Sustainable Agriculture Network

Local Interpretation Guidelines for Sustainable Coffee and Cocoa Production in Indonesia

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Sustainable Agriculture Network (SAN):
CEFCA, Cote d'Ivoire · Fundación Interamericana de Investigación Tropical (FIIT), Guatemala · Fundación Natura, Colombia · ICADE, Honduras · IMAFLORA, Brazil · Pronatura Sur, Mexico · Rainforest Alliance · SalvaNatura, El Salvador · Royal Society for the Protection of Birds (RSPB), United Kingdom

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Introduction

The Sustainable Agriculture Network

Mission

The Sustainable Agriculture Network promotes efficient agriculture, biodiversity conservation and sustainable community development by creating social and environmental standards.

The Sustainable Agriculture Network (SAN) is a coalition of independent non-profit conservation organizations that promote the social and environmental sustainability of agricultural activities by developing standards. Standard and certification policy development and review is coordinated by the SAN secretariat based in San José, Costa Rica.

Farms and group administrators that comply with SAN standards can apply to use the Rainforest Alliance Certified™ seal for products grown on their certified farms.
For more information about the Sustainable Agriculture Network, visit our webpage: www.sanstandards.org.

Standards, Criteria and Interpretation Guidelines

The objective of the Sustainable Agriculture Standard is to provide a measure of each farm's social and environmental performance and agricultural management practices. Compliance is evaluated by audits that measure the degree of the farm's conformity to environmental, social and agricultural practices indicated in the standard criteria.

The sustainable agriculture standard consists of ten principles. Each principle is made up of criteria. The criteria describe good practices for social, environmental and agricultural management, and are evaluated by the certification process. It is important to emphasize that compliance with the standard is evaluated by comparison with the criteria, not with the interpretation guidelines. Criteria are binding for the compliance evaluation process, whereas interpretation guidelines are not.

On the other hand, interpretation guidelines just describe how good or unacceptable management practices appear, and often contain examples of both good and unacceptable social and environmental practices. In this way the interpretation guidelines guide the farm in its efforts to comply with the standard and may change according to the conditions of different countries, regions or cultures.

Objectives and Use of Interpretation Guidelines

How the *Standard for Sustainable Agriculture* with its criteria is interpreted and applied to particular situations is determined by *Interpretation Guidelines.*

- Interpretation Guidelines are not binding for certification processes, but they are important for implementing good agricultural practices on farms and provide more detailed guidance during audit processes.
- Interpretation Guidelines interpret the binding criteria of the standard for local conditions and/or a specific crop and are developed by a local Workgroup.

The development of Local Interpretation Guidelines is led by Workgroups which are coordinated by SAN's Secretariat and organized by the local technical partners. The balanced representation of different stakeholders' interests possibly influenced by these guidelines is assured and approved by SAN's Board of Directors. SAN's Secretariat coordinates the writing of local interpretation guidelines. The final version of guidelines is approved by the Secretariat to ensure no conflict of such a document with the overall *Standard for Sustainable Agriculture*.

The members of Workgroups that develop Local Interpretation Guidelines have to comply with the following requirements:

- Understanding and support for SAN's mission and vision.
- Knowledge and experience with respect to the topics under discussion.
- Comprehension of the potential influence that this document can have.
- Balanced representation of the different points of view of interested stakeholders.

These workgroups gather specific input for local interpretation guidelines, such as:

- Best farm management practices for ecosystem conservation in the region.
- Information about native trees that can be used in reforestation efforts.
- Local legislation regarding protection of ecosystems, riparian zones, endangered plants and animals, deforestation and reforestation. Also, information about local and regional conservation programs, protected areas, watersheds and corridors.
- Information about local diseases, pests, necessary agricultural practices and other factors that can influence the economic sustainability of farms.
- Local labor and occupational health laws executed by the local health and labor ministries or related authorities that can orient farms to implement their social policies.
- Best practices for erosion prevention and waste management.

Scope of these Interpretation Guidelines

Geographical Scope

These guidelines are applicable to coffee and cocoa production in Indonesia, and cover mainly the smallholder context.

Proceedings

The first workshop for the development of local interpretation guidelines for sustainable coffee and cocoa production in Indonesia was held on the 27th January 2011 at the Hotel Bukit Randu in Lampung/Sumatra. Altogether, a well-balanced group of stakeholders from the Indonesian coffee and cocoa sector took part in this workshop.

The stakeholders identified criteria in need of local interpretation and subsequently started developing local interpretations for the selected criteria. Based on the input generated during the first workshop, a draft document was then circulated in April 2011 among the invited participants for their input and feedback.

The second workshop was held on the 2nd of May 2011 at the Papyrus Hotel in Bogor/Java. Again a well-balanced stakeholder group contributed actively towards the review and refinement of the first draft document. Additionally, the participants added five more criteria for interpretation to the document. A second draft document was generated from this workshop and shared with all stakeholders for their review and feedback. The third and final workshop was held on the 4th of July 2013 at the Aston Rasuna Hotel in Jakarta. During a half day session the invited stakeholders concluded on the remaining open issues and provided the input required to come up with this final version of the *Local Interpretation Guidelines for Sustainable Coffee and Cocoa Production in Indonesia*.

Covered Aspects

The following aspects are subject to local interpretation in this document:

- Principle 1: Social and Environmental Management System
- Principle 2: Ecosystem Conservation
- Principle 3: Wildlife Protection
- Principle 4: Water Conservation
- Principle 5: Fair Treatment and Good Working Conditions for Workers
- Principle 6: Occupational Health and Safety
- Principle 7: Community Relations
- Principle 8: Integrated Crop Management
- Principle 9: Soil Management and Conservation
- Principle 10: Waste Management

Table 1: Recommended applicability level of criteria in the smallholder context

(Recommendation only!)

Criteria	Smallholders	Group Administrator	Remark
1.1		x	The Social and Environmental Management System is designed at the group level.
1.2	x	x	Continuous improvement is both required at the individual farm level as well as at the group level.
1.3	x	x	
1.4	x	x	Individual farmers need to inform their hired farm workers; the group administrator needs to inform its group members.
1.5	x	x	Some documents may be kept at the farm level and others at the group level.
1.6		x	In the smallholder context, impacts are more likely to occur at the group level than at the individual farm level.
1.7		x	Hiring of workers is less common. However, at the group level there is a simple system how to handle complaints of workers.
1.8		x	Hiring of service providers is less common. However, at the group level there is a simple system how to check and ensure compliance of service providers.
1.9		x	
1.10	**x**	**x**	**Critical Criterion**
1.11	x	x	
2.1	**x**	**x**	**Critical Criterion**
2.2	**x**	**x**	**Critical Criterion**
2.3	x		
2.4	x	x	
2.5	x		
2.6	x		
2.7	x		
2.8	x		
2.9	x	x	The group administrator supports members, when connectivity across several farms/landscape level is concerned.
3.1		x	One inventory for a group of farmers within a close and homogenous wildlife habitat area is acceptable; in the case that the group is big and

Criteria	Smallholders	Group Administrator	Remark
			distributed over different areas, the group administrator has a wildlife inventory for each wildlife habitat type.
3.2	x		
3.3	**x**	**x**	**Critical Criterion**
3.4	x		
3.5	x		
3.6	x		
4.1	x	x	
4.2	x		However, less likely that smallholders would require any permits as the abstracted water volumes are minor.
4.3	x		However, less likely that smallholder would make use of irrigation.
4.4	x		
4.5	**x**	**x**	**Critical Criterion**
4.6	x		
4.7	**x**	**x**	**Critical Criterion**
4.8	x		
4.9	x	x	Less likely to occur in the smallholder context. However, in case this occurs, both the farm as well as group administrator are involved in the monitoring and analysis program.
5.1		x	
5.2	**x**	**x**	**Critical Criterion**
5.3		x	
5.4		x	
5.5	**x**	**x**	**Critical Criterion**
5.6	x	x	
5.7	x	x	
5.8	**x**	**x**	**Critical Criterion**
5.9	x	x	
5.10	**x**	**x**	**Critical Criterion**
5.11	x	x	
5.12		x	
5.13		x	
5.14		x	
5.15	x	x	Laboratory tests for analysis of the potable water quality can be organized by the group administrator.
5.16	x	x	
5.17	x	x	
5.18		x	
5.19	x	x	
6.1		x	
6.2		x	
6.3		x	
6.4		x	
6.5		x	
6.6	x	x	
6.7	x	x	
6.8	x	x	
6.9	x	x	
6.10	x	x	

Criteria	Smallholders	Group Administrator	Remark
6.11	n.a.	x	If smallholders comply with criteria 6.7 to 6.10, then they would automatically comply with 6.11 and there would not be the need to consider the separations a) – e).
6.12	x	x	
6.13	**x**	**x**	**Critical Criterion**
6.14	x	x	
6.15	x	x	
6.16	x	x	
6.17	x	x	
6.18		x	
6.19	x	x	
6.20		x	
7.1		x	
7.2		**x**	**Critical Criterion**
7.3		x	
7.4		x	
7.5		x	
7.6	x		
8.1	x		
8.2	x		
8.3	x		
8.4	**x**	**x**	**Critical Criterion**
8.5	x		
8.6	**x**	**x**	**Critical Criterion**
8.7	x		However, it is less popular to do post harvest fumigation at the smallholder level.
8.9	x		
9.1	x	x	The group administrator assists in the program design.
9.2	x	x	The group administrator assists in the program design.
9.3	x		
9.4	x		
9.5	**x**	**x**	**Critical Criterion** **If this situation arises, the group administrator should assist in conducting a land use capacity study.**
10.1	x	x	The group administrator assists in the program design.
10.2	x	x	The group administrator assists to obtain the right design and permits if the group decides to operate an incinerator.
10.3	x		
10.4		x	Similar to 1.8
10.5	x		
10.6	x	x	

Interpretation Guidelines for Sustainable Coffee and Cocoa production in Indonesia

The following Local Interpretation Guidelines highlight particular issues that are challenging to interpret in the Indonesian coffee and cocoa context. Consequently, not all the SAN standard criteria are discussed here. As cocoa and coffee is mainly produced by smallholders in Indonesia, this interpretation is focusing on the smallholder production system. For this draft version, all interpreted criteria are applicable to both crops.

The following tables are organized by the relevant principle of the Sustainable Agriculture Standard and contain two main sections:

1. Upper cell: The relevant section of the criterion is referenced in bold letters as a textual copy of the valid version of SAN's Sustainable Agriculture Standard.
2. Lower cells: The local interpretation guidelines that interpret the relevant binding criteria for the environmental and social conditions in Indonesia.

1. SOCIAL AND ENVIRONMENTAL MANAGEMENT SYSTEM

1.10	***Critical Criterion.*** **The farm must have a system for avoiding the mixing of certified products with non-certified products in its facilities, including harvesting, handling, processing and packaging of products, as well as transportation. All transactions involving certified products must be recorded. Products leaving the farm must be duly identified and accompanied with the relevant documentation indicating a certified farm as origin.**
Farms have records to separate certified products from non-certified products. Additionally, the group administrator keeps all required traceability documentation at the group level (e.g. yield projections and actual certified produce harvested per group member). The volume in the traceability documentation at the group administrator level and the information provided by each smallholder through his/her on farm documentation do not contradict each other.	

1.11	**The farm must annually describe its energy sources and the amount of energy used from each source for production processes, transport and domestic use within the farm limits. The farm must have an energy efficiency plan with goals and implementation activities for increased efficiency, for reducing dependency on non-renewable sources and for increasing the use of renewable energy. Where appropriate, the use of on-farm energy sources must be preferred.**

The below steps provide guidance to both larger producers and smallholders/group administrators:

a. Producers and group administrators identify processes and activities, which require energy for farming/processing activities and energy for domestic activities.
b. Producers and group administrators document the source and amount of energy used per activity at the farming/processing and domestic level.
c. In the smallholder context, the group administrator is responsible to ensure that the energy use is recorded and supports the smallholder if needed (e.g. illiteracy of smallholder).
d. Subsequently, the producers and group administrators draw an efficiency plan resulting from the analysis of the energy consumption. This efficiency plan aims to reduce inefficiencies in energy consumption at the farm/processing and domestic level. Energy saving targets are defined.
e. The efficiency plan and its resulting energy saving targets are becoming part of the overall continuous improvement plan. Producers and the group administrator continuously monitor the energy consumption (as described in step b)). If needed, adjustments are made to the targets set in the energy efficiency plan (e.g. change of people living in the household, change of production area, change of processing volumes, change of energy sources).

<u>Smallholder context:</u>

In the smallholder context, steps a) – e) can be recorded in a simple table format. Such a table may cover the following columns:

- Number of people per household/farm,
- Energy sources used,
- Purpose of energy consumption/device used (for example cooking with clay stove),
- Quantity consumed in a set time frame (for example kg of fire wood used per week),
- Set energy reduction target per energy source on a defined timeline (this may only be necessary if energy consumption is high compared to peer group; defined timeframe can be until next audit – e.g. 1 year).

