




New Planting Procedure - Summary of Integrated Management Plan

 Roundtable on Sustainable Palm Oil	 S I P E F	
NPP Reference Number	NPP RSPO 781255	
Country of the NPP submission:	Indonesia	
RSPO Membership Number	1-0021-05-000-00	
Reference to the management unit management plan	Integrated Management Plan PT. Mukomuko Agro Sejahtera Batu Kuda Estate, Mukomuko – Bengkulu Indonesia 2021	
Name(s) of estate(s) covered under this management plan:	Batu Kuda Estate	
<p>Guidance Notes:</p> <p>This summary management plan shall indicate at a minimum but not be limited to the following:</p> <ul style="list-style-type: none"> ● Key findings of the various assessments (e.g., potential minor environment and/or social risk requiring mitigation actions; total conservation areas). ● Key mitigation and monitoring regime, covering both the environmental and social aspects. ● Evidence of FPIC and key agreements with local communities (if any). ● An action plan describing operational actions consequent to the findings of the various assessments, referencing the grower’s relevant operational procedures. ● Designation of the management team and responsible person for the implementation. 		
1	SEIA	<p>The key findings of the NPP were that SIPEF had a suite of procedures for management of the company estates. There was an intention to roll these procedures out to the additional blocks.</p> <p>The general conclusions from the SEIA assessor are that :</p> <p>From the results of discussions, interviews, observations and review of documents, the following conclusions and recommendations can be made:</p> <ul style="list-style-type: none"> ● Occupational Safety and Health System, related to the procurement, use and monitoring of management of Personal Protective Equipment (PPE), work equipment, equipment for urgent situations, signs and warning signs, emergency exits, as well as completeness of health facilities and medicines. The observation of PT Hijau Daun was that this was not being comprehensively implemented. ● Fire prevention and management system including training, procurement of tools, and formation of an integrated team with the community –

- Facilities and infrastructure for employee housing
- **Management of domestic waste, toxic and hazardous waste (B3)** and liquid waste, including the application of organic fertilizers and chemical fertilizers in the estate. Ensuring these do not leach into rivers. It was often brought up (both by government and the community) that workers' housing was on riverbanks and the workers threw rubbish in the river. This is not true – the workers live an appreciable distance from the river. This incorrect statement needs to be corrected.
- **Socialization to workers** about all benefits provided to workers, including employment contracts, in accordance with applicable regulations. This was often mentioned in the interviews – workers do not clearly understand their benefits.
- Dissemination to the community about the **plantation management plan** and related opportunities for collaboration with the community.
- Protection and good management of **identified conservation areas**. Improving the quality of Conservation Values and maintaining their existence
- **Minimize pollution** in rivers so as not to reduce the ecosystem services provided by these rivers nor spoil the quality of the habitats.
- **Reforestation of the river buffer** in accordance with applicable regulations. This also implies applying chemicals at least 50 m from any water bodies, managing waste properly, and planting erosion preventing plants in the river buffer.
- Manage **liquid waste and solid waste** properly, so as not to damage existing conservation values.
- Forbid workers and the community to catch fish in ways that are not environmentally friendly (e.g. electro fishing or poisoning the rivers) Forbid hunting protected wildlife.
- Make rules together with the community on **sustainable river management**.
- Protect existing **cultural sites** in order to increase their value so that they can benefit the surrounding community.
- Giving access to the public to visit **natural beauty sites** (e.g. waterfall and Batu Kuda lookout) while still implementing security protocols.
- **Map clearly all High Conservation Values** Areas which identified on the operational map. This will ensure that damage can be avoided due to plantation activities.
- It is very important to build a **harmonious relationship with the local government**, and other parties such as NGOs and academics to be able to improve the values that exist in the area and prevent mismanagement that can have an impact on the performance and image of the company.

In the opinion of the assessor, If the company continues to implement FPIC and work carefully with the communities, this conversion can be considered a **low risk project**.

The main areas of risk in this project is clearly being dragged into the issue relating to the 930 ha of plasma which has been planted in areas zoned for forestry.

Management and monitoring regime

The management team consists of :

- Estates Manager – implement EHS management system on plantation level. Developing

the agreements between the communities and the company. Physical development of the oil palm estate within Batu Kuda.

- Sustainability Manager – managing the conservation areas and community engagement. Implementing the recommendations of the HCV / HCS report.
- Regional Manager – overseeing the function of the estate and Sustainability function.

