ribosomes, microsome, mitochondria, and plastids
 3. Plant form and function, morphology and anatomy of roots, stems and leaves. Uptake, transport and loss of water. Mineral nutrition photosynthesis and N₂ metabolism, primary production. Vegetative growth and development, hormones.
 4. Animal form and function
 5. Reproductive biology of plants and animals
 6. Basic genetics and evolution Mendel's laws, chromosomes, DNA, outline of protein synthesis, mutation, variations, natural selection, and evolution

7. **Biological diversity - major group of plants and animals**
8. **Taxonomy - identification, naming and classification of living organisms**
9. **Basic Ecology**

RESOURCE PERSONNEL: Teaching staff of local universities and training schools

DURATION: 4 weeks

TARGET AUDIENCE:

Compulsory: Game Guard, Range Assistant, Ranger

Elective: Permanent Labourer, Bungalow Keeper



TOPIC T-2 - FIELD ECOLOGY

OBJECTIVES:

1. Review and evaluate biotic and abiotic resources found within natural and man-made habitats and ecosystems of Sri Lanka
2. To provide training in collection, analysis, and interpretation of ecological data from selected habitats

CONTENT:

1. General survey of natural resources of Sri Lanka
2. Urban, rural, and commercial needs for natural resources
3. Trends and effects of exploitation of natural resources
4. Basic concepts of evolution, ecology, and environmental conservation
5. Use of scientific field equipment
6. Analysis of biotic resources/factors - soil, water, and climate
7. Phytosociology
 - (a) Habitat stratification, profile diagrams
 - (b) Methods of data collection, analysis, and interpretation of plant communities using quadrat, belt transect, and plotless techniques
 - (c) Aerial photo and LANDSAT imagery interpretation
8. Behavioral ecology
 - (a) Demography - methods and techniques of data collection, age and sexing of animals, population dynamics

- (b) Ecology methods of data collection, analysis, and interpretation of diet, home range use and time, budgets of vertebrate species
 - (c) Behavior - review of social organization, animal communication, and behavioral interactions
9. Scientific report writing and presentation
 10. Ecological research and wildlife management

RESOURCE PERSONNEL:

LOCAL: Universities of Sri Lanka

FOREIGN: Smithsonian Institution, USFWS, U.S. Universities

DURATION: 6 weeks

TARGET AUDIENCE:

COMPULSORY: Game Guard, Range Assistant, Ranger, Assistant Director (Technical), Assistant Director (Regional)

TOPIC T-3 - CONSERVATION BIOLOGY

- OBJECTIVES:**
1. Discuss the uses and value of wildlife resources and the threats to the conservation of biological diversity in Sri Lanka
 2. Provide training in the principles and concepts of conservation biology

- CONTENT:**
1. Uses and value of wildlife resources
 - (a) Economic
 - (b) Ecological
 - (c) Genetic
 - (d) Dietary
 - (e) Cultural
 - (f) Medicinal
 - (g) Ornamental
 2. Endangered species, extinctions
 - (a) Natural and man induced causes
 - (b) Genetic drift
 - (c) Minimum viable populations
 - (d) Populations vulnerability analysis
 - (e) Island biogeography
 - (f) Design of protected areas
 3. Principles of genetic management of small wildlife populations

RESOURCE PERSONNEL:

LOCAL: March for Conservation, Open University,
University of Peradeniya, and other interested universities

FOREIGN: Personnel of the Smithsonian Institution and USFWS

DURATION: 1 week

TARGET AUDIENCE:

Compulsory: Ranger, Assistant Director (Technical)

Elective: Range Assistant, Assistant Director (Regional)

TOPIC T-4 - FAUNAL SURVEY TECHNIQUES

- OBJECTIVES:**
1. To study the distribution of local fauna and provide training in field identification, collection, and preservation of all vertebrate taxa and selected invertebrates of Sri Lanka
 2. To improve the technical capacity of DWLC to conduct different types of faunal surveys

- CONTENT:**
1. Distribution of different types of fauna
 - (a) Indigenous, migrant, endemic, and endangered species
 2. Use of keys for field identification
 3. Collection and preservation of field specimens
 4. Maintaining wildlife records
 - (a) Log book maintenance
 - (b) Use of check sheets
 5. Census techniques, analysis, and interpretation of data
 6. Morphometry