2. ECOSYSTEM CONSERVATION

2.2 ***Critical Criterion.*** **From the date of application for certification onwards, the farm must not destroy any natural ecosystem. Additionally, from November 1, 2005 onwards no high value ecosystems must have been destroyed by or due to purposeful farm management activities. If any natural ecosystems have been destroyed by or due to purposeful farm management activities between November 1, 1999 and November 1, 2005, the farm must implement the following analysis and mitigations:**

a. Conduct an analysis of the ecosystem destruction to document the scope and ecological impact of the destruction.

b. Develop a mitigation plan with advice from a competent professional that is consistent with applicable legislation and that compensates for the negative impact.

c. Implement the activities of this mitigation plan, including for example the set aside of a significant percentage of the farm area for conservation purposes.

This criterion will be discussed and interpreted in a separate High Value Ecosystem/Natural Ecosystem document for Indonesia.

2.3 Production areas must not be located in places that could provoke negative effects on national parks, wildlife refuges, biological corridors, forestry reserves, buffer zones or other public or private biological conservation areas.

- Information on the location of National Parks is available from two institutional levels in Indonesia:
  - Provincial level: Hutan Lindung
  - National level: National park maps
- Data on conservation areas (e.g. National Parks, Wildlife Sanctuaries, Natural Reserves) is available for whole Indonesia in form of maps (refer to P.50/MENHUT-II/2009). This data may not be accurate with regard to the exact boundaries. However, the respective management unit of a conservation area is supposed to have approved accurate maps and field signs.

2.5 There must be a minimum separation of production areas from natural terrestrial ecosystems where chemical products are not used. A vegetated protection zone must be established by planting or by natural regeneration between different permanent or semi-permanent crop production areas or systems. The separation between production areas and ecosystems as defined in Annex 1 must be respected.

2.6 Aquatic ecosystems must be protected from erosion and agrochemical drift and runoff by establishing protected zones on the banks of rivers, permanent or temporary streams, creeks, springs, lakes, wetlands and around the edges of other natural water bodies. Distances between crop plants and aquatic ecosystems as indicated in Annex 1 must be respected. Farms must not alter natural water channels to create new drainage or irrigation canals. Previously converted water channels must maintain their natural vegetative cover or, in its absence, this cover must be restored. The farm must use and expand vegetative ground covers on the banks and bottoms of drainage canals.

2.7 The farm must establish and maintain vegetation barriers between the crop and areas of human activity, as well as between production areas and on the edges of public or frequently travelled roads passing through or around the farm. These barriers must consist of permanent native vegetation with trees, bushes or other types of plants, in order to promote biodiversity, minimize any negative visual impacts and reduce the drift of agrochemicals, dust and other substances coming from agricultural or processing activities. The distance between the crop plants and areas of human activity as defined in Annex 1 must be respected.

Smallholder context:

a. The distances specified in the table of **Annex 1** cover no-spray-zones. Smallholders continue cultivating crops within such a no spray buffer zone as long as they do not use any agrochemical. Certain non-toxic organic inputs for pest control (like pheromone traps) can be allowed yet need to be advised upon in a case-by-case scenario (e.g. through the trainer or group administrator). Smallholders can use organic fertilizers, if the no spray buffer zone is bordering housing areas, roads, and terrestrial ecosystems. However, if the no-spray-zone is bordering aquatic ecosystems, no fertiliser is applied within this zone, to minimize the risk of eutrophication in the water body.
b. In addition to the no-spray-zone, the following type of vegetative barriers are planted within the buffer zone:
    - Native vegetation that provides a good vegetative barrier
    - Pisang/Banana (*Musa acuminata* × *balbisiana*)
    - Salak/Snake fruit (*Salacca zalacca*)
    - Rumput gajah/Nappier grass (*Penniscitum purpureum*)
    - Bambu/Bamboo
    - Kembang sepatu/Hibiscus (*Hibiscus rosa-sinensis L.)*
    - Keji beling (*Sthrobilantes crispus BL*)
    - Han juang (*Cordyline sp.)*
    - Bunga soka (*Ixora javanica*)
    - Daun mangkokan (*Nothopanax scutellarium* Merr*.)*
    - Puring (*Codiaeum variegatum*)
    - Suji (*Sansevieria trifasciata*)
    - Pandan (*Pandanus tectorius*)
    - Nanas (*Ananas eomosus*)
    - Lidah buaya (*Pleomele angustifolia*)
    - Mirten (*Malphigia sp*)

- Recommended planting distances:
    - Between production area and houses/roads: one tree line;
    - Between production areas and river, lakes, springs: two to three lines of trees/shrubs.

c. The no-spray-zones (buffer zone) are marked to distinguish them from production areas with agrochemical application. The mark can be made of a vegetative line, a sign with text, or a painted ring around shade trees/cocoa trees.
d. Jatropha is allowed to be used as vegetative barrier on a certified farm – but Jatropha is not covered under the scope of certified crops (see SAN Certification Policy).

Plantation context:

a. New plantations respect at least the standard requirement; e.g. no production buffer zones as required in Annex 1. New plantations or expansion of plantations also refer to other criteria (2.2 and 9.5).
b. Existing plantations have a minimum no-spray-zone of the cultivated crop as described in the smallholder scenario and aim in their continuous improvement program to transform cultivated buffer zones to no production buffer zones.
c. Any free pesticide zone (buffer zone) is clearly marked to distinguish it from production area with agrochemical application. The mark can be made of a vegetative line, a sign with text or a painted ring around shade trees/cocoa trees.
e. Jatropha is allowed to be used as vegetative barrier on a certified farm – but Jatropha is not covered under the scope of certified crops (see SAN Certification Policy).

Refer to Annex 1 for the distance specifications.

2.8 Farms with agroforestry crops located in areas where the original natural vegetative cover is forest must establish and maintain a permanent agroforestry system distributed homogenously throughout the plantations. The agroforestry system's structure must meet the following requirements:

a. The tree community on the cultivated land consists of minimum 12 native species per hectare on average.

b. The tree canopy comprises at least two strata or stories.

c. The overall canopy density on the cultivated land is at least 40%.
Farms in areas where the original natural vegetation is not forest – such as grasslands, savannas, scrublands or shrub lands - must dedicate at least 30% of the farm area for conservation or recovery of the area's typical ecosystems. These farms must implement a plan to establish or recover natural vegetation within ten years.

Certified farms preferably plant native shade trees of as many different species as possible. Certified farms do not plant shade trees of invasive exotic species. If a certified farm had planted invasive exotic shade trees, it replants them with native shade trees. Scheduled replanting activities are then documented in the farm's continuous improvement plan with the most soonest replanting to take place in the farm's area next to terrestrial ecosystems (to prevent the spread of invasive species into the bordering natural ecosystems or high value ecosystems).

Note that *Leucaena leucocephala* (local name "Lamtoro") is an aggressive invasive species to Indonesia and is not planted on certified farms. For more details consult the list of the 100 most invasive species by IUCN/SSC: http://www.issg.org/database/species/search.asp?st=100ss&fr=1&str=&lang=EN

Coffee:

The recommended canopy density for coffee is ranging for most coffee growing areas in Indonesia from 50% - 70%. Certified farms use native shade trees but may also use exotic shade trees. However, certified farms do not use invasive shade trees.

Recommended ***native*** shade trees for Arabica Coffee are:

- *Albizia chinensis* (Sengon)
- *Albizia lebbeck* (Sengon)
- *Albizia procera* (Sengon)
- *Erythrina variegata* (Dadap)
- *Citrus maxima* (Jeruk Keprok; Pummelo)

Recommended ***native*** shade trees for Robusta Coffee are:

- *Albizia chinensis* (Sengon)
- *Albizia lebbeck* (Sengon)
- *Albizia procera* (Sengon)
- *Erythrina variegata* (Dadap)
- *Citrus maxima* (Jeruk Keprok; Pummelo)
- *Cocos nucifera* (Kelapa; Coconut)

Certified smallholder farms are advised to have minimum five different native shade tree species on their coffee plot.

Cocoa:

The recommended canopy density for cocoa is ranging for most Indonesian cocoa growing areas from 50% (young crops) to 30% (productive crops). Certified farms use native shade trees, but may also use exotic shade trees. However, certified farms do not use invasive shade trees.

Recommended ***native*** shade trees for Cocoa are:

- *Albizia chinensis* (Sengon)
- *Albizia lebbeck* (Sengon)
- *Albizia procera* (Sengon)
- *Cocos nucifera* (Kelapa; Coconut)
- *Azadirachta indica* (Nimba; Neem)

Overall, certified farms are advised to have a minimum of five different native shade tree species on their cocoa plot.

To extend your search for suitable and ***native*** shade tree species we recommend ICRAF's worldagroforestry database: http://www.worldagroforestry.org/resources/databases/agroforestree

- Under the category of "Distribution Range" select "native" and enter "Indonesia" into the empty box.
- Under the category of "Products and Services" select "Shade/Shelter".
- On the right side of the screen, a list with shade/shelter trees native to Indonesia appear, which allows you to search for more specific data per listed species.
- Additionally, the IUCN redlist database provides you with further information on the native range of a particular species: http://www.iucnredlist.org

3. WILDLIFE PROTECTION

3.1	**An inventory of wildlife and wildlife habitats found on the farm must be created and maintained.**
3.2	**Ecosystems that provide habitats for wildlife living on the farm, or that pass through the farm during migration, must be protected and restored. The farm takes special measures to protect threatened or endangered species.**

- A list of protected/endangered fauna species is provided in **Annex 2.**
- A list of protected ecosystems will be provided in a separate 2.2 interpretation document.
- The Ministry of Forestry may provide up to date lists on protected/endangered species in Indonesia. The NGO ProFauna may be contacted to receive advice on human – wildlife conflicts. In any case, the killing of animals due to human – wildlife conflicts is avoided and is the very last option in an emergency case only. Any animal that got killed due to a human - wildlife conflict is documented in the farm records. The incident is brought to the attention of the auditor during the next audit, and the incidence is reported to the authorities (BKSDA/Natural Resource Conservation Agency of the Ministry of Forestry).
- The wildlife inventory is designed for a respective landscape/homogenous wildlife habitat. In the case, where a plantation or smallholder group stretches over several landscapes, a wildlife inventory for each landscape area is designed.

3.3 ***Critical Criterion.*** **Hunting, capturing, extracting and trafficking wild animals must be prohibited on the farm. Cultural or ethnic groups are allowed to hunt or collect fauna in a controlled manner and in areas designated for those purposes under the following conditions:**

- **a. The activities do not involve species in danger of or threatened with extinction.**
- **b. There are established laws that recognize the rights of these groups to hunt or collect wildlife.**
- **c. Hunting and collection activities do not have negative impacts on the ecological processes or functions important for agricultural and local ecosystem sustainability.**
- **d. The long-term viability of the species' populations is not affected.**
- **e. These activities are not for commercial purposes.**

3.4 The farmer must keep an inventory of the wild animals held in captivity on the farm, and implement policies and procedures to regulate and reduce their tenancy. Endangered or threatened species must not be held in captivity.

As of today it is common to find caged birds from the wildlife in Indonesian farm households. Indonesian coffee farmers may also occasionally keep Luwaks *(Paradoxurus hermaphrodites (lc); Pardofelis marmorato (vul))*. The below interpretation of critical criterion 3.3 applies to these cases:

Caged Birds:
From the date of application for certification onwards farmers do not capture any birds from the wildlife (indifferent if protected or non-protected species). They do not acquire wild caged birds.

Luwaks:
There are various types of Luwaks known to Indonesia. While *Paradoxus hermaphrodites* is of least concern (IUCN red list) and the most common type of Luwak kept in captivity, there are also other Luwak species like *Pardofelis marmorato* considered vulnerable (IUCN red list).
In any case, it is a non-compliance with critical criterion 3.3 to capture any luwak species from the wild or to acquire from another person any luwak species originated from the wild, as from the date of application for certification onwards. Therefore, farmers must not keep luwaks in captivity. If the farmer is able to document that the luwak is in captivity from its 3rd generation onwards, it is not a non-compliance with 3.3 any longer but potentially with criterion 3.4; esp. if it is a threatened luwak species.

Human – Wildlife Conflict:
The NGO ProFauna as well as the BKSDA/Natural Resource Conservation Agency of the Ministry of Forestry can be contacted to receive advice on human – wildlife conflicts. In any case, the killing of animals due to human – wildlife conflicts is avoided and the very last option in an emergency case only. Any animal killed due to a human - wildlife conflict is documented in the farm records. The incident is brought to the attention of the auditor during the next audit, and the incidence is reported to the authorities (BKSDA/Natural Resource Conservation Agency of the Ministry of Forestry).

Fishing in aquatic natural ecosystems:
According to Indonesian legislation UU No 5, 1990, fishing may be allowed for non-protected species only. Additionally, to be in compliance with critical criterion 3.3, fishing activities are not for commercial purpose. However, fishing in man made water bodies, such as farm ponds, is not covered by critical criterion 3.3 and therefore not a non-compliance in such a case.

Hunting for pest control:
Wild pig/boar and rat are categorized as pests in Indonesia. Hunting for population control purpose is therefore allowed on certified farms. The BKSDA can be contacted for an up to date list of pest species.

3.4 The farmer must keep an inventory of the wild animals held in captivity on the farm, and implement policies and procedures to regulate and reduce their tenancy. Endangered or threatened species must not be held in captivity.

