Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024



SD Guthrie Berhad

Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

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Document History

Subsequent to version 1, all issues must record changes within the table below:

Version	<u>Date</u>	<u>Author</u>	Notes on Revisions
1	23/07/2020	Nur Aida Ab Ghani	N/A
2	27/02/2024	Nur Aida Ab Ghani Siti Norralakmam Yahya	 New SOP Formats and Orders – The previous Table of Contents consisted of 12 items, while the revised version 2 consists of 7 items. New additions include the following items: 3.2.1.3 – Land Use Control (New Planting)
			 3.2.2.4 - Land Use Control (Replanting) 3.4.1.4 and 3.4.1.5 - Crop Guarding/Patrolling



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

3. Changes to Conservation & Biodiversity email
in item 3.5.1.3
4. Deletion of the references:
• ESH Management System Manual,
Incidents, Accidents & Non-conformance
management by Sime Darby Plantation
(M) Sdn. Bhd. Doc ID: SD/SDP/SQM
(ESH)/001-2-9; February 2015
5. New addition of the references:
a. Wildlife Conservation (Amendment) Act
2022 (Act A1646)
b. Bornean Elephant Action Plan for Sabah
(2020-2029) by Sabah Wildlife
Department, Ministry of Tourism, Culture
and Environment
c. National Elephant Conservation Action
Plan (2023-2030), NECAP 2.0 by
Department of Wildlife and Nature Park
(DWNP)
, ,
6. New item for Process Owner
1

Table of Contents

1.	GLOSSARY	4
2.	SCOPE AND PURPOSE	8
3.	ROLES & RESPONSIBILITIES	9
4.	GUIDELINES ON OPERATIONAL PROCEDURE IMPLEMENTATION	12
5.	REFERENCES TO PARENT/RELEVANT POLICY	28
6.	PROCESS OWNER	29
7.	APPENDICES	30



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

GLOSSARY

The definitions of the key terms and technical words used in this Procedure are as follows:

TERMS	DESCRIPTIONS
RTE	Rare, Threatened and Endangered (RTE) species as defined by the IUCN Species Conservation Status
Wildlife incidents	The incidents that occur involving animal and human interaction as listed in the Table below.
Agriculture pest	Protected wildlife is sometimes considered 'pests' due to their behaviour of damaging agricultural crops.
	However, if concerned wildlife is listed in the national act, mitigation measures must be taken to comply with the regulations. For example, animals like dogs and cattle that are not considered wildlife.
Conflict	Human-wildlife conflict occurs when the needs and behaviour of wild animals' impact negatively on the goals of humans or when the goals of humans negatively impact the needs of wildlife. ¹
	Wildlife-related effects and impacts. ² Effects: Positive and negative outcomes of interactions among wildlife, people, and wildlife habitat.
	Impacts: A subset of wildlife-related effects that a stakeholder/people recognise and regards as important.

Types of wildlife-related effects and impacts - there are eight (8) kinds of major human-wildlife conflicts. They are as follows:

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¹ Preventing and mitigating human-wildlife conflicts: World Parks Congress Recommendation, Journal of Human Dimensions of Wildlife, Vol 9, 259-260, 2004.

² A practitioner's Guide: Human-Wildlife Conflict Management, Northeast Wildlife Damage Management Research and Outreach Cooperative, 2002



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

EFFECTS AND IMPACTS	DESCRIPTIONS	
Fatal	Involves loss of human life.Involves loss of animal life.	
Injury/ sickness/ lost/ trapped	 Involves physical injury to human due to being chased, pushed, beaten, or trampled, and emerging zoonotic disease. Involves physical injury or sickness to the animals and/or disruption to their social structure or behaviour. 	
Property damage	Involves destruction of properties such as building structures, equipment, appliances, and vehicles	
Crop damage	Involves destruction and depredation of agricultural crops or natural vegetation, and lost opportunity cost	
Instil fear	Causes fear among workers/employees of being attacked/ charged when they are outside their houses or when working on site/within a plantation.	
Roaming / foraging	Involve sightings of species that roam but do not cause any harms or fears.	
Mental disturbance	Involves emotional distress and psychological stress and the need to get peace and tranquillity	
Others	Other than as stated above (e.g., loss of habitat)	

The list of identified species commonly involved in conflicts includes:

No	Species in conflict	Remarks
1	Asian Elephant	Listed as Endangered Species on IUCN.
		Listed as Vulnerable Species on Red List of Mammals for West Malaysia, V2.0.
		Listed as Totally Protected Species in Malaysia.