Objective(s)	Action(s)	Timeline
Ensure implementation of Occupational Safety and Health System	EHS procurement, use and monitoring of management of Personal Protective Equipment (PPE), work equipment, equipment for urgent situations, signs and warning signs, emergency exits, as well as completeness of health facilities and medicines	Already taken place and ongoing.
Ensure implementation of Fire prevention and management system	Training, procurement of fire fighting tools, and formation of an integrated team with the community	Already taken place and ongoing.
Management of domestic waste, toxic and hazardous waste	<p>Controlling the application of organic fertilizers and chemical fertilizers in the estate. Preparing temporary hazardous waste storage, cooperation with licesend hazardous waste transporter, waste management training for worker, prepare waste bins for waste segregation.</p> <p>Minimize pollution in rivers so as not to reduce the ecosystem services provided by these rivers nor spoil the quality of the habitats.</p>	Already taken place and ongoing. Reporting on 6 monthly basis.
Reforesting the river buffer to maintain water quality and mitigate impact from soil erosion	<p>Reforesting the river buffer in accordance with applicable regulations.</p> <p>This also implies applying chemicals at least 50 m from any water bodies, managing waste properly, and planting erosion preventing plants in the river buffer.</p> <p>Make rules together with the community on sustainable river management.</p>	Already taken place and ongoing. Reporting on 6 monthly basis
Protect and maintain conservation areas, including protection of flora and fauna	Map clearly all High Conservation Values Areas which identified on the operational map. This will ensure that damage can be avoided due to plantation activities	Already taken place and ongoing. Reporting on

		<p>Protection and good management of identified conservation areas. Improving the quality of Conservation Values and maintaining their existence</p> <p>Protect existing cultural sites in order to increase their value so that they can benefit the surrounding community.</p> <p>Giving access to the public to visit natural beauty sites (e.g. waterfall and Batu Kuda lookout) while still implementing security protocols.</p> <p>Monitoring of flora and fauna by estate's staff (pellet count, mark-recapture, line transect)</p>	6 monthly basis
	Monitoring on community income and livelihood	<p>Support local business for services and goods provision, uphold regulation on minimum wage, use of proportional workforce from local communities, provision of work vacancy for local communities</p> <p>Socialization to workers about all benefits provided to workers, including employment contracts, in accordance with applicable regulations</p>	Already taken place and ongoing. Reporting on 6 monthly basis
	Monitoring and manage social unrest	<p>Implementation of FPIC principle, uphold land compensation procedures, avoid coercion and use of force during negotiation process, use of proportional workforce from local communities, provision of work vacancy for local communities, support local education organizations, provision of transparent information, consultation for CSR program</p> <p>build a harmonious relationship with the local government, and other parties such as NGOs and academics</p>	Already taken place and ongoing. Reporting on 6 monthly basis