As of today, it is common to find caged birds from the wild in Indonesian farm households. Indonesian coffee farmers may also occasionally keep luwaks *(Paradoxurus hermaphrodites; Pardofelis marmorato)*. The below interpretation applies to those cases for criterion 3.4:

Luwak:
If farmers acquired a luwak from the wildlife prior to the date of application for certification, they ensure that the luwak is kept under animal welfare conditions and whenever possible, measures are taken to release the animal back into the wild in compliance with criterion 3.6.

In any case, it is not allowed to market "*Rainforest Alliance Certified Luwak Coffee*", if the production process involved a luwak held in captivity! The luwak species *Pardofelis marmorato* is considered a vulnerable species by the IUCN red list – thus keeping such a luwak in captivity is a non-compliance with this criterion.

Caged Birds:
If farmers acquired caged birds from the wild prior to the date of application for certification, they ensure that these birds are kept under animal welfare conditions and whenever possible, measures are taken to release those birds back into the wild in compliance with criterion 3.6.

4. WATER CONSERVATION

4.1 The farm must have a water conservation program that ensures the rational use of water resources. The program activities must make use of the best available technology and resources. It must consider water re-circulation and reuse, maintenance of the water distribution network and the minimizing of water use. The farm must keep an inventory and indicate on a map the surface and underground water sources found on the property. The farm must record the annual water volume provided by these sources and the amount of water consumed by the farm.

In the Indonesian context, water is oftentimes used excessively due to its abundant availability. However, certified farms make rational use of water, both for domestic and in processing operations and:

- Consume water when needed only – no waste of water (e.g. by running open taps).
- A map indicates the water sources found on the farm.
- The farm minimizes its water use (record of water use), and does re-use and re-circulate (a system or plan is implemented) water whenever possible and needed.
- Include the reduction of water usage in their continuous improvement plan.

Producer and community trainings focus on building a more water conscious behaviour of people living on certified farms and in nearby communities. Farms not yet complying with the requirements of criterion 4.1 are supported by the group administrator to establish and follow up on a continuous improvement plan that considers the above recommendations.

Smallholder farms estimate their daily water consumption by measuring for one day the number of water buckets consumed by the people living on the farm. This information is then used to estimate the weekly/monthly/annual domestic consumption.

Related legislation:

- PERATURAN PEMERINTAH REPUBLIK INDONESIA
- NOMOR 43 TAHUN 2008
- TENTANG AIR TANAH

4.5 *Critical Criterion.* The farm must not discharge or deposit industrial or domestic wastewater into natural water bodies without demonstrating that the discharged water complies with the respective legal requirements, and that the wastewater's physical and biochemical characteristics do not degrade the receiving water body. If legal requirements do not exist, the discharged wastewater must comply with the following minimum parameters:

Water Quality Parameter	Value
Biochemical Oxygen Demand ($DBO_{5,20}$)	Less than 50 mg/L
Total suspended solids	
pH	Between 6.0 – 9.0
Grease and oils	Less than 30 mg/L
Fecal coliforms	Absent

The mixing of wastewater with uncontaminated water for discharge into the environment is prohibited.

This criterion sets the national legal requirements above the SAN requirements. Thus, the below Indonesian legislations apply:

a) Keputusan menteri negara lingkungan hidup
Nomor : kep- 51/menlh/10/1995 tentang baku mutu limbah cair bagi kegiatan industri
b) Keputusan menteri negara lingkungan hidup; Nomor 112 tahun 2003; Tentang baku mutu air limbah domestic
c) Peraturan Pemerintah; No. 18 Tahun 1999; Tentang: Pengelolaan Limbah Bahan Berbahaya dan Beracun

Overall, if a provincial legislation has been gazetted, that one applies as well.

5. FAIR TREATMENT AND GOOD WORKING CONDITIONS FOR WORKERS

5.2 ***Critical Criterion.*** **The farm must not discriminate in its labor and hiring policies and procedures along the lines of race, color, gender, age, religion, social class, political tendencies, nationality, union membership, sexual orientation, civil status or any other motive as indicated by applicable laws, ILO Conventions 100 and 111, and this standard. The farm must offer equal pay, training and promotion opportunities and benefits to all workers for the same type of work. The farm must not influence the political, religious, social or cultural convictions of workers.**

On certified farms, men and women receive the same payment for the same kind and duration of work. In some places of Indonesia it is common that women earn less than men for the same kind and duration of work (e.g. in Kintamani/Bali). This is a discriminating practice and thus a non-compliance with this critical criterion. Specifically in the smallholder context, trainers and group administrators need to ensure that certified farms pay men and women equally. In the preparation for certification, trainers and group administrators pay special attention on sensitising their group members about these issues.

5.5 ***Critical Criterion.*** **Workers must receive pay in legal remuneration greater than or equal to the regional average or the legally established minimum wage, whichever is greater, according to their specific job. In cases where the salary is negotiated through collective bargaining or other pact, the worker must have access to a copy of this document during the hiring process. For production, quota or piecework, the established pay rate must allow workers to earn a minimum wage based on an eight-hour workday under average working conditions, or in cases where these conditions cannot be met.**

Legal Background in Indonesia:

The Provincial Governor to each district proposes a district minimum wage, which is based on the minimum living cost in the respective district. Subsequently the governor gazettes:

1) A provincial minimum wage (UMP) as threshold of wages in the province - based on the lowest minimum living cost among all the districts in the province, and
2) The respective district minimum wages (UMK) for each district in the province. **The UMK is in force in each respective district, not the UMP**. Therefore the industry in a certain district complies with its particular district UMK. It may be the case that some districts have their UMK being equal to the UMP as those would be the districts with the lowest minimum living cost in the province.

Thus, the minimum payment is based on the legally established minimum wage (UMK) of the respective district. Those minimum wage calculations per district (UMK) are established for formal workers, but not always for informal or piece rate workers.

Calculation of minimum wage for informal workers and piece rate workers:

In case, a district has not specified the minimum wage for informal workers, their minimum wage is based on a per day rate calculation of the formal workers minimum wage within that district.

In case a province has not specified the minimum wage for piece rate workers, their piece rate remuneration at least needs to meet - under an average work performance of an 8h daily work schedule and considering the working conditions - the minimum daily wage for formal workers within that district.

Minimum wage set by collective bargaining agreement:

Collective bargaining agreements between company and worker associations exist only in some areas of Indonesia, but not in all. These agreements are mostly two party and informal. The Indonesian legislation, as defined in the Labour Act, requires a three party collective bargaining agreement: Worker union, company, and labour office agency. However, if the collective bargaining agreement has defined a minimum wage at or above the respective UMK, then the minimum wage defined in that bargaining agreement applies (as it is not

in contradiction with the UMK). If the minimum wage defined in the agreement is below the UMK, then the higher and legally set minimum wage (UMK) of that district applies.

Exceptions:
Exceptions may be made if a company cannot afford a newly set district minimum wage (UMK). In that case the company can ask for exclusion for a limited period of time (max. 6 months) before adopting salary payments to the newly calculated minimum wage. If a company opts for this exclusion period, it first needs to acquire approval from the labour agency. Certified farms operating under that exclusion are in compliance with critical criterion 5.5., provided they do:
a) Have the approval from the labour agency, and
b) Are not exceeding the exclusion period beyond 6 months.

Minimum wage payment in the smallholder context:
Employees on smallholder farms must equally receive at least the minimum wage as defined in each district. If these employees do only perform hourly duties, the minimum wage is calculated down to an hourly wage. If payment is partially in cash and partially in kind, there needs to be a fair calculation in place to proof that the total remuneration is at least up to minimum wage. The group administrator can help by establishing an in kind-cash value table for that district. However, the worker decides for in kind payment or cash payment.

5.9 When applicable laws permit, minors between 12 and 14 years old may work part-time on family farms, only if they are family members or neighbors in a community where minors have traditionally helped with agricultural work. The schedule for these minors including school, transportation and work must not exceed ten hours on school days or eight hours on non-school days, and must not interfere with educational opportunities. The following conditions must be fulfilled:

- **a. These workers must have the right to one rest day for every six days worked and rest breaks during the workday the same as or more frequently than contracted workers.**
- **b. They must not form part of the farm's contracted workforce.**
- **c. They must not work at night.**
- **d. They must not handle or apply agrochemicals or be in areas where they are being applied.**
- **e. They must not carry heavy loads nor do work that requires physical exertion unsuitable for their age.**
- **f. They must not work on steep slopes (more than 50% incline) or in high places (ladders, trees, roofs, towers or similar places).**
- **g. They must not operate or be near heavy machinery.**
- **h. They must not do any type of work that may affect their health or safety.**
- **i. They must get periodical training for the work they do.**
- **j. They must be under the supervision of a responsible adult in order to guarantee that they understand how to do their work safely.**
- **k. Transportation must be provided to and from home if workers have to travel in the dark or in conditions that put their personal safety at risk.**

Smallholder context:
This criterion applies solely to the smallholder context, and only under the conditions set out by the criterion. Further, the Indonesian legislation prohibits the work of minors below the age of 13 [article 68]. The legislation allows minor workers of 13-15 years old, to do light work as long as this doesn't conflict with their physical, mental and social development and health [article 69a] or with their educational opportunities.
Minors working part time on family or neighbouring smallholder farms within the same community are minimum 13 years old. During school days these minors are allowed to work for a max. of 2h/day (including

transport to and from the farm); on non school days these minors are allowed to work a max. of 8h/day (including transport to and from the farm). Additionally a) – k) of above criterion apply.

Estates:
Minors below the age of 15 are not employed on estates.
Additionally, article 6 of the National Education Act requires that:

- Every citizen at age 7-15 undertake basic education;
- Parents facilitate the education of their children.

5.15 All workers of the farm and persons living on the farm must have access to potable water. Sufficient supply of potable water must be provided to all workers and must be available at the work site. The farm must be able to demonstrate that the water provided complies with the physical and chemical parameters and other characteristics established in applicable laws or in their absence, with the following critical parameters defined by the World Health Organization (WHO):

Parameter	Value
Fecal Coliforms	Zero
Chlorine residue or residue from other treatment disinfectants	0.2 to 0.5 mg/L
Nitrates	10 mg/L as nitrates
pH	6.5 to 8.5
Sodium	20 mg/L
Sulphates	250 mg/L
Turbidity	Less than or equal to 5 NTU

Non-family farms that obtain water from their own sources - water not supplied by aqueducts managed by other entities - must have a periodic drinking water monitoring and analysis program that includes:

a. Identification of water sources on a map and on the farm.
b. Policies and procedures for guaranteeing the protection of water sources.
c. Sampling procedures and sampling locations and frequency.
d. Analyses conducted by a legally recognized laboratory (certified or authorized).
e. A record of the results for the last three years or since the certification process was initiated.

Additional analysis may be requested in order to ensure quality when evidence of direct or indirect contamination (such as erosion) of surface or underground water exists.

Parameters and values of potable drinking water are set by the Indonesian Ministry of Health. Peraturan Menteri Kesehatan RI No. 907/MENKES/SK/VII/2002 Tanggal: 29 July 2002. Summary:

Parameter	Unit	Maximum amount
E. Coli or fecal coli	Amount per 100 ml sample	0
pH	-	6.5 – 8.5
Total soluble solid	mg/l	1000
Chlorine	µg/l	600-1000

Smallholder context:
In the smallholder context potable drinking water can be supplied in the following way: Either the farmers bring potable water to workers or take water from a natural spring and boil it before it is used as drinking water.
Laboratory tests of drinking water for each and every smallholder farm are not applicable. In cases smallholders provide non-potable drinking water to their workers without boiling it, the group administrator organises annual stratified random testing to demonstrate compliance with this criterion.

6. OCCUPATIONAL HEALTH AND SAFETY

6.10	**The farm must store agrochemicals in a manner that minimizes potential negative impacts on human health and on the environment. The farm must store only the amount of agrochemicals necessary to meet short-term needs. These products must be separated according to their biocide, toxicity and chemical formula. They must not be stored on the floor nor come within contact with absorbent materials. A Material Safety Data Sheet must be kept in the storage facility for each chemical product stored. All agrochemical containers must be washed three times before being stored for disposal or return to supplier. All agrochemical containers must maintain their original labels. The farm must take actions to return to the supplier agrochemicals that are prohibited, expired, or not legally registered, or agrochemicals that have had their licenses canceled. If the supplier will not accept them, the farm must seek safe alternatives for eliminating them.**
On large farms (above 50ha) short-term needs are defined as agrochemicals used within a maximum three months period; on smallholder farms, short-term needs are defined as agrochemicals used within a maximum one year period.	

6.11	**The farm must demonstrate that the locations of agrochemical and fuel storage areas comply with applicable laws. If applicable legislation does not exist and if the design, construction and management of these facilities do not comply with some or all of the requirements indicated in Criteria 6.7 to 6.10, the following separations must be maintained:** **a. Sixty meters from buildings used by people on a daily basis (housing, health centres, schools, recreation areas, offices, etc.).** **b. One hundred meters from public roads.** **c. One hundred and twenty meters from rivers, streams and lakes.** **d. Two hundred meters from water wells or springs used for human consumption.** **e. For agrochemical storage facilities, at least 50 meters from fuel storage tanks.**
For producers that comply with criteria 6.7 to 6.10, this criterion is not applicable.	