RESOURCE PERSONNEL:

LOCAL: March for Conservation, Department of Zoology, Open University, University of Peradeniya, and other interested local universities

FOREIGN: Personnel of the Smithsonian Institution and USFWS

DURATION: 1 week

TARGET AUDIENCE:

Compulsory: Ranger

Elective: Permanent Labourer, Game Guard, Range Assistant, Assistant Director (Technical), Assistant Director (Regional)

TOPIC T-5 - PLANT SURVEY TECHNIQUES

- OBJECTIVES:**
1. To provide an understanding of the abiotic and bio-climatic zones of Sri Lanka and discuss the distribution of major vegetation types of the island
 2. To provide training in plant taxonomy, use of keys and field identification, enumeration collection and preservation of plants

- CONTENT:**
1. Topography and soil types of Sri Lanka
 2. Climatic and vegetational zones of Sri Lanka
 3. Distribution of major vegetation types and important species
 4. Plant taxonomy and diversity
 5. Use of keys and field identification of plants
 6. Methods of field data collection, analysis and interpretation
 7. Collection and preservation of plant specimens
 8. Inventory of plant taxa of national parks and sanctuaries

RESOURCE PERSONNEL:

LOCAL: Dept. of Botany, University of Peradeniya
and Royal Botanical Gardens, Peradeniya

FOREIGN: Not required

DURATION: 2 weeks

TARGET AUDIENCE:

Compulsory: Ranger

Elective: Permanent Labourer, Game Guard, Range Assistant,
Assistant Director (Technical), Assistant Director (Regional)

TOPIC T-6: RESOURCES INVENTORY

OBJECTIVE:

Provide an understanding of:

- 1. Sampling techniques used for measurement of aquatic and terrestrial habitat variables**
- 2. Sampling techniques used for measurement of terrestrial and aquatic animal and plant populations.**
- 3. Development of a sampling design**
- 4. Application of statistical analytical tools for data reduction and analysis.**

CONTENT:

- 1. Theory and concepts related to resource inventories.**
- 2. Sampling techniques and equipment for measuring terrestrial habitat variables**
- 3. Sampling techniques and equipment for measuring terrestrial animal and plant populations**
- 4. Sampling techniques and equipment for measuring aquatic habitat variables.**
- 5. Sampling techniques and equipment for measuring aquatic animal and plant populations.**
- 6. Review of basic statistical concepts.**
- 7. Data analysis and interpretation**
- 8. Theory and application of parametric statistics.**
- 9. Theory and application of non parametric statistics.**

10. Theory and application of cluster analyses.
11. Use of computers for statistical analysis and data management.

RESOURCE PERSONNEL:

LOCAL: DWLC Staff, University Colombo, University of Peradeniya.

FOREIGN: USFWS, Smithsonian Institution

DURATION: 2-3 weeks (1/2 classroom: 1/2 field)

TARGET AUDIENCE:

Compulsory: Range Assistant, Ranger, Assistant Director (Regional)

Elective: Game Guard, Assistant Director (Technical)

TOPIC T-7: MUSEUM CURATION & TAXIDERMY

OBJECTIVES: To provide training in the collection, preservation, and preparation of plant and animal specimens for the TREE Center Museums of DWLC.

- CONTENT:**
1. Methods and equipment used in museum collection, preservation and preparation of plant specimens.
 - (a) Dry and wet techniques
 2. Methods and equipment used in museum collection of invertebrate and vertebrate specimens
 - (a) Capture techniques
 3. Preparation of animal skins, organs, skeletons, and tracks
 4. Mounting animal specimens for exhibition and scientific study
 - (a) Partial and whole amount
 - (b) Taxidermy

RESOURCE PERSONNEL:

LOCAL: Dept. of Botany, University of Peradeniya, and DWLC
Training staff, Taxidermist of Dept. of Museums

FOREIGN: USFWS, Smithsonian Institute

DURATION: 2 weeks

TARGET AUDIENCE:

Compulsory: Assistant Director (Regional)

Elective: Permanent Labourer, Game Guard, Range Assistant,
Ranger, Assistant Director (Technical)

TOPIC T-8: HABITAT MANAGEMENT

OBJECTIVE: Provide an understanding of :

1. Habitat as a basis for impact assessment
2. Structural and functional components of habitat
3. Measurement and evaluation of habitat variables
4. Development and use of habitat models
5. Development and implementation of habitat management

CONTENTS: 1. Basic concepts and theory of habitat and its use by wildlife

2. Terrestrial habitats
3. Inland wetland habitats
4. Coastal wetland habitats
5. Estuarine wetland habitats
6. Review of habitat suitability models
7. Construction of habitat suitability models
8. Applicability of habitat model for :
 - (a) Baseline inventory and assessment
 - (b) Impact assessment studies
 - (c) Development of management plans
9. Use of computerized habitat stability model
10. Measurement of habitat variable (both terrestrial and aquatic)
11. Components of a sampling design
12. Implementation of field habitat assessments

RESOURCE PERSONNEL:

LOCAL: DWLC Staff, University of Colombo, University of Peradeniya

FOREIGN: USFWS (National Ecology Research Center) Smithsonian Institution

DURATION: 2-3 weeks

TARGET AUDIENCE:

Compulsory: Range Assistant, Ranger, Assistant Director (Technical), Assistant Director (Regional)

Elective: Game Guard

TOPIC T-9: ENDANGERED SPECIES MANAGEMENT

OBJECTIVE: To provide training in the management of endangered species of Sri Lanka.

- CONTENT:**
1. Biology of selected endangered species
 2. In-situ management of endangered species
 - (a) Assessment of population status
 - (b) Identification of human animal conflicts
 - (c) Capture, translocation, and reintroduction
 - (d) Habitat modification and enhancement
 - (e) Island biogeography and the design of protected areas
 - (f) Developing a management plan
 - (g) Law enforcement
 - (h) Public education
 3. Ex-situ management of endangered species
 - (a) Artificial reproduction techniques
 - (b) Genetic aspects and stud book maintenance
 - (c) Developing species survival plans
 4. Review of successful management plans

RESOURCE PERSONNEL:

LOCAL: DWLC staff, endangered species specialists at Universities and other institutions

FOREIGN: Personnel of the Smithsonian Institution, USFWS, and U.S. Universities

DURATION: 2 weeks

TARGET AUDIENCE:

Compulsory: Ranger, Assistant Director (Regional), Assistant Director (Technical)

Elective: Permanent Labourer, Game Guard, Range Assistant

TOPIC T-10: VETERINARY CARE

OBJECTIVE: To provide training in preliminary veterinary care of free living and captive wild animals.

- CONTENT:**
1. Animals as disease vectors
 2. Animal diseases and symptoms
 3. Treatment of diseased and injured animals
 - (a) Precautions in treatment
 - (b) Animal capture, restraints, and administration of drugs and vaccines
 - (c) Use of surgical equipment
 4. Disease control methods and treatment
 5. Postmortem procedures
 6. Collection and preservation of animals, organs, and tissues

RESOURCE PERSONNEL:

LOCAL: Department of Veterinary Science, University of Peradeniya

FOREIGN: University of California, Davis; National Zoological Park
Washington, D.C.; USFWS Patuxent Wildlife Research
Center.

DURATION: 2-3 weeks

TARGET AUDIENCE:

COMPULSORY: Ranger, Assistant Director (Regional)

ELECTIVE: Permanent Labourer, Game Guard, Range Assistant,
Assistant Director (Technical)

TOPIC T-11: PUBLIC EDUCATION AND INTERPRETATION

OBJECTIVE: To bring to public attention the need for wildlife conservation and the DWLC role in meeting that goal.