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

No	Species in conflict	Remarks	
		 The conflict generally occurs when land clearing for oil palm/replanting programmes commence at estate/ plantation bordering a reserve. The conflict involves loss of crops, property and causes 	
		fear among workers.	
2	Wild boar	List of protection subjects to species (i.e Sus barbatus listed as Vulnerable on IUCN and endemic to Borneo).	
		• Listed as Totally Protected Species (<i>Sus barbatus</i>) in West Malaysia, others are protected (<i>Sus scrofa</i>) with license/permit to kill/hunt.	
		The conflict generally occurs at reserve borders, replanting areas and mature oil palm areas.	
		The conflict involves damage of crops and causes fear (being chased) among workers.	
3	Long-tailed macaque	 Previously listed as Least Concern Species, elevated as Vulnerable species on IUCN in 2020, protected with licence/permit to kill/hunt by Malaysia Acts. 	
		Also known as the crab-eating macaque.	
		The most common conflict in public areas. The conflict usually starts when to human starts to feed them or/and poor management of waste bins.	
4	Pig-tailed macaque	Previously listed as Vulnerable Species, elevated as Endangered Species on IUCN in 2020.	
		Listed as Least Concern Species on Red List of Mammals for West Malaysia, V2.0.	
		 Aggressive compared to long-tailed. The conflict usually involves charging and chasing of workers by the alpha male. 	



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

No	Species in conflict	Remarks
5	Snake	Depending on the species, conflict mostly involved King cobra (<i>Ophiophagus hannah</i>), Indian cobra (<i>Naja naja</i>) and Monocled cobra (<i>Naja kaouthia</i>).
		Generally, the rescue is carried out by the local Jabatan Pertahanan Awam.
6	Crocodile	Estuarine Crocodile listed as Least Concern Species, but False Gharial listed as Vulnerable on IUCN.
		Sarawak has announced through media, commercial culling to reduce crocodile-human conflict.
		The conflict generally occurs at riverbanks either sighting the animals sun-bathing, predating, or nesting, mainly reported during fishing/river activities.
7	Bat	Depending on the species, conflict mostly occurred at workers' housing complex that has fruit orchards/trees.
		The conflict involves bats that reside in the roofs and instil fear of zoonotic infections in humans.
8	Others	Other conflicts with wildlife such as tapir, pangolin, porcupine, civet, and deer are described as not a significant conflict. The conflict is not harmful to humans but impacts on wildlife, especially conservation issues such as wildlife hunting, illegal trading and consumption.



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

1. SCOPE AND PURPOSE

- 1.1 This SOP covers all operational activities in the estate and mill management in Malaysia.
- 1.2 The wildlife involved in this particular SOP are elephants and other but also all protected wildlife identified and listed under the Wildlife Conservation Act of West Malaysia (WCA 2010), Wildlife Conservation Enactment of Sabah (WCE 1997) and Wildlife Protection Ordinance of Sarawak (WLPO 1998).
- 1.3 The overall purpose of human-wildlife conflict management in SD Guthrie are as follows:
 - a) To increase the awareness of wildlife conservation among our employees, societies, and respective operational stakeholders.
 - b) To set the standard for human-wildlife conflict management best practices and move towards achieving human-wildlife coexistence within our operations.
- 1.4 The objectives of this SOP are:
 - a) To provide guidance in managing human-wildlife conflicts in oil palm plantation in SD Guthrie and adjacent plantations.
 - b) To support the Responsible Agriculture Charter (RAC) and complement the related best practices in wildlife management in oil palm plantation.
 - c) To support the national wildlife conservation initiative for local and international sustainable certifications requirement
- 1.5 The SOP aims to explore opportunities for using evidence-based and adaptive management approaches in decision-making to mitigate human-wildlife conflicts. This, in turn, helps reduce unnecessary actions, improve operational efficiency, minimise operational costs, and promote conservation best practices within the plantation.