6.13	***Critical Criterion.*** **All workers that come into contact with agrochemicals, including those who clean or wash clothes or equipment that has been exposed to agrochemicals, must use personal protection equipment. The farm must provide this equipment in good condition, and must provide incentives to workers to use the equipment. The equipment must reduce contact with the agrochemicals and the possibility of acute or chronic poisoning, and must comply with the strictest of the following requirements: a) the requirements indicated on the products' Material Safety Data Sheet, b) any applicable laws; or c) the equipment indicated in Annex 2 of this standard.**
PPE is chosen depending on the kind of agrochemicals used (and their accompanying MSDS). Agrochemicals of higher toxicity levels require more sophisticated PPEs than less toxic agrochemicals. In the smallholder context it is recommended that the group administrator lists all agrochemicals used by the group members and recommends the appropriate PPE for each agrochemical in that list (based on the MSDS and Annex 2 of the SAN Standard). It is an option for group members to share certain PPE elements (e.g. to safe costs, especially for the more expensive elements of a PPE set).	

7. COMMUNITY RELATIONS

7.2	***Critical Criterion*. The farm management must implement policies and procedures for identifying and considering the interests of local populations and community interest groups regarding farm activities or changes that could have an impact on their health, employment or local natural resources. The farm must document and make available for public view all complaints and comments it receives related to its activities and its replies to them.**

a. In case of the construction of new infrastructure (e.g. buildings, roads), the following series of permissions are acquired:
    a. A permission or declaration of acceptance is required from the affected community of such an infrastructure investment. (HO [Ijin Gangguan] and IMB).
    b. Permission or declaration of acceptance is necessary to get an official permission to disturb.
    c. Permission to disturb is necessary to get construction permission – (all three documents are governmental documents):
        i. **Name of the permissions:** HO or Surat Izin Gangguan
        ii. **Name of the authority:** Dinas Perizinan of *each province*
b. Infrastructure constructions in rural areas firstly require a permission from the tribal head or village head – then secondly the steps under a) are followed.

In a group certification program, the policies and procedures for identifying and considering the interest of local communities is applicable on the group administrator level, not on the individual farm level. The group administrator has procedures to handle and solve the interests of local people in a fair and objective manner and keeps records of handling these cases.

7.5	**The farm must help with local environmental education efforts and must support and collaborate with local research in areas related to this standard.**

This criterion applies on both the estate and group administrator level. Group administrators and/or estates organize environmental education efforts for local people and farmers e.g. through community events and farmer field schools.

7.6	**The farm must have a legitimate right to land use and tenure, demonstrated by presenting the appropriate official documentation. If there is no such documentation the farm must show either:** **a. The absence of significant disputes on land use, tenure and access, or;** **b. The consent of local communities, regarding the land, natural and agricultural resources**.

Smallholder context:

Most smallholders do not have a land title since this is an expensive document.

a. For non-forest area: A land declaration issued by the village head (Surat Keterangan Tanah) or a buying certificate of the land bought (Surat Jual Beli Tanah) is an equally sufficient proof of legitimate right to land use.
b. For forest area. Under the Ministerial Decree of Forestry [Permenhut No.37/2009] on joint operation and land tenure, a permission to utilize wood forest products and forest plants would be proof of land tenure rights. To explain this in detail: The central government has the right to set aside a forest area [e.g. production forest and particularly degraded forest area] where wood forest product and forest plants can be managed and utilized. This set aside forest area is then managed by the local government [regent] that can provide temporary tenure permission to the group of community as Community Forest [Hutan Kemasyaratan] and Community Plantation [Hutan Tanaman Rakyat-HTR] for 5 years under the condition to plant and maintain 400 woody trees per hectare of permitted area. The regent could extend the status of land tenure to permanent tenure permission for 35 years. In this

case, where farmer manage farms in forest areas under the above condition, permanent land tenure permission granted by the regent can be used as legal permission – and proof of 7.6 compliance - to manage farm in forest area. ***However – any farm operating under such a permit is potentially in non-compliance with critical criterion 2.2. Therefore trainers, group administrators and auditors need to be cautious in situations a farm is operating under such a permit and need to do a detailed on farm assessment with regard to 2.2 compliance, since such a permit is not proof of compliance with critical criterion 2.2.***

c. In Indonesia, many farms are owned by city people and managed by villagers (operators) on a share cropping agreement. In case, the operator wants to join the certification program, the group administrator or operator has prior approval from the land owner to follow the certification program and the land owner equally provides documentation on the legitimate right to land use.

8. INTEGRATED CROP MANAGEMENT

8.4 *Critical Criterion.* The following chemical or biological substances cannot be used on certified farms: **a. Biological or organic substances that are not legally registered in the country for commercial use.** **b. Agrochemicals that are not registered officially in the country.** **c. Agrochemicals that are mentioned in the List of Banned and Severely Restricted Pesticides in the U.S. by its Environmental Protection Agency (EPA) or pesticides banned or severely restricted in the European Union.** **d. Substances that have been banned globally under the Stockholm Convention on Persistent Organic Pollutants (POPs).** **e. Substances listed in Annex III of the Rotterdam Convention on Prior Informed Consent (PIC), in relation to national bans or severe restrictions for documented health or environmental reasons in at least two regions of the World.** **f. All Pesticide Action Network Dirty Dozen substances.** ***List of Prohibited Pesticides – Sustainable Agriculture Network* is binding for the inserts 8.4.c, 8.4.d, 8.4.e and 8.4.f of this criterion.**
The SAN list of prohibited pesticides (http://sanstandards.org/userfiles/SAN-S-2-1%20SAN%20Prohibited%20Pesticide%20List%20November%202011.pdf) and the list of restricted and prohibited pesticides by the Indonesian Government are complementary to each other. No certified farm uses any of the prohibited pesticides in any of the two lists. Producers and group administrators make sure that they always relate to the latest version of the respective lists.

9. SOIL MANAGEMENT AND CONSERVATION

9.3 The farm must use and expand its use of vegetative ground cover to reduce erosion and improve soil fertility; structure and organic material content, as well as minimize the use of herbicides. There must be a vegetative ground cover establishment and expansion plan that indicates the areas with existing cover, as well as areas where cover will be established in the future. The farm must include a timeframe for these activities.
• If soil erosion has been identified as a risk, certified farms plant cover crops of preferably native species (e.g. steep slopes). • To improve soil fertility and soil structure, certified farms plant cover crops of preferably native species and/or use mulch.

10. INTEGRATED WASTE MANAGEMENT

10.2	**The use of open waste dumps and open-air burning of waste is not permitted. The burning of waste products is only allowed in an incinerator designed for that purpose, based on technical studies that determined the size, optimum location and control measures for minimizing the environmental and human health impacts related to its construction and operation. The farm must have the relevant legal permits for the construction and operation of this incinerator, as well as the appropriate operating procedures.**

- Waste is separated by its type (organic, inorganic, and hazardous).
- Organic waste is ***composted*** and thus becomes a source of organic fertilizer.
- Organic and inorganic waste is not kept in an open (plain level) waste dump but rather in waste ditches separated by their type of waste. This prevents waste being easily distributed across the farm and housing area and converting in potential health and safety hazards.
- Open air burning of any waste is not in compliance with this criterion and can only be permitted in case of a pest and disease outbreak.
- Producers are encouraged to elaborate collaboration with NGOs like IEC, WALHI, and government agency (KLH) to develop best practices on proper waste management (especially for plastic waste and hazardous waste). These organisations may also be able to provide further guidance on the appropriate construction and use of incinerators.
- Certified farms reduce waste first by limiting the intake of non-biodegradable waste into their system – such as plastic. Secondly, certified farms reuse materials (such as plastic bags), and thirdly they do recycle waste – e.g. by collecting PET bottles on the group/community level that can be sold to commercial recycling businesses.
- If certified groups consider the incineration of their non-biodegradable waste, the group administrator inquires first the Indonesian legal requirements to be fulfilled if constructing and operating an incinerator. Additionally, nearby hospitals are a potential point of contact to inquire on local designs.

Definition "Compost":

„Compost is organic matter that has been decomposed and recycled as a fertilizer and soil amendment. Compost is a key ingredient in organic farming. At the simplest level, the process of composting simply requires making a heap of wetted organic matter (leaves, "green" food waste) and waiting for the materials to break down into humus after a period of weeks or months. Modern, methodical composting is a multi-step, closely monitored process with measured inputs of water, air, and carbon- and nitrogen-rich materials. The decomposition process is aided by shredding the plant matter, adding water and ensuring proper aeration by regularly turning the mixture. Worms and fungi further break up the material. Aerobic bacteria manage the chemical process by converting the inputs into heat, carbon dioxide and ammonium. The ammonium is further converted by bacteria into plant-nourishing nitrites and nitrates through the process of nitrification." (From Wikipedia)

Note that distributing kitchen waste directly in the farm is not considered composting, but rather a health and sanitation hazard to be avoided by certified farms.

Annex 1: Distances between production areas and terrestrial ecosystems, aquatic ecosystems and areas of human activity

Separations in meters between areas of crop production terrestrial ecosystems, aquatic ecosystems and areas of human activity, based on crop-management intensity, are shown in the following table. The farm must comply with the distances indicated in the table or by applicable laws, whatever is stricter.

The separation from aquatic ecosystems is indicated according to the average percentage of slope of the surrounding terrain. For example, farms that apply agrochemicals less than once per month and do not use WHO category Ia, Ib or II products, must maintain a separation of five meters between streams and crop production areas on flat land.

For roads, the separation indicates the width of the buffer strip between the crop and the edge of the road in which the use of agrochemicals or the production of crops is prohibited. These areas must have vegetative barriers.

In some cases, different distances apply per distance category (columns), with respect to crops that use or do not use aerial or spray boom fumigation, or agroforestry crops.

This table applies to all crops specified in the Farm Certification Policy. In the case of mixed crops in the same production area, the greatest distance must apply.

The following definitions apply:

- High use of inputs: Minimum one of the following conditions is met by the farm: a.) WHO category Ia, Ib and II pesticides (see Annex 3) are applied; b.) The frequency of pesticide application is two or more times per month.
- Housing or similar areas: Houses, schools, dining areas, health clinics, recreation areas or similar infrastructure where human activity takes place on a daily basis.
- Infrequent use: Storage areas, packing sheds, warehouses, workshops, processing plants and other similar infrastructure where workers carry out activities for short periods of time (less than 30 minutes per day) no more than twice per week.
- Low use of inputs: All of the following conditions are met by the farm: a.) Only WHO category III and IV pesticides are used; b.) The frequency of pesticide application is maximum once per month; c.) Aerial fumigation or applications using spraybooms are not employed.
- Organic: Farms in which the audit team proves that chemical pesticides or fertilizers are not used; or farms that are certified organic by certification bodies accredited by the International Organic Accreditation Service (IOAS).
- Permanent use: Storage areas, packing sheds, warehouses, workshops, processing plants and other similar infrastructure where workers carry out activities on a daily basis.
- Public roads: Roads, streets or highways that connect or lead to population centers (towns, settlements, cities) and are used for transportation or by pedestrians on a daily basis.

Table of Separations

Note: As determined by criterion 1.1, the respective distances defined in the local legislation apply, if these are stricter than the distances defined in this table of separations.