- CONTENT:**
1. Identify opportunities to communicate with the public.
Improve/expand existing methods and explore new methods.
 2. Identify obstacles/barriers to communication (ie. language, economic status, political affiliation, urban-rural lifestyle, etc.)
 3. How to overcome these obstacles by group discussion/workshop by participants
 4. Public meetings - Informational
Purpose of public meetings, what can be accomplished.
How to announce, organize and conduct. How to present information without controversy. Importance of accurate, and complete information.
 5. Interpretive displays - How to:
Produce high quality, keep in good repair, obtain professional help for design of displays, and keep subject matters simple.
 6. How to develop audio-visual programs
Video productions - less expensive, simple to operate, can be made by department personnel.
Video equipment can be used to record habitat conditions, changes, improvements, etc.

7. Interpretative walks and trails. Self guiding - signs directional and informational
Use of simple maps and leaflets to provide a choice short walks for elderly and disabled and long walks for children and adults
8. Volunteers - How to recruit volunteers, offer incentives, maintain interest in work. Types of work they can perform, importance of recognition for service
9. Environmental Education (E.E.)
 - How to stimulate teacher interest in E.E.
 - How to conduct teacher workshops
 - Methods for designing E.E. programs
 - Importance of practical "hands on" activities
 - Sources of existing materials
 - Home and neighborhood E.E. opportunities
10. Vandalism prevention
 - How this relates to E.E. and adult interpretive programs
 - Importance of immediate repairs or replacement

RESOURCE PERSONNEL:

LOCAL: Experienced volunteer teachers, University Staff, DWLC-AD, Education and Publicity

FOREIGN: USFWS, USNPS, North American Association for Environmental Education, Smithsonian Institution

DURATION: 4 weeks

TARGET AUDIENCE:

Compulsory: Range Assistant, Ranger, Assistant Director (Training), Assistant Director (Regional)

Elective: Permanent Labourer, Game Guard

TOPIC T-12: PARK PLANNING

OBJECTIVE: To provide training in developing a document that will be the basis for protection, restoration, development, and enhancement of natural resources in protected areas.

- CONTENT:**
1. Statement of purpose of park, reserve, sanctuary, consideration of laws, legislative mandates
 2. Inventory of resources, including soils and topography, surface and groundwater, plants, animals and existing structures, roads, etc.
 3. Use of Geographic Information System (G.I.S.) for park planning
 4. Planning considerations - Decisions Zoning for management
Resource Prevention - Methods Provision for public and economic use
Development of facilities for management, limitations of development and use, personnel for management, building road structures for management
 5. Public participation in planning. Need for agreement and public support. Involvement of consideration of economic/political realities
 6. Plan preparation. Maps, illustrations, location, and design of roads, structures, water control facilities, power lines etc., Engineering requirements
Environmental assessment cost estimates for: construction of

facilities; purchase of equipment; personnel salaries; routine operations; maintenance of improvements and equipment; replacement of equipment.

Schedule for plan completion

Review and approval requirements

RESOURCE PERSONNEL:

LOCAL: A.D. Park Planning

FOREIGN: USFWS, USNPS

DURATION: 2 weeks

TARGET AUDIENCE:

Compulsory: Ranger, Assistant Director (Regional)

Elective: Range Assistant, Assistant Director (Technical)

TOPIC T-13: SCIENTIFIC PROPOSAL WRITING

- OBJECTIVES:** Develop the skills required for the preparation of
- (a) Scientific reports and publications
 - (b) Popular articles for newspaper, radio, and television.
 - (c) Project proposals
- CONTENT:**
- 1. Review of basic programs
 - 2. Review of elements of composition
 - 3. Review of elements of style
 - 4. Format and guidelines for scientific reports and publications
 - 5. Use of reference materials
 - 6. Computerized library searches
 - 7. Preparation of articles for publication in scientific journals.
 - 8. Preparation of articles for newspapers, radio and television
 - 9. Preparation of proposals for funding
 - 10. Identification of potential funding sources

PERSONNEL RESOURCES:

LOCAL: DWLC, Staff, University of Colombo, University of Peradeniya, private consultants

FOREIGN: USFWS, Smithsonian Institution, USNPS

DURATION: 3-5 days

TARGET AUDIENCE:

Compulsory: Assistant Director (Technical), Assistant Director (Regional)

Elective: Game Guard, Range Assistant, Ranger

TOPIC T-14: WILDLIFE CERTIFICATE *

OBJECTIVE: Upgrade knowledge and awareness of wildlife conservation and management