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

2. ROLES & RESPONSIBILITIES

The table below summarizes the roles and responsibilities of key stakeholders in managing wildlife presence in plantations.

Roles	Scope of responsibilities
All respective	Managing wildlife in plantation
estates and mills' management team	 Estate Managers need to be aware of the internal capacity to manage wildlife in a plantation which includes the costs, complexity of monitoring, and also be able to determine the extent of external assistance that may be required for the respective teams. Request and coordinate CBU/internal or external trainer to conduct training or enhance internal capacity building. Develop plans and programs to manage wildlife in plantations particularly in areas where the likelihood of finding Rare, Threatened, Endangered (RTE)/protected wildlife is high. Periodic management review, at least once a year, to assess the progress in meeting management's objectives. In case of a wildlife emergency, Estate Managers must authorise personnel to communicate with the relevant authority, with assistance from GS-CBU and the regional support team.
	Data collection
	 Estates facing human-wildlife conflict are required to continually collect all relevant data on human-wildlife conflict within the estate's boundary. The record on human wildlife conflict including death of wildlife, wildlife attacks, illegal activities related to wildlife poaching and other types of conflict as defined in Glossary



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

Roles	Scope of responsibilities
	section, should be easily retrievable at all times at the respective estates.
Group Sustainability – Conservation & Biodiversity Unit (GS-CBU)	 Analysis of data and HWC pattern GS-CBU will request estates that have reported HWC previously to submit the relevant data on quarterly basis via email. GS-CBU will analyse this data, and the findings will be used to determine the mitigation plan to address the conflict at the respective estates, as information for sustainability certifications and others when deemed necessary.
	 GS-CBU will be the focal point of contact and engagement on matters related to human-wildlife conflict in plantation. This would include communication and collaboration with external parties in relation to human-wildlife conflict management and wildlife conservation in estates. Any information related to human-wildlife conflict in the plantation intended to be communicated formally to internal and external parties MUST be verified by GS-CBU. Similarly, any evidence related to wildlife incidents provided by the witnesses should not be shared or communicated externally including via social media without authorisation from the management. Those found committing these offences are considered breaching the company's Code of Business Conduct (COBC) - 10.8. Training Wildlife awareness training will be carried out internally by GS-CBU upon request. All personnel assigned for wildlife monitoring such as elephant patrolling shall attend wildlife awareness



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

Roles	Scope of responsibilities
	training conducted either internally by GS-CBU and/or by external parties on an annual basis. • Estates are encouraged to seek technical training for capacity building relevant to the type of wildlife identified in their respective plantation.
Regional safety team and	Personal Protective Equipment (PPE) application and safety aspect
appointed safety personnel	 Where applicable, personnel patrolling elephants using any equipment with chemicals must exercise caution in handling materials and wear suitable PPE as recommended by the regional SQM - HSE team. Where applicable, personnel patrolling elephants using deterrents such as loud noises must exercise caution and wear suitable PPE as recommended by the regional SQM - HSE team. PPE shall be managed in accordance with the internal Personal Protective Equipment procedures.



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

3. GUIDELINES ON OPERATIONAL PROCEDURE IMPLEMENTATION

3.1 Administrative

3.1.1 Establishment of manpower/budget for patrolling

	Actions	Pe	ersonnel in charge
3.1.1.1	Any employee of the respective estates with skills in identifying species, experience, and passion in wildlife should be considered to be part of the patrolling team.	•	Respective estate management team
3.1.1.2	The involvement of Auxiliary Police (AP) is highly recommended for the patrolling activity.	•	Respective estate management team
3.1.1.3	Disciplinary actions should be taken against the patrolling team if they are found consuming / under the influence of alcohol/drug during the patrol duty.	•	Respective estate management team
3.1.1.4	The cost incurred in mitigating human-wildlife conflict should be indicated in the monthly financial/account reporting (e.g., dedicated items, existing admin items).	•	Respective estate management team