		Type of crop management					
		High input use		Low input use		Organic	
Slope:		**≤ 8%[1]**	**> 8%[2]**	**≤ 8%**	**> 8%**	**≤ 8%**	**> 8%**
1. Terrestrial ecosystems (meters):							
a. Secondary growth (without significant human disturbance for minimum 10 years)		10	20	5	10	3	5
b. Primary and secondary forests, bush lands, grass lands and paramos	Crops with Aerial / Sprayboom Fumigation	10	30	10	20	5	10
	Crops without Aerial/ Sprayboom Fumigation or Agroforestry Crops		20		10		
2. Aquatic ecosystems (meters):							
a. Perennial and seasonal streams, brooks, creeks (width less than or equal to 3 m)		10	20	5	10	3	5
b. Rivers (width greater than 3 m), lakes, lagoons, swamps, marshes, bogs	Crops with Aerial / Sprayboom Fumigation	10	30	10	20	5	10
	Crops without Aerial/ Sprayboom Fumigation or Agroforestry crops		20		10		
c. Springs	Crops with Aerial / Sprayboom Fumigation	20	50	10	20	10	10
	Crops without Aerial/ Sprayboom Fumigation or Agroforestry crops	15	30				
3. Areas of human activity (meters):							
a. Public roads		10		5		5	
b. Buildings: Housing or similar use	Crops with Aerial / Sprayboom Fumigation	30		30		10	
	Crops without Aerial/ Sprayboom Fumigation	20		10		5	
	Agroforestry crops	10					
c. Buildings: Permanent use	Crops with Aerial / Sprayboom Fumigation	30		10		5	
	Crops without Aerial/ Sprayboom Fumigation	20					
	Agroforestry crops	10					
d. Buildings: Infrequent use	Crops with Aerial / Sprayboom Fumigation	10		5		0	
	Crops without Aerial/ Sprayboom Fumigation or Agroforestry crops	5		2			

[1] Slope of less than or equal to 8%
[2] Slope of greater than 8%

Annex 2: List of protected wildlife species in Indonesia

A: AVES

Nr.	Common name (Indonesian)	Family	Common name (English)	Species
1	Kasuari kerdil	Cassuaridae	Dwarf cassocary	Casuarius bennetti
2	Kasuari gelambir ganda	Cassuaridae	Double wattled cassowary	Casuarius casuarius
3	Kasuari gelambir tunggal	Cassuaridae	Single wattled cassorary	Casuarius unappendicularis
4	Undan kacamata	Peleeanidae	Australian pelican	Pelecanus conspicilatus
5	Undan putih	Peleeanidae	Easterm white pelican	Pelecanus onocrotalus
6	Undan paruh botol	Peleeanidae	Spet billed pelican	Pelecanus roseus
7	Gangsa batu abbetti	Sulidae	Abbott's booby	Sula abbotti
8	Gangsa batu muka biru	Sulidae	Blue faced booby	Sula dactylatra
9	Gangsa batu coklat	Sulidae	Browned booby	Sula leucogaster
10	Gangsa batu kaki merah	Sulidae	Red feeted booby	Sula sula
11	Pecuk ular	Anhingidae	Oriental darter	Anhinga melanogaster
12	Bintayung P. Christmas	Freaitidae	Christmas island frigate bird	Fregata andrewsi
13	Kuntul besar	Ardeidae	Greater egret	Egretta alba
14	Kuntul sedang	Ardeidae	Lesser egret	Egretta intermedia
15	Kuntul kecil	Ardeidae	Little egret	Egretta garzetta
16	Kuntul china	Ardeidae	Chinese egret	Egretta eulophotes
17	Kuntul karang	Ardeidae	Pasific reef-egret	Egretta sacra
18	Kuntul kerbau	Ardeidae	Cattle egret	Bubulcus ibis
19	Kowak maran	Ardeidae	Rufous night heron	Nycticorac caledonicus
20	Bangau hitam	Ciconiidae	Wolly necked strok	Ciconia episcopus
21	Bluwok putih	Ciconiidae	Milky strok	Ibis cinereus
22	Bangau tongtong	Ciconiidae	Lesser adjutan stork	Leptoptilos javanicus
23	Bluwok berwarna	Ciconiidae	Painted stork	Ibis leucocephalus
24	Ibis putih kepala hitam	Threskiornithedae	Black headed ibis	Threskiornis melanocephalus
25	Ibis bahu putih	Threskiornithedae	White shoulderet ibis	Pseudibis davisoni
26	Roko-roko	Threskiornithedae	Glassy ibis	Plegadis faleinellus
27	Alap-alap	Accipitridae	Shikra goshawk	Acciptiter badius

Nr.	Common name (Indonesian)	Family	Common name (English)	Species
28	Alap-alap berkalung	Accipitridae	Maluccan sparrowhawk	Accipiter trivirgatus
29	Alap-alap coklat	Accipitridae	Brown goshawk	Accipiter fasciatus
30	Alap-alap Sulawesi	Accipitridae	Celebes gostad goshawk	Accipiter grisniceps
31	Alap-alap kepala putih	Accipitridae	White handed sparrowhawk	Accipiter henicegrammus
32	Alap-alap punggung hitam	Accipitridae	Black mattled sparrowhawk	Accipiter melanochlamys
33	Alap-alap meyer	Accipitridae	Meyer's goshawk	Accipiter mayerrimus
34	Alap-alap kecil Sulawesi	Accipitridae	Celebes little sparrowhawk	Accipiter nanus
35	Alap-alap putih	Accipitridae	White goshawk	Accipiter novanellandiae
36	Alap-alap kepala kelabu	Accipitridae	Grey headed sparrowhawk	Accipiter poliocephalus
37	Alap-alap Sulawesi	Accipitridae	Vinous broasted sparrowhawk	Accipiter rhodegaster
38	Alap-alap China	Accipitridae	Chinese coshawk	Accipiter soloensis
39	Alap-alap jambul	Accipitridae	Grasted coshawk	Accipiter trivirgatus
40	Alap-alap ekor bintik	Accipitridae	Spottailed sparrowhawk	Accipiter trinotatus
41	Alap-alap burung	Accipitridae	Asiatic sparrowhawk	Accipiter virgatus
42	Alap-alap kadal jambul	Accipitridae	Crested lizard hawk	Avicerda jerdoni
43	Alap-alap kukuk	Accipitridae	Cuckeo falcon hawk	Avicerda subcristata
44	Elang kelabu	Accipitridae	Gray fased buzzard	Butastur indicus
45	Elang coklat	Accipitridae	Cinamon winge buzzard	Butastur liventer
46	Elang rawa	Accipitridae	March harrier	Circus aruginosus
47	Elang tutul	Accipitridae	Spotted harrier	Circus assimulis
48	Elang tikus	Accipitridae	Black winged kite	Elanus caeruleus
49	Elang China	Accipitridae	Pied harrier	Crious melannoleucus
50	Elang laut perut putih	Accipitridae	White bellied sea eagle	Haliaetus leucogaster
51	Elang bondol, wulung	Accipitridae	Brahminy kite	Haliastur indus
52	Elang siul	Accipitridae	Whistling kite	Haliastur spenurus
53	Elang Irian	Accipitridae	New Guinea haspy eagle	Harcyopsi novaegoineae
54	Elang	Accipitridae	Hawk eagle	Henicopernis lengicauda
55	Elang kecil	Accipitridae	Ruffous bellied eagle	Hieraeus kienerii

Nr.	Common name (Indonesian)	Family	Common name (English)	Species
56	Elang kecil Australi	Accipitridae	Little eagle	Hicoratus morphoides
57	Elang laut kelabu	Accipitridae	Grey headed fishing eagle	Ichthyopaga ichthiaetus
58	Elang laut kecil	Accipitridae	Lesser fishing eagle	Ichthyopaga nana
59	Elang jambul hitam	Accipitridae	Black eagle	Ictinaetus malayensis
60	Alap-alap kelelawar	Accipitridae	Bat hawk	Machaerhamphus aleinus
61	Alap-alap doria	Accipitridae	Daria's goshawk	Magatrierchis doriae
62	Alap-alap malam	Accipitridae	Black kite	Milrus migrans
63	Alap-alap belang	Accipitridae	Farred honey buzzard	Pernis celebensis
64	Alap-alap madu	Accipitridae	Asiatic honey buzzard	Pernis ptiloryhynchus
65	Elang ular	Accipitridae	Crested serpent eagle	Spilornis cheela
66	Bido Sulawesi	Accipitridae	Celebes serpent eagle	Spilornis rufipectus
67	Bido Andaman	Accipitridae	Andaman serpent eagle	Spelernis elgini
68	Elang Jawa	Accipitridae	Java hawk eagle	Spizeatus bartelsi
69	Elang hitam	Accipitridae	Changeable hawk eagle	Spizeatus cirrhatus
70	Elang gurne	Accipitridae	Hawk eagle	Spizeatus gurcayi
71	Elang hitam putih	Accipitridae	Black and White hawk eagle	Spizeatus alboniger
72	Elang Sulawesi	Accipitridae	Hawk eagle	Spizeatus nipalensis
73	Elang Sulawesi jambul	Accipitridae	Celebes shorterested hakw eagle	Spizeatus lanceolatus
74	Elang biliton/Elang Wallace	Accipitridae	Wallace's hawk eagle	Spizeatus nanus
75	Garuda Australia	Accipitridae	Wedge tailed eagle	Aqulia audax
76	Garuda Irian	Accipitridae	Gurney's eagle	Aqulia gurneyi
77	Elang ikan	Pandiondae	Osprey	Pandion baliaetus
78	Sikap elang	Falconidae	Peregine falcon	Falio peregrinus
79	Alap-alap macan	Falconidae	Oriental hobby	Falio sewerus
80	Alap-alap	Falconidae	Common kestrel	Falio tinnunculus
81	Alap-alap kecil	Falconidae	Little falcon	Falio longipennis
82	Alap-alap Irian	Falconidae	Nanken kestrel	Falio cenchroides
83	Alap-alap menara	Falconidae	Spotted kestrel	Falio nolvecensis

Nr.	Common name (Indonesian)	Family	Common name (English)	Species
84	Elang belalang	Falconidae	Black legged falconet	Microchierax fringillarius
85	Elang kecil borneo	Falconidae	Bornean falconed	Microchierax latiforas
86	Maleo	Magapodidae	Maleo	Maerocepahalon maleo
87	Burung gosong	Magapodidae	Incubator bird	Megapodius reinwardt
88	Burung gosong	Magapodidae	Waffled brush Incubstro bird	Aepypodius arfakisnus
89	Burung gosong	Magapodidae	Bryn's brush Incubator bird	Aepypodius bruijni
90	Burung gosong	Magapodidae	Mollucan srub hern	Eulipoa wallacei
91	Gosong	Magapodidae	Incubator bird	Megapodius affinis
92	Gosong	Magapodidae	Incubator bird	Megapodius nicobarensis
93	Gosong	Magapodidae	Incubator bird	Megapodius fenimberensis
94	Kamur	Magapodidae	Black belied bursh	Telagalla fuscirostris
95	Umgran	Magapodidae	Brown collared brush turkey	Telagalla jobienis
96	Kuao	Phasianidae	Great argus pheasant	Argusianus argus
97	Merak	Phasianidae	Green peafowl	Pavo mutiacus
98	Merak kerdil	Phasianidae	Malaysian peaccok pheasat	Polyplectron malacense
99	Beleang bulwor	Phasianidae	Bulwer's watted pheasant	Lophura bulweri
100	Jenjang	Gruidae	Sarus grane	Grus satigone
101	Mandar	Ballidae	Celebes rail	Aramidopsis plateni
102	Trulek Jawa	Charairiidae	Javanese wafiled lapwing	Venellus tricolor
103	Blekok asin	Scolopacidae	Asia dowitser	Limoodromus semipalmatus
104	Gegajahan besar	Scolopacidae	Buraskan curlew	Numenius arquata
105	Gegajahan sedang	Scolopacidae	Wimbrel	Numenius shcopus
106	Gegajahan paruh besar	Scolopacidae	C u r l e w	Numenius madagascariensis
107	Gegajahan kecil	Scolopacidae	Little curlew	Numenius minutus
108	Trinil Asia	Scolopacidae	Spotted grennshank	Trianga guttifer
109	Trulak lidi	Recurvirestridae	Blank winget stilt	Himantopus himantopus
110	Wili-wili	Burhinidae	Grent reef thick	Esacus magnirostris
111	Dara laut berjambul	Lariadae	Chinese crosted tern	Sterna ziumermani

Nr.	Common name (Indonesian)	Family	Common name (English)	Species
112	Camar coklat	Lariadae	Brown noody	Anous stolidus
113	Camar kerudi putih	Lariadae	White capped noody	Abous minutus
114	Camar hitam	Lariadae	Black noody	Anous tenuirostris
115	Dara laut kumis	Lariadae	Whishered tern	Chilodonias hubrida
116	Dara laut sayap hitam	Lariadae	Black tern	Chilodonias niger
117	Dara laut sayap putih	Lariadae	White winged tern	Chilodonias leucopterus
118	Dara laut paruh hitam	Lariadae	Gull billed tern	Gelochelidon nilotica
119	Dara putih mata cincin	Lariadae	White tern	Gygas alba
120	Dara laut kecil	Lariadae	Little tern	Sterna albifrons
121	Dara laut kendal	Lariadae	Bridled tern	Sterna anaethetus
122	Dara laut jambul kecil	Lariadae	Lesser crested tern	Sterna bengalensis
123	Dara laut jambul besar	Lariadae	Grenter crested tern	Sterna bergii
124	Dara laut dougalii	Lariadae	Rosente tern	Sterna dougallii
125	Dara laut hitam	Lariadae	Sooty tern	Sterna fuscata
126	Dara laut hirunda	Lariadae	Common tern	Sterna hirunda
127	Dara laut tengkuk hitam	Lariadae	Bale naped tern	Sterna sumatrana
128	Junai emas	Columbidae	Wicobar pigeon	Goura nicobarica
129	Mambruk skop makeri	Columbidae	Growded pigeon	Geura sekecamakeri
130	Mambruk biasa	Columbidae	Growded piegeon	Geura crisfata
131	Mambruk viktoria	Columbidae	Victoria crowded pigeon	Geura victoria
132	Kakatua putih besar Jambul Kuning	Psittacidae	Sulphur crested cockatoo	Cacatua galerita
133	Payap	Psittacidae	Eclectus parrot	Larius otatus
134	Serindit Sulawesi	Psittacidae	Grren hanging parrot	Loriculus exilis
135	Nuri merah kepala hitam	Psittacidae	Purple naped lory	Lorius domicellus
136	Nuri merah kepala hitam dada biru	Psittacidae	Black capped lory	Lorius lory
137	Kakatua raja	Psittacidae	Plam cockatoo	Probosciger attrimus
138	Kasturi raja	Psittacidae	Pecguat's parot	Psittrichas fulgidus
139	Nuri Sulawesi	Psittacidae	Muller's parrot	Tanyganthus sumatranus
140	Kasturi Sulawesi	Psittacidae	Ornate lory	Trichoglossus ornatus