- CONTENT:**
1. Basic biology and wildlife of Sri Lanka
 - (a) Structure and function of the living organism
 - (b) Wildlife in Sri Lanka
 - (c) Laboratory practical
 2. Basic ecology, populations, and communities
 - (a) Basic ecology
 - (b) Populations
 - (c) Communities
 - (d) Laboratory/field practical
 3. Conservation and Management
 - (a) Conservation
 - (b) Management
 - (c) Laboratory/field practical

RESOURCE PERSONNEL:

LOCAL: Open University of Sri Lanka

FOREIGN: Not required

COURSE DURATION: 5 weeks - probably over a 1-year period

TARGET AUDIENCE:

Compulsory: None

Elective: Permanent Labourer, Bungalow Keeper, Driver, Game
Guard, Range Assistant, Ranger

- * This topic has been established as a course at the Open University which could supply more information on objectives and content.

TOPIC T-15: DIPLOMA

OBJECTIVE: To obtain a diploma in a wildlife related subject (Wildlife Management, Natural Resources, Zoology, Biology, Fisheries, Wetlands, Soil Science, Park Planning, Forestry or Botany).

CONTENT: Accredited Diploma Program within or outside of Sri Lanka

RESOURCE PERSONNEL:

LOCAL: Universities or technical schools within Sri Lanka

FOREIGN: Universities or technical schools outside of Sri Lanka

DURATION: Approximately 2 years

TARGET AUDIENCE:

Compulsory: None

Elective: Permanent Labourer, Bungalow Keeper, Driver, Game Guard, Range Assistant, Ranger, Assistant Director (Regional), Storeman

TOPIC T-16: GRADUATE DEGREE

OBJECTIVE: To obtain a graduate degree in a wildlife related subject (Wildlife Management, Natural Resources, Zoology, Biology, Fisheries, Wetlands, Soil Science, Park Planning, Parks and Recreation, Forestry or Botany).

CONTENT: Accredited university program either within or outside of Sri Lanka.

RESOURCE PERSONNEL:

LOCAL: Universities within Sri Lanka

FOREIGN: Universities outside of Sri Lanka

DURATION: 2-5 years

TARGET AUDIENCE:

Compulsory: None

Elective: Permanent Labourer, Bungalow Keeper, Driver, Game Guard, Range Assistant, Ranger, Assistant Director
(Regional)

TOPIC T-17: POST GRADUATE DEGREE

OBJECTIVE: To obtain a post graduate degree (Masters or Ph.D.) in a wildlife related subject (Wildlife Management, Natural Resources, Zoology, Biology, Fisheries, Wetlands, Soil Science, Park Planning, Parks and Recreation, Forestry or Botany).

CONTENT: Accredited university programme either within or outside of Sri Lanka.

RESOURCE PERSONNEL:

LOCAL: Universities within Sri Lanka that offer a post graduate degree

FOREIGN: Universities outside of Sri Lanka that offer a post graduate degree

DURATION: 2-5 years

TARGET AUDIENCE:

Compulsory: Assistant Director (Technical)

Elective: Range Assistant, Ranger, Assistant Director (Regional)

TOPIC S-1: ADMINISTRATION AND ACCOUNTING

- OBJECTIVES:**
1. Gain an understanding in theory and practice of administration and accounting.
 2. Gain experience in the development and use of financial planning and cost accounting models.

- CONTENT:**
1. Basic concepts of management
 2. Principles of cost accounting
 3. Review of government cost accounting guidelines and regulations.
 4. Development and use of financial planning and forecasting models.
 5. Use of computers in financial management

RESOURCE PERSONNEL:

LOCAL: DWLC staff, Ministry staff, University of Colombo,
University of Peradeniya

FOREIGN: Not required

DURATION: 2 WEEKS

TARGET AUDIENCE:

Compulsory Range Assistant, Ranger, Assistant Director (Regional),
Assistant Director (Technical)

Elective Storeman, Head Office Staff

TOPIC S-2: STORES MANAGEMENT AND INVENTORY CONTROL SYSTEM

OBJECTIVE: To provide the better understanding of inventory control system, and store management procedures for the Park/Range store in charge officers of DWLC.