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

3.2 Land-use control

3.2.1 New planting

	Actions	Personnel in charge
3.2.1.1	New planting SOP and documentation should complement other documentation required by internal and external parties.	·
3.2.1.2	Avoid acquiring or investing in a new area that is known to be a wildlife corridor or seasonal movement or wildlife refuge area.	 Upstream Malaysia Other parties involved in the acquisition process
3.2.1.3 3.2.2 Re	If there is an agricultural area that identifies/ serves as a corridor for the movement of wildlife, it is encouraged for enrichment programs for the area (such as planting suitable vegetation) and allowing wildlife to use the area as long as it does not pose a danger to workers' safety.	MalaysiaOther parties involved in the
	Actions	Personnel in charge
3.2.2.1	Replanting programme SOP and documentation should complement other documentation required by internal and external parties.	 Upstream Malaysia Respective estate management team
3.2.2.2	Estate management should notify the GS-CBU should there be any areas pending replanting	 Respective estate



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

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	Actions	Personnel in charge
	that is experiencing wildlife conflict. A localised HWC management plan should be developed.	management team • GS-CBU
3.2.2.3	Each estate with HWC should first carry out its mitigation plan before conducting a replanting programme.	 Respective estate management team GS-CBU
3.2.2.4	During the felling of old oil palm trees, elephants often come out to feed on the palm shoots. Ensure the safety of the general public passing by to observe the incoming elephants, especially if the replanting area is near a road. If necessary, implement controls using temporary signs or drones and other tools with loudspeakers to advise the public to keep a safe distance from the elephants. Only trained staff are allowed to approach the elephants up to 50 meters (20 meters if in a 4WD vehicle). However, the safe distance for the general public is 150 meters, especially for those with children.	Respective estate management team



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

3.3 Use of physical barriers to protect people and crops

3.3.1 Electric fencing

	Actions	Personnel in charge
3.3.1.1	Before construction	
(a) (b)	Assessment and evaluation of the suitability of the construction sites/location. The fence should be constructed in areas that are	Respective estate management
	visible from both sides and will also make maintenance work easy to access.	• Regional
(c)	The type of power supply to be used (e.g., solar panels) should be identified and installed at	support teamGS-CBU
	suitable areas to receive optimum power source. Optimum areas here include, but not limited to, areas that are located on higher ground to avoid flood and abundant source of sunlight, avoid tampering by human and/or animals, and/or potential accidental electrocution (lightning) etc.	 Another relevant department (e.g., Engineering Department)
(d)	The design of the fence should be discussed and communicated internally to the Engineering Department, GS-CBU, and externally with the Wildlife Department, Energy Commission, and other relevant parties before the tendering process.	
(e)	For a new establishment, the distance from one supporting post with another should be 10 meters and 100 meters from one main post to another.	-
(f)	A floodgate controller should be installed at low- lying areas and identified flood-prone areas.	
	Cross-references: SPEG Manual by PERHILITAN-MPOC-FELDA	-



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

	Actions	Personnel in charge
(g)	The material used for power supply has to be certified and in compliance with the Energy Commission (EC) regulations.	Respective estate management team
	Cross-references: Electric Fence Installation Guideline by Energy Commission	
3.3.1.2	During construction	
(a)	Land clearing works for this purpose have to be conducted in accordance with the company policy e.g., no open burning shall be conducted at any point of the fence installation.	 Respective estate management team
(b)	The felled and debris should not be transported out and disposed of internally.	Regional support teamAppointed contractors
3.3.1.3	Post construction and maintenance	
(a)	Every main and support posts need to be numbered and mapped.	Respective estate
(b)	Replacement of materials such as posts and wires destroyed by wildlife need to be recorded.	management team
(c)	Engineered-material/tools (canvas), and/or grass cutting to be carried out regularly to ensure no vegetation grows close to the wirefence.	



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

3.3.2 Trenches

	Actions	F	Personnel in charge
3.3.2.1	Trenches constructed for security purposes are	•	Respective estate
	excluded from this action to be taken.		management
3.3.2.2	Combination of trenches and electric fences, is	•	team
	recommended with caution and to be	•	Regional support
	maintained during and after construction.		team
3.3.2.3	Should management decide to use trenches,	•	
	maintenance must be carried out regularly and		
	the frequency is determined by the type of		
	soil, terrain, and rainfall.		