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141	Celepuk Biak	Strigidae	Biak scope owl	Otus manadensis
142	Kasumba	Trogonidae	Diardi's trogon	Harpectes diardii
143	Kasumba punggung ungu	Trogonidae	Scarlet rumped trogon	Harpectes duayucelli
144	Kasumba kepala merah	Trogonidae	Red herded trogon	Harpectes erythrochophalus
145	Kasumba merah	Trogonidae	Red naped trogon	Harpectes kasumba
146	Kasumba dada oranye	Trogonidae	Orange brasted trogon	Harpectes oraskios
147	Kasumba tinanggang cinnamas	Trogonidae	Cinnamon remped trogon	Harpectes orrhophaenus
148	Kasumba ekor biru	Trogonidae	Blue tailed trogon	Harpectes reinwardtii
149	Kasumba Kalimantan	Trpgpmodae	White head's trogon	Harpectes white headi
150	Raja udang sungai	Alcedinade	River kingfisher	Alcedo atthis
151	Raja udang biru kecil	Alcedinidae	Small blue kingfisher	Alcedo coerulescens
152	Raja udang binti	Alcedinidae	Brond zoned kingfisher	Alcedo euryzone
153	Raja udang meninting	Alcedinidae	Malaysian Kingfisher	Alcedo meninting
154	Raja udang biru	Alcedinidae	Azura Kingfisher	Ceyx azurea
155	Raja udang kuku tiga	Alcedinidae	Indian forest Kingfisher	Ceyx ecithacus
156	Raja udang kerdil Sulawesi	Alcedinidae	Kingfisher celebes pygmy	Ceyx fallax
157	Raja udang elok	Alcedinidae	Dwarf Kingfisher	Ceyx jepidus
158	Raja udang kecil	Alcedinidae	Little Kingfisher	Ceyx pusillus
159	Raja udang hutan punggung merah	Alcedinidae	Malay forest Kingfisher	Ceyx rufidorsum
161	Raja udang paruh sendok	Alcedinidae	Dhovel billed Kingfisher	Clytoreyx rex
162	Raja udang besar paruh merah	Alcedinidae	Red bellied great Kingfisher	Dacelo gaudichaud
163	Raja udang Irian sayap biru	Alcedinidae	Blue winged kookabura	Dacelo leachii
164	Raja udang aru besar	Alcedinidae	Aru giant Kingfisher	Dacelo tyro
165	Raja udang Timor	Alcedinidae	King fisher	Halcyon australis
166	Raja udang kalung putih	Alcedinidae	White cilared Kingfisher	Halcyon chloris

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167	Raja udang kalung coklat	Alcedinidae	Chestnur callared Kingfisher	Halcyon conoreta
168	Raja udang merah	Alcedinidae	Red Kingfisher	Halcyon coromando
169	Raja udang biru Jawa	Alcedinidae	Javan Kingfisher	Halcyon cyanoventris
170	Raja udang	Alcedinidae	Kingfisher Kingfisher	Halcyon funebris
171	Raja udang	Alcedinidae	Kingfisher	Halcyon filgida
172	Raja udang hutan	Alcedinidae	Forest Kingfisher	Halcyon machleay
173	Raja udang gunung paruh kuning	Alcedinidae	Mountain yellow billed Kingfisher	Halcyon megarhyncha
174	Raja udang	Alcedinidae	Kingfisher moluccan	Halcyon monacha
175	Raja udang biru hitam	Alcedinidae	Blue black Kingfisher	Halcyon nigrocyanea
176	Raja udang kuduk hitam	Alcedinidae	Black capped Kingfisher	Halcyon pileata
177	Raja udang leher putih	Alcedinidae	White throated Kingfisher	Halcyon sinyrnensis
178	Raja udang	Alcedinidae	Kingfisher	Halcyon princeps
179	Raja udang	Alcedinidae	Scred Kingfisher	Halcyon saneta
180	Raja udang kepala putih	Alcedinidae	White headed Kingfisher	Halcyon saurophaga
181	Raja udang paruh kuning kecil	Alcedinidae	Lesser yellow billed Kingfisher	Halcyon torotoro
182	Raja udang	Alcedinidae	Kingfisher	Halcyon laruli
183	Raja udang pita	Alcedinidae	Banded Kingfisher	Alcedo pulchella
184	Raja udang paruh bengkok	Alcedinidae	Hook billed Kingfisher	Melidora macorrina
185	Raja udang paruh bango	Alcedinidae	Stock billed Kingfisher	Pelargopsis copensis
186	Raja udang perut hitam	Alcedinidae	Kingfisher black bellied	Pelargopsis sp
187	Raja udang numfor	Alcedinidae	Numfor paradise Kingfisher	Tanysiptera corolinae
188	Raja udang kafiau	Alcedinidae	Kofiau paradise Kingfisher	Tonysiptera ellioti
189	Raja udang ekor panjang	Alcedinidae	Common paradise Kingfisher	Tanysiptera galatea
190	Raja udang Aru	Alcedinidae	Aru paradise Kingfisher	Tanysiptera hydrochlaris
191	Raja udang kemerah-merahan	Alcedinidae	Pint breasted paradise Kingfisher	Tanysiptera nympha
192	Raja udang Biak	Alcedinidae	Biak paradise Kingfisher	Tanysiptera reidelii

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193	Raja udang ekor putih	Alcedinidae	White tailed paradise Kingfisher	Tanysiptera sylvia
194	Raja udang punggung coklat	Alcedinidae	Brown backed paradise Kingfisher	Tanysiptera danae
195	Raja udang	Alcedinidae	Kingfisher	Tanysiptera dane
196	Rangkok button	Bucerotidae	Hornbill	Aceros cassidix
197	Kangkareng	Bucerotidae	Hornbill	Aceros coronatus
198	Rangkok Sumba	Bucerotidae	Sumba Hornbill	Aceros everetti
199	Burung tahun	Bucerotidae	Wrinkled Hornbill	Aceros leucocephalus
200	Burung lipat	Bucerotidae	Blyth's Hornbill	Aceros plicatus
201	Enggang musim	Bucerotidae	Wieated Hornbill	Aceros undulatus
202	Enggang jambul putih	Bucerotidae	White crested Hornbill	Berenicornis comatus
203	Enggang hitam	Bucerotidae	Bushy crested Hornbill	Anorrhinus guleritus
204	Enggang hitam	Bucerotidae	Black Hornbill	Anthrococeros malayanus
205	Rangkok kecil	Bucerotidae	Pied Hornbill	Anthrococeros malabaricus
206	Rangkok badak	Bucerotidae	Rhinoceros Hornbill	Buceros rhinoceros
207	Rangkok papan	Bucerotidae	Great Hornbill	Buceros bicornis
208	Enggang gading	Bucerotidae	Helmeted Hornbill	Rhnoplax virgil
209	Rangkok Irian	Bucerotidae	Papuan	Rhyctceros plicatus
210	Rangkok Sulawesi	Bucerotidae	Celebes Hornbill	Penelopides ezarnatus
211	Maruku	Capitonidae	Brown throaled barbet	Megalaima corvina
212	Tulum tumpuk	Capitonidae	Java barbet	Megalaima javensis
213	Cangkarang	Capitonidae	Blue crowned barbet	Megalaima armillaris
214	Paok kepala biru	Pittidae	Blue headed pitta	Pitta baudi
215	Paok sayap biru	Pittidae	Blue winged pitta	Pitta brachyura
216	Paok besar biru	Pittidae	Giant pitta	Pitta caerulea
217	Paok dada merah	Pittidae	Red breasted pitta	Pitta crythrogaster
218	Paok garnet	Pittidae	Garnet pitta	Pitta garnatina
219	Paok ekor biru	Pittidae	Bandet pitta	Pitta guajana
220	Paok halmahera	Pittidae	Greatur pitta	Pitta maxima
221	Paok Maluku	Pittidae	Moluccan blue	Pitta mollucensis

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222	Paok Schneideri	Pittidae	Schneide's pitta	Pitta achneideri
223	Paok topi	Pittidae	Hoode pitta	Pitta sordida
224	Paok biru	Pittidae	Blue banded pitta	Pitta aravata
225	Paok	Pittidae	Hoisy pitta	Pitta versicolor
226	Burung kipas biru	Muscicapidae	Rueek's blue flycather	Muscivapa rueeki
227	Burung kipas	Muscicapidae	Malaysian fantail flycather	Rhipidura javanica
228	Burung kipas ekor merah	Muscicapidae	Red tailed fantail	Rhipidura phoenicura
229	Burung kipas gunung	Muscicapidae	White bellied fantail	Rhipidura euryura
230	Glatik kecil	Aegithalidae	Pygmy tit	Psaltrai exilis
231	Burung madu sangir	Nectariniidae	Duyrebode's sunbird	Aethopyga doyvenhodei
232	Burung madu	Nectariniidae	Khul's sunbird	Aethopyga eximia
233	Burung madu merah	Nectariniidae	Scarlet sunbird	Aethopyga mystacalis
234	Burung madu merah jingga	Nectariniidae	Crismon sunbird	Aethopyga siparaja
235	Burung madu	Nectariniidae	Brown throaled	Anthreptes malarensis
236	Burung madu/jantingan	Nectariniidae	Red throated sunbird	Anthreptes rhodolaema
237	Burung madu pipi merah	Nectariniidae	Ruby cheeked sunbird	Anthreptes singalensis
238	Burung jantung kelabu	Nectariniidae	Grey breasted spiderhunter	Araehnothera affinis
239	Burung jantung kecil	Nectariniidae	Lesser yellow eared spiderhunter	Araehnothera chryssogenya
240	Burung madu paruh tebal	Nectariniidae	Thiek billed	Araehnothera crassirostris
241	Burung jantung besar	Nectariniidae	Greather yellow spiderhunter	Araehnothera flavigaster
242	Burung jantung besar	Nectariniidae	Long billed spiderhunter	Araehnothera robusta
243	Burung madu	Nectariniidae	Little spiderhunter	Araehnothera longirostris
244	Burung Madu kuduk ungu	Nectariniidae	Purple naped sunbird	Nectarinia hypogrammicum
245	Burung Madu tenggorokan ungu	Nectariniidae	Purple throated sunbird	Nectarinia sperata
246	Burung Madu tenggorokan pirang	Nectariniidae	Copper throated sunbird	Nectarinia chalcostetha

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247	Burung Madu kuning	Nectariniidae	Yellow breated sunbird	Nectarinia jugularis
248	Burung Madu hitam	Nectariniidae	Black sunbird	Nectarinia sericea
249	Burung kacamata leher abu-abu	Zosterropidae	Javan grey throated white eye	Lophozosterops javanica
250	Burung Madu dada coklat	Meliphagidae	Rufous breasted honeyeater	Conophila albogularis
251	Burung Madu mata biru	Meliphagidae	Blue faced honeyeater	Entomyzen eater
252	Burung Madu mata putih	Meliphagidae	White eye honeyeater	Glycichaera fallax
253	Burung Madu kuping putih	Meliphagidae	White eared honeyeater	Lichmera albenuricularis
254	Burung Madu	Meliphagidae	Honey eater	Lichmera flavieans
255	Burung Madu hijau	Meliphagidae	Plain olie honeyeater	Lichmera argentarurus
256	Burung Madu	Meliphagidae	Money eater	Lichmera deningeri
257	Burung Sedap Madu coklat	Meliphagidae	Brown honeyeater	Lichmera indistineta
258	Burung Madu Lombok	Meliphagidae	Lombok honeyeater	Lichmera lombokia
259	Burung Madu	Meliphagidae	Honey eater	Lichmera monticola
260	Burung Madu	Meliphagidae	Honey eater	Lichmera notabilis
261	Burung Madu	Meliphagidae	Honey eater	Lichmera squamata
262	Burung Madu Belford	Meliphagidae	Belford's honeyeater	Melideetes beredi
263	Burung Madu	Meliphagidae	Soety honeyeater	Melideetes ruscus
264	Burung Madu muka putih	Meliphagidae	White fronted honeyeater	Melideetes leueestephes
265	Burung Madu gunung	Meliphagidae	Mid mountain honeyeater	Melideetes achromelas
266	Burung Madu kumis	Meliphagidae	Long bearded honeyeater	Melideetes princeps
267	Burung Madu kumis	Meliphagidae	Short bearned honeyeater	Melideetes neuhuysi
268	Burung Madu dada coklat	Meliphagidae	Linnamen bearted honeyeater	Melideetes terguatus
269	Burung Madu	Meliphagidae	Long billed honeyeater	Melideetes megarhyuchus
270	Burung Madu becak putih	Meliphagidae	White marked honeyeater	Melideetes albonetata
271	Burung Madu	Meliphagidae	Memic honeyeater	Melideetes analoga
272	Burung Madu	Meliphagidae	Puff bathed honeyeater	Melideetes arvensis