CONTENTS:

1. Needs of store management.
2. Methods of stores management.
3. Care and maintenance of stores.
4. Inventory procedures and updating store inventory.

RESOURCE PERSONNEL:

LOCAL: DWLC staff, local store owners, technical schools.

FOREIGN: Not necessary

DURATION: 2-3 days

TARGET AUDIENCE:

Compulsory: Carpenter

Elective: Head Office Staff

TOPIC S-3: FIRE FIGHTING II

OBJECTIVE: To provide an understanding of the essential concepts for fighting wildfires.

- CONTENT:**
1. Fire fighting basics, behavior of wildfire and influence of weather
 2. Safety
 3. Prevention of wildfires
 4. Use and maintenance of hand equipment
 5. Use and maintenance of motorized equipment
 6. Construction and use of fire breaks
 7. Team coordination during fire fighting

RESOURCE PERSONNEL:

LOCAL: Park Warden, Assistant Park Warden,
Ranger I, Fire Department, Forest Department

FOREIGN: Not Required

DURATION: 1-2 days

TARGET AUDIENCE:

Compulsory: Permanent Labourer, Director, Game Guard, Range
Assistant, Ranger

Elective: Driver

TOPICS S-4: FIRE FIGHTING II

OBJECTIVE: To provide an understanding of the essential concepts of controlling structural and equipment fires.

CONTENT:

1. Fire fighting basics
2. Safety
3. Prevention of fires
4. Use and maintenance of hand equipment
5. Use and maintenance of motorized equipment

RESOURCE PERSONNEL:

LOCAL: Fire Department

FOREIGN: Not required

DURATION: 1 day

TARGET AUDIENCE:

Compulsory: Game Guard, Range Assistant, Ranger, Office Watcher

Elective: Assistant Director (Technical), Assistant Director (Regional),
Head Office Staff

TOPIC S-5: VEHICLE OPERATION AND MAINTENANCE

OBJECTIVE: To provide information and guidance to drivers and operators of motorized vehicles to obtain maximum efficiency, economy, and longevity of DWLC motor equipment.

- CONTENT:**
1. Review operating manuals for each piece of equipment that drivers are expected to operate.
 2. Record keeping - Accurate recording of use of fuel, lubricants, filters, tyres, repairs, etc.
 3. Fuel economy - Driving methods, engine condition, and tuning.
 4. Breakdowns - Causes, prevention, cost of repair and source of vehicle parts, mechanical and electrical repairs.
 5. Demonstrations - Service methods, cautions to observe, tyre wear and correction, improving engine performance.
 6. Driving safety - Collision avoidance, accident reporting

RESOURCE PERSONNEL:

LOCAL: Service and mechanical experts from vehicle manufactures,
other local experts, and RMV

FOREIGN: Not required

DURATION: 3 to 4 days

TARGET AUDIENCE:

Compulsory: Driver

Elective: Range Assistant, Ranger

TOPIC S-6: EQUIPMENT USE AND MAINTENANCE

OBJECTIVE: To provide training in the use and maintenance of equipment, used in office, field work, and public education.

CONTENT: Use and maintenance of:

a) Office equipment

Photocopy machine, FAX, typewriter, computer, printer

b) Field equipment

Binoculars, compass, range finder, animal traps, mist nets, animal capture gun, animal tagging and ringing equipment, radio telemetry equipment, telescope, night observation device, and weather recording equipment.

c) Audio Visual Equipment

Movie projector, slide projector, VCR loudspeaker, microphone, amplifier, sound recording equipment, and photographic equipment

d) Specialized equipment

Outboard motors, diving equipment, Electrical welding, carpentry, and masonry equipment

RESOURCE PERSONNEL:

LOCAL: DWLC staff, Rupavahini staff, Professional photographers,
and agents of specialized equipment

FOREIGN: USFWS, Smithsonian Institution

DURATION: 1 week

TARGET AUDIENCE:

Compulsory: Storeman

Elective: Permanent Labourer, Game Guard, Range Assistant,
Ranger, Assistant Director (Technical), Assistant Director
(Regional)

TOPIC S-7: INFRASTRUCTURE MAINTENANCE

OBJECTIVE: Training to ensure the maintenance and upkeep of DWLC's buildings and bungalows.