3.3.3 Others

	Actions	Personnel in charge
3.3.3.1	GS-CBU has to be informed from the	Respective estate
	commencement of the HWC mitigation effort	management
	that operations plan to undertake which	team
	include but not limited to biological control,	• GS-CBU
	usage of synthetic chemical or any technology.	
3.3.3.2	The effort in addressing human-wildlife conflict	Respective estate
	in SD Guthrie estates should be measurable	management
	and the effectiveness monitored accordingly.	team
		• GS-CBU



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

3.4 Crop guarding / patrolling

3.4.1 Routine monitoring of HCV areas and wildlife sighting

	Actions	Personnel in charge
3.4.1.1	Routine monitoring at identified HCV areas is to be conducted by the appointed / trained person.	Respective estate
3.4.1.2	The HCV monitoring form must be filled up when observing wildlife and evidence (photo) has to be attached/ provided to the management office.	management team
3.4.1.3	Sighting of RTE species / unusual species should be identified and recorded.	
3.4.1.4	Patrol members are advisable to collaborate with other neighbouring plantations and local communities. All patrol members should receive appropriate training, especially regarding emergencies and safety measures when encountering elephants or wild animals.	
3.4.1.5	When observing or monitoring wildlife, patrol members need to identify suitable observation points to ensure safety. For example, elevated areas with obstacles provide a safe vantage point for observers, and a safe distance should be maintained. The use of drones is advisable for on-site observation.	

3.4.2 Chasing / driving elephant away during patrolling

	Actions	Pe	ersonnel in charge
3.4.2.1	A good road system along the perimeter of the forest/river should be maintained for wildlife monitoring and boundary patrolling.	•	Respective estate management
3.4.2.2	The use of machines/vehicles to deter elephants from encroaching (e.g., spotlight and engine	-	team



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

	Actions	Personnel in charge
	noise) must only be done by a trained personnel/team.	
3.4.2.3	The use of technical equipment and technology such as radio communication and drones are recommended during patrol duty.	
3.4.2.4	The mobile patrol team should approach the sighted elephant with caution. Check carefully for sounds or signs to see if there are other elephants in the area. Stay at the periphery and avoid moving in between elephants as it may stress them and could result in a dangerous response.	_
3.4.2.5	Escape routes, terrain and animal behaviour should be assessed before chasing/driving the elephants out of the areas planted with young palms (below 5 years old).	_
3.4.2.6	Maintain a safe distance (minimum 50 metres) should there be young elephants in a group.	
3.4.2.7	Shooting or throwing objects at elephants is strongly discouraged/prohibited.	-
3.4.2.8	A buddy/pair system should be practised when patrolling and entering any areas with known elephant presences. If one person is focused on a task, the buddy needs to stay alert and keep a look out at the surroundings for any signs of threat or danger.	_
3.4.2.9	Only trained and authorised personnel can use fire and firearm to scare elephants.	-
3.4.2.10	Real-time communication with neighbouring landowners should be initiated to alert them especially when chased-out elephants had	



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

Actions	Personnel in charge
escaped into their land and to assist/herd the	
elephants back to the protected area.	

Cross-references: Elephant behaviour field guide by Seratu Aatai, Sabah Wildlife Department (SWD), HUTAN and Oregon Zoo



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

3.5 Emergency situation

3.5.1 Personnel attacked by wildlife

	Actions	Per	rsonnel in charge
3.5.1.1	Any personnel who had encountered and chased by wildlife should report the incident to the management.	•	Respective estate management
3.5.1.2	Hospital Assistant (HA) or Medical Assistant (MA) receiving an injured patient following an attack by the wildlife need to report to the management.	•	team GS-CBU
3.5.1.3	Management office to record the incident/case and notify Conservation & Biodiversity Unit through email. conservation-and-biodiversity@sdguthrie.com		