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273	Burung Madu kuning	Meliphagidae	Yellow gadep honeyeater	Meliphaga flavirictus
274	Burung Madu paruh langsing	Meliphagidae	Sleder billed honeyeater	Meliphaga graccilis
275	Burung Madu besar	Meliphagidae	Large spot breastedeater	Meliphaga mimikae
276	Burung Madu telinga putih	Meliphagidae	White eared honeyeater	Meliphaga montang
277	Burung Madu dada tutul	Meliphagidae	Small spot breasted honeyeater	Meliphaga eroentalis
278	Burung Madu	Meliphagidae	Singing honeyeater	Meliphaga virescens
279	Burung Hantu	Meliphagidae	Common melipetes	Meliphaga fumigarus
280	Burung Madu arfak	Meliphagidae	Arfak melipetes	Meliphaga gymnops
281	Burung Madu Sulawesi	Meliphagidae	Celebes honeyeater	Myza celebensis
282	Burung Madu	Meliphagidae	Honeyeater	Myza sarasincrum
283	Burung Madu gunung merah	Meliphagidae	Mountain red headed Honeyeater	Myzomela adolphinae
284	Burung Madu	Meliphagidae	Honeyeater	Myzomela blassii
285	Burung Madu merah	Meliphagidae	Red Honeyeater	Myzomela cruentata
286	Burung Madu rawa	Meliphagidae	Magrove red headed	Myzomela orythrocephala
287	Burung Madu	Meliphagidae	Red spot honeyeater	Myzomela aques
288	Burung Madu	Meliphagidae	Honeyeater	Myzomela kuchri
289	Burung Madu hitam	Meliphagidae	Black Honeyeater	Myzomela nigrita
290	Burung Madu	Meliphagidae	Dusky Honeyeater	Myzomela obscura
291	Burung Madu hitam merah	Meliphagidae	Black and red Honeyeater	Myzomela rosenbergii
292	Burung Madu	Meliphagidae	Honeyeater	Myzomela sanguinolenta
293	Burung Madu	Meliphagidae	Honeyeater	Myzomela ulnerata
294	Burung Madu pigmi	Meliphagidae	Pigmy Honeyeater	Ocdistoma pygmae
295	Burung Madu	Meliphagidae	Honeyeater	Ocdistoma iliclophum
296	Burung Madu pipi merah	Meliphagidae	Orange cheked Honey	Orcornis chrysogenys
297	Burung Madu	Meliphagidae	Obscure Honeyeater	Orcornis abscurus
298	Burung Madu kerongkongan hitam	Meliphagidae	Brass's friar bird	Philemon brassi

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299	Burung Madu besar	Meliphagidae	Brass's friar bird	Philemon brassi
300	Burung Madu besar cikus-kua	Meliphagidae	Yellow throted friar bird	Philemon buceroides
301	Burung Madu besar kuning	Meliphagidae	Friar bird	Philemon citrogularis
302	Burung Madu besar	Meliphagidae	Friar bird	Philemon fuscipilus
303	Burung Madu besar	Meliphagidae	Friar bird	Philemon gilolensis
304	Burung Madu besar	Meliphagidae	Friar bird	Philemon inornatus
305	Burung Madu besar	Meliphagidae	Friar bird	Philemon reyeri
306	Burung Madu besar Maluku	Meliphagidae	Meluccan Friar bird	Philemon nellucensis
307	Burung madu besar Irian	Meliphagidae	New Guinea friar bird	Philemon novaeguineae
308	Burung madu besar Seram	Meliphagidae	Friar bird	Philemon subcorniculatus
309	Burung madu	Meliphagidae	Honeyeater	Ptiloprora erythropleura
310	Burung madu punggung merah	Meliphagidae	Red backed Honeyeater	Ptiloprora guisei
311	Burung madu bergaris	Meliphagidae	Meek's stresked Honeyeater	Ptiloprora meekianana
312	Burung madu	Meliphagidae	Honeyeater	Ptiloprora perstriata
313	Burung madu	Meliphagidae	Leaders Honeyeater	Ptiloprora plumbea
314	Burung madu kelabu	Meliphagidae	Grey Honeyeater	Pygnopygius cinerus
315	Burung madu coklat	Meliphagidae	Brown Honeyeater	Pygnopygius ixoides
316	Burung madu paruh	Meliphagidae	Yellow billed Honey	Toxorhampus novaeguineae
317	Burung madu pipi kelabu	Meliphagidae	Slaty chinned long	Toxorhampus poliopterus
318	Burung madu kerudung setrip	Meliphagidae	Streak capped honey	Pygpygius stictocephalus
319	Burung madu perut	Meliphagidae	Grey billed long bill	Toxorhampus iliolophus
320	Burung madu gunung	Meliphagidae	Mointan straight billed honeyeater	Timeliopsis fellvigula
321	Burung madu paruh lurus	Meliphagidae	Lowlond straight billed honeyeater	Timeliopsis griseigula
322	Burung madu sederhana	Meliphagidae	Modest honeyeater	Ramsayornis modestus
323	Beo Nias	Sturnidae	Nias talking myna	Gracula relligiosa

Nr.	Common name (Indonesian)	Family	Common name (English)	Species
324	Jalak putih Bali	Sturnidae	Rotschild's starling	Leucopsar rothschildi
325	Jalak putih	Sturnidae	Black winged starling	Sturnus melanopterus
326	Burung kucing telinga putih	Ptilonorhynchidae	White tared cat bird	Ailuroedus bueciodes
327	Burung kucing telinga hitam	Ptilonorhynchidae	Black tared cat bird	Ailuroedus melanetis
328	Burung serambi	Ptilonorhynchidae	Gardenar tared bower bird	Amblyornis inornatus
329	Burung namdur jumbai	Ptilonorhynchidae	Yellow fronted golden bower bird	Amblyornis flavifrons
330	Burung namdur jambul	Ptilonorhynchidae	Crested garderner	Amblyornis maegregoriae
331	Burung namdur hitam	Ptilonorhynchidae	Archcold's bower bird	Archboldia papuensis
332	Burung namdur coklat	Ptilonorhynchidae	Brown broasted bower bird	Clamydera creviniventris
333	Burung namdur kuning muda	Ptilonorhynchidae	Lauterbach's bower bird	Clamydera lauterabachi
334	Burung namdur emas	Ptilonorhynchidae	Galden bower bird	Sericulus aureus
335	Burung denata ekor panjang	Paradisaedae	Arfak astrapia bird of paradise	Astrapia nigra
336	Burung denata	Paradisaedae	Splendid astrapia bird of paradise	Astrapia splendidissima
337	Burung raja	Paradisaedae	King bird of paradise	Cicinnurus regius
338	Burung denata raja kecil	Paradisaedae	Magnificent bird of paradise	Diphyllodes magnificus
339	Burung denata waigee	Paradisaedae	Waigee bird of paradise	Diphyllodes republica
340	Burung denata paruh panjang	Paradisaedae	Black billed sickle billed bird of paradise	Dreparnernis albertsil
341	Burung denata paruh sabit putih	Paradisaedae	White billed sickle billed bird of paradise	Dreparnernis bruijnii
342	Burung denata paruh sabit coklat	Paradisaedae	Brown billed sickle billed bird of paradise	Epimachus mayeri
343	Burung denata paruh sabit hitam	Paradisaedae	Black sickle billed bird of paradise	Epimachus fatosus
344	Burung denata berpital	Paradisaedae	Wattle billed bird of paradise	Laboparadisae sericea
345	Burung denata superba	Paradisaedae	Superba bird of paradise	Lophorina superba

Nr.	Common name (Indonesian)	Family	Common name (English)	Species
346	Burung denata loria	Paradisaedae	Loria's bird of paradise	Loria loriae
347	Burung gagak surga	Paradisaedae	Paradise crown	Lycecorax pyrrhopterus
348	Burung denata topeng	Paradisaedae	Maegregor's bird of paradise	Maegregoria pulchra
349	Burung denata jobi	Paradisaedae	Jobi manucode	Manucodia ater
350	Burung denata hijau	Paradisaedae	Crinkled collared manucode	Manucodia carunculata
351	Burung denata	Paradisaedae	Glossy wantled manucode	Manucodia ater
352	Cendrawasih berpial	Paradisaedae	Long tailed paradigalla	Paradigalla carunculata
353	Cendrawasih berpial ekor pendek	Paradisaedae	Short tailed paradigalla	Paradigalla brevicauda
354	Cendrawasih kuning besar	Paradisaedae	Greater bird of paradise	Paradisea apoda
355	Cendrawasih kuning kecil	Paradisaedae	Lesser bird of paradise	Paradisea minor
356	Cendrawasih merah	Paradisaedae	Red bird of paradise	Paradisea rubra
357	Cendrawasih jingga	Paradisaedae	Count rangi's bird six of paradise	Paradisea reggiana
358	Burung dewata bulu enam putih	Paradisaedae	Queen carol's siswarent of paradise	Parotia corolea
359	Burung dewata bulu enam	Paradisaedae	Arfak six wired bird of paradise	Parotia sefilate
360	Burung dewata bulu pembawa pinji	Paradisaedae	Enammeled bird of paradise	Steridophora alberti
361	Burung dewata bulu trompet	Paradisaedae	Trumpet bird	Phonygammus keraudrenii
362	Cendrawasih memenjat	Paradisaedae	Magnificent rifle bird	Ptiloris magnificus
363	Burung dewata duabelas kawat	Paradisaedae	Twelve wired bird of paradise	Seleucides lamanophleuca
364	Burung plat	Paradisaedae	Wallace's standar wing	Semioptera wallasei
365	Burung dewata ekor panjang	Paradisaedae	False lobel long tail	Pseudastrapia lobata
366	Burung dewata elliot	Paradisaedae	Elliot's bird of paradise	Astrapimachus elliotti
367	Burung wergan	Timaliidae	Java nun babler	Alcippe pyrrhoptera
368	Burung matahari	Timaliidae	Spotted sibing	Crocias albonotatus

Nr.	Common name (Indonesian)	Family	Common name (English)	Species
369	Burung kuda	Timaliidae	Red brested tree thrush	Garrulax rufifrons
370	Burung tepus dada putih	Timaliidae	White brested tree babler	Stachyris grammiceps
371	Burung tepus pipi perak	Timaliidae	Pearl cheek tree bablier	Stachyris melanothorax
372	Itik Liar		White-Winged (wood) Duck	Cairina scutulata
373	Burung Kipas Biru	Muscicapidae	Rueck's Blua Flycatcher	Nilvia ruecki
374	Bangau Putih Susu, Bluwok	Ciconiidae	Mylky Stork	Mycteria cinerea
375	Trulek Jawa, Trulek Ekor Putih	Charairriidae	Javan Wattled Plowe	Vanellus macropterus
376	Pergam Raja	Columbidae	Imperial Pigeon	Ducula whartoni
377	Burung Hantu Biak	Strigidae	Biak Cops Owl	Otus beccari
378	Bluwok Berwarna	Ciconiidae	Painted Stork	Mycteria (=ibis) leucochepala
379	Burung Kaca Mata Leher Abu-abu	Zosterropidae	Grey-Throated White Eye	Lophozosterops javanica

B. MAMALIA

Nr.	Common name (Indonesian)	Family	Common name (English)	Species
1	Landak Irian, Nokdiak	Tachyglossidae	Spiny anteater	Zaglossus bruijni
2	Kanguru tanah	Macropodidae	Wallaby	Dorcopsia muelleri
3	Kanguru pohon	Macropodidae	Ornite Tree Kangaroo	Dendrolagus geodfellowi
4	Kanguru pohon	Macropodidae	Unicolored Tree Kangaroo	Dendrolagus doridianus
5	Kanguru pohon	Macropodidae	Dustry Tree Kangaroo	Dendrolagus ursinus
6	Kanguru pohon	Macropodidae	Grissled Tree Kangaroo	Dendrolagus inustus
7	Kanguru tanah	Macropodidae	--	Thylogale stigmatica
8	Kanguru tanah	Macropodidae	--	Thylogale bruijni
9	Kubung, Tando	Cynoephalidae	Flying lemur	Cynocephalus variegatus
10	Malu-malu	Lorisidae	Slow loris	Nicficebus coucang
11	Binatang hantu, Singapura	Tarsiidae	Tarsier	Tarsius bancanus
12	Orang Hutan, Mawas	Pongidae	Orang utan	Pongo pygmaeus