- CONTENT:**
1. Repair and maintenance of household appliances
 - a) Refrigerator, generator, water pump, cookers, lamp, washing machine
 2. Carpentry
 - a) Repair and maintenance of household furniture, roofs, doors, and windows
 3. Masonry
 - a) Repair and maintenance of floors and walls
 - b) House painting
 4. Plumbing
 - a) Repair and maintenance of taps, cisterns, and pipe fittings
 5. Sheet and corrugated metal work
 - a) Roof repairs
 - b) Repair and maintenance of down pipes and gutters
 6. Cane weaving
 7. Household electrical repairs

RESOURCE PERSONNEL:

LOCAL: DWLC experienced personnel, trade men and repair specialists

FOREIGN: Not required

DURATION: 1 week

TARGET AUDIENCE:

Compulsory: Bungalow Keeper

Elective: Permanent Labourer

TOPIC S-8: HOUSE KEEPING

OBJECTIVE: To provide guidelines and standards for the safe and economic operation and upkeep of DWLC bungalows, kitchens, and guest facilities.

- CONTENT:**
1. Agreement on minimum standards
for: Bungalow operation, food preparation, sanitation, building upkeep and repairs
 2. Cleaning buildings - Frequency, use of proper supplies, methods, ordering and obtaining adequate materials and supplies, inspections
 3. Food and room preparation - Sanitation and food storage, prevention of spoilage and waste, ordering staples and supplies, recipes, menus - variety and standards, table and linen service, dish and utensil cleaning
 4. Maintenance of buildings, furniture, and appliances -
Responsibilities assigned to bungalow keepers - Provide manuals, instructions, tools
Provide method of obtaining parts and supplies for repairs
Perform repair demonstrations
 5. Safety of occupants
How to identify hazards and protection of visitors

RESOURCE PERSONNEL:

LOCAL: DWLC Staff

FOREIGN: Not required

DURATION: 2 weeks

TARGET AUDIENCE:

Compulsory: Bungalow Keeper

Elective: Permanent Labourer, Range Assistant, Ranger, Carpenter,
Mason, Head Office Staff

TOPIC S-9: MAHOUT TRAINING

OBJECTIVE: To provide skills necessary for the domestication, training, and maintenance of elephants.

CONTENT:

1. Review of traditional methods of elephant domestication, training and maintenance.
2. Use of verbal and tactile commands
3. Use of ankus and other elephant control equipment
4. Elephants behavior
5. Diet and digestive physiology of elephants
6. Reproductive physiology of elephants
7. Health and hygiene of elephants in captivity
8. Treatment of minor ailments and musth
9. Care of young

RESOURCE PERSONNEL:

LOCAL: Elephant Keepers at the Dehiwela Zoo and Pinnawela Elephant Orphanage, Veterinary Science Faculty, University of Peradeniya, and elephant owners

FOREIGN: Not required

DURATION: 3 months

TARGET AUDIENCE:

Compulsory: None

Elective: Permanent Labourer, Game Guard, Range Assistant, Ranger

TOPIC S-10: SURVEYING AND ENGINEERING

- OBJECTIVES:**
1. Provide an understanding of the use, care, and maintenance of survey equipment.
 2. Develop expertise to use survey and engineering equipment to design and modify maps and implement engineering plans in the field.

- CONTENT:**
1. Introduction to survey techniques
 2. Use and care of survey equipment
 3. Review of mathematics requirement of surveys
 4. Reading and interpretation of blue prints, maps, and engineering plans
 5. Design and use of survey maps

RESOURCE PERSONNEL:

LOCAL: DWLC staff, Public Works Development Staff, Technical schools, Govt. and private engineering staff

FOREIGN: Not required

DURATION: 1 week

TARGET AUDIENCE

Compulsory: None

Elective: Ranger Assistant and Ranger

APPENDIX F

List of potential local resource personnel identified for DWLC staff development and training