3.5.2 Wildlife mortality and witnessing sick RTE wildlife

	Actions	Personnel in charge
3.5.2.1	Sighting of unusual behaviour, movement or/and condition of RTE wildlife (e.g., elephant in musth, abnormal excretion, etc.) should be reported verbally or/and in writing to the estate management office as soon as possible and no later than 24 hours.	 Respective estate management team
3.5.2.2	Any findings of dead RTE wildlife within the estate should be reported verbally or/ and in writing to the estate management office as soon as possible and no later than 24 hours.	
3.5.2.3	Witnesses must provide complete information, for example any sighting of body parts missing, and provide photos as evidence is encouraged.	-



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

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	Actions	Pe	ersonnel in charge
3.5.2.4	Estate management to notify through the most convenient channel of communication to local Wildlife Department officers and inform GS-CBU as soon as possible and no later than 24	•	Respective estate management team
	hours.	•	GS-CBU
3.5.2.5	Estate management to arrange for the incident site to be barricaded and to ensure that the site is not encroached until further advice from the local Wildlife Department officer.		

3.5.3 Removal of RTE wildlife

3.5.3 Re	emoval of RTE wildlife					
	Actions	P	Personnel in charge			
3.5.3.1	Where possible, the wildlife should be allowed	•	Respective estate			
	to roam and use the mature area as a		management			
	passageway in between adjacent plantations		team			
	and other land use in the landscape.	•	GS-CBU			
3.5.3.2	Translocation of RTE species should be the last	=				
	option in mitigating human-wildlife conflict.					
3.5.3.3	An exception removal can be considered in					
	situations where a serious and persistent crop-					
	raider has become habituated to all mitigation					
	measures employed and threatening the					
	safety of humans.					



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

3.6 Documentation

The result from any internal and external platforms of project collaborations related to wildlife conservation, wildlife conflict mitigation, and patrolling capability improvement in plantation should be recorded and maintained for analysis, monitoring, and reporting purposes.

Document retention and filing related to wildlife management and monitoring should be developed and recommended to include but not limited to the following items.

- a) Crops/property damage caused by wildlife (along with the insurance documents to be submitted to Finance Department Insurance & Management).
- b) RTE wildlife roaming/sighting (HCV monitoring form, wildlife photos, camera trapping, etc.).
- c) Wildlife emergency (workers being attacked by wildlife, wildlife injury and death).
- d) Wildlife conservation projects (internal and external collaborations).
- e) Electric fence maintenance details.
- f) Others.

3.7 Reporting

This procedure should complement any internal procedures that are available for addressing wildlife incidents, including the death of RTE species or damage to conservation areas within our operating areas.

Refer to the reporting flowchart for:

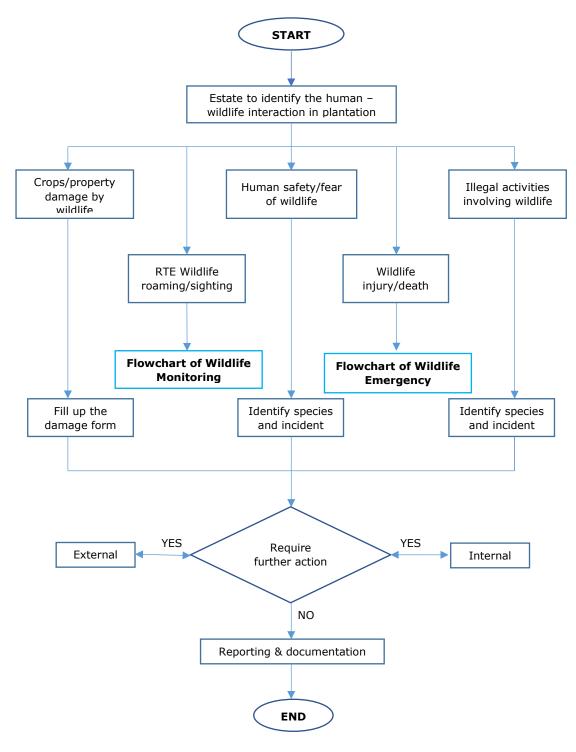
- a) Overview of wildlife management and monitoring.
- b) Wildlife monitoring (e.g., wildlife sightings, HCV area monitoring, etc.).
- c) Wildlife emergency (e.g., sick, injury and death).