13	Jenis-jenis Owa tak berbuntut	Hylobatidae	Kloss Gibbon	Hylobates klosii
14	U n g k o	Hylobatidae	Darks handed Gibbon	Hylobates agilis
15	O w a	Hylobatidae	Silvery Gibbon	Hylobates moloch
16	Klampiau	Hylobatidae	Grey Gibbon	Hylobates muelleri
17	Sarudung	Hylobatidae	WHite handed Gibbon	Hylobates lar
18	Kahau	Cercopithecidae	Proboscis monkey	Nasalis larvatus
19	Monyet dije	Cercopithecidae	Crested Celebes macaue	Macaca nigra
20	Monyet buntung	Cercopithecidae	Buton macaue	Macaca brunnescens
21	Monyet dare	Cercopithecidae	Moor macague	Macaca maura
22	Monyet digo	Cercopithecidae	Tongkean macague	Macaca tongkeana
23	Bakkoi, Beruk Mentawai	Cercopithecidae	Mentawai pigtailed macague	Macaca pegensis
24	Jaya, Lutung Mentawai	Cercopithecidae	Mentawai langur	Presbytis potenziani
25	Lutung merah	Cercopithecidae	Maroon leaf monkey	Presbytis rubicunda
26	Rungka, Kedih	Cercopithecidae	Banded leaf monkey or Thomas	Presbytis thomasi
27	Lutung surili	Cercopithecidae	Javan leaf monkey	Presbytis aygula
28	Lutung dahi putih	--	White fronted leaf	--
29	Jiringan	Cercopithecidae	Monkey	Presbytis frontata
30	Simakobu	Cercopithecidae	Pigtailed langur, Snubnosed Monkey	Simias concolor
31	Trenggiling	Manidae	Scaly anteater, Pangolin	Manis javanica
32	Bajing tanah, Tupai tanah	Sciuridae	Treestriped ground aquirrel	Laricus insignis
33	Jelarang	Sciuridae	Black giant squirel	Ratufa bicolor
34	Cukbo, bajing terbang	Sciuridae	Spotted Flying Squirrel	Petaurista elegans
35	Bajing terbang ekor merah	Sciuridae	Red tailed flying	Lomye horsfiledii
36	Kelinci liar Sumatera	Leporidae	Sumatran Shorteared Rabbit	Nesolagus netscheri
37	Bajing tanah bergaris empat	Sciuridae	Fourstriped ground Squirrel	Laricus hosei
38	Kuskus	Phalangeridae	Phalanger	Phalanger maculatus
39	Kuskus	Phalangeridae	Common phalanger	Phalanger orientalis

40	Kuskus	Phalangeridae	Bear phalanger	Phalanger ursinus
41	Kuskus	Phalangeridae	Celebes phalanger	Phalanger celebensis
42	Kuskus	Phalangeridae	Black spotted	Phalanger atrimuculatus
43	Kuskus	Phalangeridae	Gray phalanger	Phalanger symotis
44	Landak	Hystricidae	Porcupine	Hystrix brachyura
45	Sigung, Toledu	Mustelidae	Stink Badger	Mydaus javanica
46	Pulusan	Mustelidae	Hognoser Badger	Aretonyx collaris
47	Beruang madu	Ursidae	Malayan Sun Bear	Helaratos malayanus
48	Musang air	Viverridae	Otter civet	Cynolagal bennetti
49	Musang congkok	Viverridae	Bonded linsang	Prionodon linsang
50	Musang Sulawesi	Viverridae	Celebes Plant Civet	Macregaligia mussehenbrocki
51	Bintarung	Viverridae	Binturong	Arctitis binturong
52	Harimau Jawa	Felidae	Javan tiger	Panthera tigris sondaica
53	Harimau Sumatera	Felidae	Sumatran tiger	Panthera tigris sumatrae
54	Macan Kumbang, Macan Tutul	Felidae	Leopard panther	Panthera pardus
55	Harimau dahan	Felidae	Clouded leopard	Neofelis nebulosa
56	Kucing hutan, Meong congkok	Felidae	Leopard cat	Felis benglensis
57	L u w a k	Felidae	Marble cat	Felis marmorata
58	Kucing merah	Felidae	Borncan by cat	Felis badia
59	Kucing emas	Felidae	Golden cat	Felis temminckii
60	Kucing dampak	Felidae	Flat headed cat	Felis planniceps
61	Kucing bakau	Felidae	Fishing cat	Felis viverrina
62	A j a k	Canidae	Asiatic wild dog	Cuon alpinus
63	G a j a h	Elephantidae	Asian elephant	Elephas maximus
64	Tapir, Cipan, Tanuk	Tapiridae	Malay tapir	Tapirus indicus
65	Badak Sumatera	Rhinocerotidae	Sumatran Rhino	Dicerorhinus sumatrensis
66	Babi rusa	Suidae	Babyrusa	Babyrousa babyrusa
67	Badak Jawa	Rhinocerotidae	Javan Rhino	Rhinoceros sondaicus
68	R u s a	Cervidae	Rusa/Timor deer	Cervus timorensis
69	S a m b a r	Cervidae	Sambar/swamp deer	Cervus unicolor

70	Rusa Bawean	Cervidae	Bawean deer, Kuhl's deer	Gyelaphis kuhlii (Cervus kuhlii)
71	Kijang	Cervidae	Barking deer	Muntiacus muntjak
72	Kancil, Napu, Pelanduk	Tragulidae	Smaller mouse deer large mouse deer	Tragulus javanicus, Tragulus napu
73	Banteng	Bovidae	Banteng	Bos javanicus
74	Anoa dataran rendah	Bovidae	Law land anoa	Bubalus depressicornis
75	Anoa pegunungan	Bovidae	High land anoa	Bubalus quarlesi
76	Kambing Sumatera	Bovidae	S e r r o w	Capricornis sumatrensis
77	Lumba-lumba timah	Stonidae	Plumboeus dolphin	Sotalia plombea
78	Lumba-lumba borneo	Stonidae	Indonesian white dolphin	Sotalia borneensis
79	Lumba-lumba Cina	Stonidae	Chinese white dolphin	Sotalia chinensis
80	Lumba-lumba gigi besar	Stonidae	Rough toothed dolpin	Steno bredanensis
81	Lumba-lumba Malaya	Stonidae	Malayas dolpin	Delphinus delphis, stenella malayan
82	Lumba-lumba delpis	Delphinidae	Common dolpin	Delphinus delphis
83	Lumba-lumba perut merah	Delphinidae	Red fellied dolpin	Delphinus roseirostris
84	Lumba-lumba trawadi	Delphinidae	Irrawady dolpin	Orcaella brevirostris
85	Lumba-lumba botol	Delphinidae	Bottle nose dolpin	Trusiops sp.
86	P e s u t	Delphinidae	Mahakam dolpin	Orcaella sp.
87	Lumba-lumba gromphus	Delphinidae	Bottle nosed gramphus	Gramphus griseus
88	Lumba-lumba pemangsa kecil	Delphinidae	Little killer dolphin	Peponocephala electra
89	Paus paruh angsa	Ziiphiidae	Guvier's whale	Ziphius cavirostris
90	Lumba-lumba tak bersirip punggung	Phocoenidae	Black finiess porpoise	Neophocaena phocancides
91	Paus biru	Balaenopteridae	Blue whale	Balaenoptera musculus
92	Paus bersirip	Balaenopteridae	Fin whale, Razorback	Balaenoptera physalus
93	Paus bongkok	Balaenopteridae	Humpback whale	Megaptera novaeangliae
94	D u y u n g	Dugongidae	Dugong	Dugong dugon
95	P a u s	Balaenopteridae	Whale's (all species)	Cetacea

C. REPTILIA

Nr.	Common name (Indonesian)	Family	Common name (English)	Species
1	Tuntong	Emydidae	River terropin	Batagur baska
2	Kura-kura	Emydidae	Aquatio tortose	Orlitia borneensis
3	Kura-kura Irian	Corottochelidae	Irian tortoiso	Caretochrelys insulpta
4	Kura-kura Irian leher pendek	--	New Gunea snapper	Elseva novaegunea
5	Kura-kura Irian leher panjang	Chelyidae	Long neeked tortoise	Chelodina novaeguinea
6	Penyu belimbing penyu raksasa	Dermochelydae	Leather baok turtle	Dermochelys coriacca
7	Penyu ridel	--	Grey olive longgerhead	Lepidochelyn olivaceae
8	Penyu tempayan	--	Red brown longgerhead	Caretta caretta
9	Labi-labi besar	Trioychdae	Giant fresh water turtle	Chitra indica
10	Buaya siam	Crocodylidae	Siamese crocodile	Crocodilus siamensis
11	Buaya air tawar Irian	Crocodylidae	Irian fresh water crocodile	Crocodilus navaeguineae
12	Buaya muara	Crocodylidae	Marsh crocodile	Crocodilus porosus
13	Buaya capit senyulong	Crocodylidae	Malayan gavial false gavial	Tomistoma schlegeli
14	Bunglon sisir, Bunglon Raksasa	Agamidae	Giant chamateaon	Gonyocephalus dilophus
15	Soa-soa	Agamidae	Sail rizard	Hydrosaurus ambonensis
16	Biawak komodo	Varanidae	Komodo dragon	Varanus komodoensis
17	Biawak Maluku	Varanidae	Indian water monitor	Varanus indicus
18	Biawak Togian	Varanidae	Togian monitor	Varanus togianus
19	Biawak coklat	Varanidae	Brown monitor	Varanus gouldi
20	Biawak abu-abu	Varanidae	Grey monitor	Varanus nebulosus
21	Biawak hijau	Varanidae	Green monitor lizard	Varanus arasimus
22	Biawak Timor	Varanidae	Timor lizard	Varanus timorensis
23	Biawak Kalimantan	Varanidae	Cantarus lizard	Varanus borneanus
24	Soa payung	Agamidae	Collar skin flapped lizard	Chlamydosaurus kingi
25	Ular kaki empat, Biawak Panama	Scincidae	Giant skink	Tiligua gigas

26	Sanca bodo	Boidae	Rock python	Python molurus
27	Sanca hijau	Boidae	Green python	Chondrophyton viridis
28	Sanca Timor	Boidae	Timor python	Phyton timorensis
29	Penyu sisik		Hawksbill Turtle	Eretmochelys imbricata
30	Penyu pipih		Flatback turtle	Natator depressa

D. PISCES

Nr.	Common name (Indonesian)	Common name (English)	Species
1	Peyang alaya	Bonitangus	Seclerophages formosus
2	Peyang Irian	Dawson river salman	Seclerophages jardini
3	Pari sentani	Dawson river salman	Pritis sp.
4	Selusur maninjau	Maninjau loach	Meganoptera gymnogaster
5	Wader goa	Maninjau loach	Puntius microps
6	Balida Jawa	Maninjau loach	Netopterus sp.

E. INSECT

No.	Nama Daerah	Familia	Nama dalam Bahasa Inggris	Species
1	Kupu sayap burung goliat	Papilonidae	Birdwing butterfly	Ornithoptera goliath
2	Kupu sayap burung surga	Papilonidae	Birdwing butterfly	Ornithoptera paradisa
3	Kupu sayap burung peri	Papilonidae	Birdwing butterfly	Ornithoptera chimaera
4	Kupu raja miranda	Papilonidae	Birdwing butterfly	Troides miranda
5	Kupu raja hipolitus	Papilonidae	Birdwing butterfly	Troides hypolitus
6	Kupu raja halifrom	Papilonidae	Birdwing butterfly	Troides haliphron
7	Kupu raja radaman	Papilonidae	Birdwing butterfly	Troides rhadamantus
8	Kupu raja odromas	Papilonidae	Birdwing butterfly	Troides andromache
9	Kupu raja amprisus	Papilonidae	Birdwing butterfly	Troides ampharysus
10	Kupu raja plato	Papilonidae	Birdwing butterfly	Troides plato
11	Kupu raja ridel	Papilonidae	Birdwing butterfly	Troides riedeii
12	Kupu raja helena	Papilonidae	Birdwing butterfly	Troides helena
13	Kupu raja vandepel	Papilonidae	Birdwing butterfly	Troides vandepolli
14	Kupu raja neoris	Papilonidae	Birdwing butterfly	Troides neoris
15	Kupu raja kriton	Papilonidae	Birdwing butterfly	Troides criton

No.	Nama Daerah	Familia	Nama dalam Bahasa Inggris	Species
16	Kupu tragon	Papilonidae	Trogon butterfly	Trogonoptera brookiana
17	Kupu bidadari	Papilonidae	Nympa butterfly	Cethonsa myrina
18	Kupu burung rotsil	Papilonidae	Birdwing butterfly	Ornithoptera rotshcildi
19	Kupu burung fiton	Papilonidae	Birdwing butterfly	Ornithoptera tithonus
20	Kupu burung priamus	Papilonidae	Birdwing butterfly	Ornithoptera priamus

F. MOLUSCA

Nr.	Common name (Indonesian)	Common name (English)	Species
1	Akar Bahar, Koral Hitam	Black Coral	Anthiphates sp
2	Kima Raksasa	Giant Clam	Tridacna gigas
3	Kima Selatan	Shoutern Giant Clam	Tradacna derasa
4	Kima Cina	Cina Clam	Hippopus gorcellanus
5	Kima Kunia, Lubang	Saffron coloured/Boring Claim	Tridacna crocea
6	Kima Sisik (Kima Seruling)	Scaly Claim	Tridacna squamosa
7	Kima Besar	Small Giant Clam	Tridacna maxima
8	Kima Telapak Kuda	Horse Hoof	Hippopus hippopus
9	Triton Terompet	Triton Thrumpet	Cheronia tritonis
10	Kepala Kambing	Giant Helmet Sheel	Cassis cornuta
11	Troka, Susu Bundar	Mother of Pearl/Top Shell	Trochus niloticus
12	Batu laga, Sypuy Hijau	Green Snail	Turbo marmoratus
13	Nautilius Berongga	Pearly/Chambered nautilus	Nautilus pompillius

G. CRUSTACEA

Nr.	Common name (Indonesian)	Common name (English)	Species
1	Ketam Kelapa	Coconut Crab/Robber	Birgus latro
2	Ketam Telapak Kuda	Horse Shoe Crab	Tachypleus gigas
3	Mimi	King Crab	Tachypleus tridentatus