University of Peradeniya

Dr. Vijitha Kuruwita, Faculty of Vet. Science		(T9-T10)
Dr. Niranjala de Silva	-do-	(T10)
Dr. I. Silva	-do-	(T10)
Dr. Neville de Silva	-do-	(T9-T10)
Dr. Asoka Dangolla	-do-	(T10)
Dr. Neil Horadagoda	-do-	(T10)
Dr. H. Abeygunawardana	-do-	(T9-T10)
Dr. N. Obeysekera	-do-	(T10)
Prof. S. Balasubramaniam, Dept. of Botany		(T1, T2, T3, T5, T7, T8)
Prof. N. Gunatilaka	-do-	(T1, T2, T3, T5, T7, T8)
MR. Amara Weerasooriya	-do-	(T5)
Mr. Daya Bandula	-do-	(T5)
Mr. H.D. Ratnayaka	-do-	(T5)
Prof. R. Breckenridge, Dept. of Zoology		(T1, T2)
Dr. Padma de Silva	-do-	(T1, T2, T3, T4)
Mr. S.P. Ekanayaka	-do-	(T4)
Dr. Nimal Perera, Post Graduate Institute of Agriculture		(T2, T9, T10, T16, T17)

Dr. Kalyani Perera	-do-	(T2, T9, T10, T16, T17)
Prof. S.B. Rajaruru	-do-	(T8)
Prof. .P.M. Gunasena	-do-	(T13)
Dr. M.W.A.P. Jayatilleka	-do-	(T9)
Dr. R.O. Tatill	-do-	(G7, G8)

Open University of Srilanka

Dr. Thusitha Peries, Dept. of Zoology		(T1, T2, T3, T4, T8, T9, T14, T15)
Dr. Ryhana Raheem, Dept. of English		(G9)

University of Colombo

Dr. W.D. Ratnasooriya, Dept. of Zoology		(T9)
Dr. Nirmali Pallewatta, Dept. of Zoology		(T1, T2, T3)

Government Departments

Mr. A. Meddegoda, Attorney Generals Dept		(G2)
Mr. A.M. Dayananda	DWLC	(G7)
Mr. C. Jayawardana	DWLC	(T2, T8, G2)
Mr. A.H. Sumanasena	DWLC	(T4, T5, T9, G3)
Mr. M.R. Mohamad	DWLC	(T11)
Mr. K.A. Amaratunga	DWLC	(T11, G2)
Mr. E. Wilson	DWLC	(G3, T6, T7, T11)
Mr. B.J. Wickramanayaka	DWLC	(S7)
Mr. H.A. Karunapala Perera	DWLC	(S7)
Mr. P.D. Dayarathna	DWLC	(S7)
Mr. Muthubanda	DWLC	(T7, T8)

Mr. S.D.D. Laxman	DWLC	(T2, T3, T4, T5, T7, T8, T9, T11)
Dr. T. Gunawardane	Dept of Museums	(T11)
Mr. B. Fernando, Dept. of Zoological Gardens		(T9, T10)
Mr. S. Wijesundara, Royal Botanical Gardens, Peradeniya		(T5, T7)

Non-Governmental Organizations & Private

Mr. A.B. Fernando	AD DWLC (Retired)	(G2, T9)
Mr. Childers Jayawardana	AD DWLC (Retired)	(G2, T8, T9, T4)
Mr. Shirley Perera	AD DWLC (Retired)	(G5, T8, T9, T4)
Mr. P.B. Karunaratna	March For Conservation	(G5, T4, T5, T7, T9)
Ms. Neela de Zoysa	-do-	(T1, T2, T3, T4, T5, T11)
Ms. Upeksha Hettige	-do-	(T1, T2, T5)
Ms. Kumudu Rajapaksa	-do-	(T1, T2, T4)
Ms. Indrakanthi Perera	-do-	(T1, T2, T4, T5)
Mr. Dharmin Samarajeewa	-do-	(S6)
Mr. Nihal Fernando	Private	(S6)
Dr. T.S.U. De Silva	-do-	(S6)
Mr. Cedric Martenstyn	-do-	(S6)
Mr. Rex de Silva	-do-	(S6)