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

a) Overview of wildlife management and monitoring





Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

Decision-making approach for wildlife management and monitoring

What is the wildlife conflict/interaction in your estate?	Crops/property damage by wildlife	RTE Wildlife roaming/sighting	Human safety/fear of wildlife	Wildlife injury/death	Illegal activities involving wildlife
What information	Census on damages	Wildlife Monitoring	Identify species and	Wildlife	Identify species
do you need to	- breakdown on the	Flowchart	details of incidents	Emergency	and details of
provide?	property/crop		which includes	Flowchart	incidents
	details (field and		witness details and		
	total palms) and		nature of		
	wildlife details (how		sightings/experience		
	many, what species)				
What forms to fill?	1. Crop damage form		1. HCV monitoring form		1. HCV monitoring form
	2. Insurance claim		2. Keep photos/video		2. Keep
	form (if		in the data folder		photo/video of
	applicable)		at the office		evidence in the
					data folder at
					the office



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

What is the wildlife conflict/interaction in your estate?	Crops/property damage by wildlife	RTE Wildlife roaming/sighting	Human safety/fear of wildlife	Wildlife injury/death	Illegal activities involving wildlife
Who to report the incidents to? (Records to be maintained and retrievable)	1. Management team 2. GS-CBU team 3. Wildlife Department if the wildlife persists/incident recurs 4. Police, for insurance claim		1. Management team 2. GS-CBU team 3. Wildlife Department if the wildlife persists/incident recurs 4. Jabatan Pertahanan Awam (after informing the Wildlife Department)		1. Management team 2. GS-CBU team 3. Wildlife Department if the wildlife persists/ incident recurs 4. Police, for illegal activities
When should I report?	Not later than 24 hours through the most convenient communication platform		Not later than 24 hours through the most convenient communication platform		Not later than 24 hours through the most convenient communication platform



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

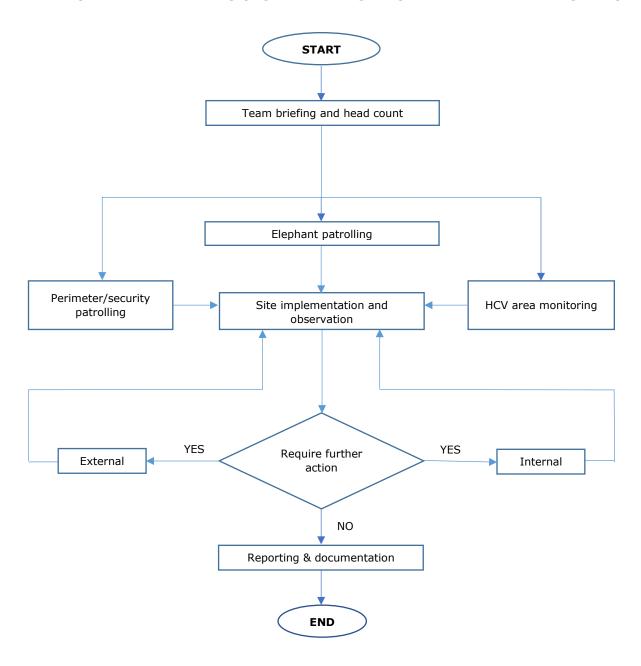
What is the wildlife conflict/interaction in your estate?	Crops/property damage by wildlife	RTE Wildlife roaming/sighting	Human safety/fear of wildlife	Wildlife injury/death	Illegal activities involving wildlife
How to mitigate/resolve for the incidents?	Physical barrier and active patrolling	Routine patrolling and management review	Subject to the identified species, awareness programme / individual consultation should be provided.	Real-time communication with other landowners and good rapport with local wildlife department	Good rapport with local wildlife department and police



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

b) Wildlife monitoring (e.g., wildlife sightings, HCV area monitoring, etc.)

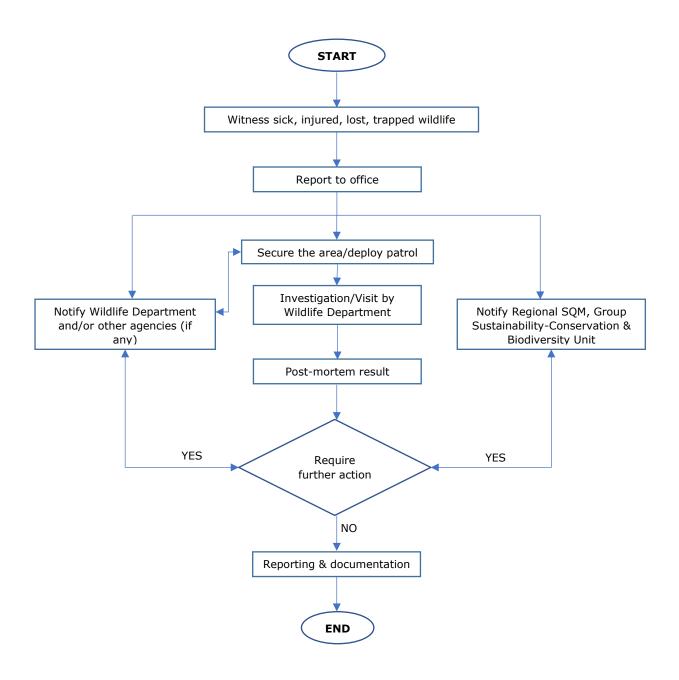




Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

c) Wildlife emergency (e.g., sick, injury and death)





Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

4. REFERENCES TO RELEVANT POLICY

This Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation should be read in conjunction with the Group Biodiversity Policy Statement and Responsible Agriculture Charter of SD Guthrie Berhad.

Other reference documents:

- a) Wildlife Conservation Enactment 1997
- b) Wildlife Conservation Act 2010 (Act 716)
- c) Wildlife Conservation (Amendment) Act 2022 (Act A1646)
- d) Wildlife Protection Ordinance 1998
- e) Bornean Elephant Action Plan for Sabah (2020-2029) by Sabah Wildlife Department, Ministry of Tourism, Culture and Environment
- f) National Elephant Conservation Action Plan (2023-2030), NECAP 2.0 by Department of Wildlife and Nature Park (DWNP)
- g) Guidelines on the Better Management Practices for the Mitigation and Management of Human-Elephant Conflict in and around Oil-Palm Plantations in Indonesia and Malaysia by WWF Malaysia. Version 1; 29 July 2005
- h) Elephant Behaviour Field Guide by Seratu Aatai, Sabah Wildlife Department (SWD), HUTAN, and Oregon Zoo
- i) Sistem Pagar Elektrik Gajah (SPEG), by PERHILITAN-MPOC-FELDA
- j) Red List of Mammals for Peninsular Malaysia, Version 2.0 by Department of Wildlife and Nature Park (DWNP), 2017
- k) IUCN Red List of Threatened Species: https://www.iucnredlist.org/
- I) IUCN Human-Wildlife Conflict Taskforce website: http://www.hwctf.org/



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

5. PROCESS OWNER

This SOP has been reviewed, revised, and updated based on the input and feedback gathered from the previous years (2022 - 2023) of collaborative work of the Elephant Technical Committees in the Johor landscape, as part of the Achieving Coexistence with Elephants (ACE) Project.

The process owner for this SOP is the Group Sustainability – Conservation & Biodiversity Unit. For further clarification, please feel free to contact the following personnel:

- Siti Norralakmam Yahya at norralakmam.yahya@sdguthrie.com or
- Nur Aida Ab Ghani at <u>nur.aida.ghani@sdguthrie.com</u>



Standard Operating Procedure for Human-Wildlife Conflicts Mitigation in Plantation

2024

APPENDICES

Appendix A	Crops /property damage form
Appendix B	HCV monitoring form
Appendix C	Electric fence maintenance form
Appendix D	SPEG guideline on elephant electric fence
Appendix E	EC Guideline on general electric fences
Appendix F	Elephant Behaviour Field Guide for Bornean Elephant