2	HCV areas and HCS forests	<p>The HCV / HCS assessment has mapped areas that are suitable for development and areas that cannot be developed. The area statement is included in Table 1. The key findings were that some steep areas, remaining forest areas and the buffers of Sg Air Besah have to be set aside for conservation.</p> <p>Table 1. Area Statement (ha) – areas within the assessment area.</p> <table border="1" data-bbox="391 470 1540 929"> <thead> <tr> <th>Area Type</th> <th>Smallholder Area (ha)</th> <th>Batu Kuda Area (ha)</th> <th>Total Area (ha)</th> </tr> </thead> <tbody> <tr> <td>HCV1</td> <td>0.26</td> <td>84.58</td> <td>84.58</td> </tr> <tr> <td>HCV4</td> <td>0.26</td> <td>97.40</td> <td>97.66</td> </tr> <tr> <td>HCV5</td> <td>0.26</td> <td>58.93</td> <td>59.19</td> </tr> <tr> <td>HCV6</td> <td></td> <td>4.05</td> <td>4.05</td> </tr> <tr> <td>HCS</td> <td></td> <td>23.67</td> <td>23.67</td> </tr> <tr> <td>Total Conservation Area</td> <td>0.26</td> <td>126.84</td> <td>127.10</td> </tr> <tr> <td>Total Developable Area</td> <td>350.54</td> <td>1,867.77</td> <td>2,218.31</td> </tr> <tr> <td>Total Assessment Area</td> <td>350.8</td> <td>2,049.97</td> <td>2,400.77</td> </tr> </tbody> </table> <p>Mitigation and Monitoring Regime</p> <p>The mitigation and monitoring regime is described in detail in the HCV HCS report but broadly consists of Social and Biodiversity Monitoring.</p> <ul style="list-style-type: none"> - Biodiversity monitoring – the most basic thing is that the areas set aside for conservation are not disturbed. Particularly that the community does not go in and disturb these areas (e.g. hunting, cutting timber, opening gardens). Gardens being opened would stick out on satellite images but hunting and cutting of individual trees identified during annual surveys. It is recommended that a bird specialist goes and does an annual survey of the conservation areas. In the process would see whether trees had been cut and from the species list would see whether birds were being hunted. - Social monitoring - river buffers are usually the first areas to be encroached – in other estates where the river buffers have been abandoned, the community has requested to take over the harvesting of these areas. For this reason these areas should be checked annually and 6 monthly using satellite images. The other element is disputes – ensuring that disputes are quickly addressed and do not affect the development. For this reason there should be a dialogue between the land owners and the Community Engagement person. During an annual visit any HCV 6 areas should be checked for disturbance. <p>Table 2. Threats to biodiversity and social values.</p> <table border="1" data-bbox="391 1691 1508 2027"> <thead> <tr> <th>Value identified</th> <th>Threat</th> <th>Management</th> <th>Monitoring (Time schedule)</th> </tr> </thead> <tbody> <tr> <td>HCV 1</td> <td> <ul style="list-style-type: none"> • Hunting • Agricultural clearance </td> <td> <ul style="list-style-type: none"> • Agreements with the community about no hunting of birds / mammals in the HCV areas nor logging. • Agreement with smallholders that birds and mammals seen in their areas are not to be hunted. • Patrols recording the sighting of birds and mammals. </td> <td> <ul style="list-style-type: none"> • Undertake bird / mammals surveys to measure changes in bird mammal abundance / presence. (6 monthly) • Monitoring using a combination of monitoring from satellite images as well as on the ground patrols and being </td> </tr> </tbody> </table>	Area Type	Smallholder Area (ha)	Batu Kuda Area (ha)	Total Area (ha)	HCV1	0.26	84.58	84.58	HCV4	0.26	97.40	97.66	HCV5	0.26	58.93	59.19	HCV6		4.05	4.05	HCS		23.67	23.67	Total Conservation Area	0.26	126.84	127.10	Total Developable Area	350.54	1,867.77	2,218.31	Total Assessment Area	350.8	2,049.97	2,400.77	Value identified	Threat	Management	Monitoring (Time schedule)	HCV 1	<ul style="list-style-type: none"> • Hunting • Agricultural clearance 	<ul style="list-style-type: none"> • Agreements with the community about no hunting of birds / mammals in the HCV areas nor logging. • Agreement with smallholders that birds and mammals seen in their areas are not to be hunted. • Patrols recording the sighting of birds and mammals. 	<ul style="list-style-type: none"> • Undertake bird / mammals surveys to measure changes in bird mammal abundance / presence. (6 monthly) • Monitoring using a combination of monitoring from satellite images as well as on the ground patrols and being
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		<ul style="list-style-type: none"> • All staff have maps on their handphones. Ensure all HCV areas are marked on these maps. • Agreements with the community about no clearance / logging within the HCV areas. • Paying ganti rugi for the HCV areas within the assessment area. • Socialisation of the boundaries of the concession area with the community. • Replanting the buffer zones of S Air Besah with species that can be used by birds and mammals as food sources. Suggested species are : <ul style="list-style-type: none"> ○ Campnosperma auriculata ○ Dracontomelon dao ○ Durio spp ○ Polyalthia glauca ○ Ficus uncinata ○ Santiria tomentosa ○ Syzygium spp ○ Lithocarpus spp 	informed by staff working in the village about encroachment or logging. (6 monthly – formally / in the course of day to day business - informally)	
	HCV 2	• HCV 2 is not present		
	HCV 3	• HCV 3 is not present		
	HCV 4	<ul style="list-style-type: none"> • Government requirement to buffer any small / large rivers by 50 m / 100 m respectively. • Erosion on areas of steep slopes • Encroachment by local people. • Lack of awareness by company employees and contractors about HCV 4, particularly small river riparian buffers and mismanagement of high risk activities within buffer areas (e.g building roads through riparian areas, developing steep slopes). 	<ul style="list-style-type: none"> • Check the distance between the Anak Sg Ular and the concession boundaries in-field to map out if any areas within the concession are within 100m of the river boundary. If they are within 100 m, demarcate these areas in-field. • A slope survey and demarcating areas greater than 22 degrees to be reserved from development. • Ensure that the communities realise that the riparian buffers are not empty land available for agriculture. This should be specifically stated in agreements and socialized to the community. These areas should be marked with signs. • SOPs to ensure land clearing contractors don't inadvertently clear HCV 4 areas. • All staff have maps on their handphones. Ensure all HCV areas are marked on these maps. • It is also important to avoid reducing root cohesion on steep hill sides and the diversion of road drainage onto vulnerable slopes. • The roading network at Batu Kuda is being reassessed (because there are far too many roads). The network should be designed based on locating roads along ridgelines, placing rock blankets along roads to limit the formation of rills and gullies, drainage systems should be incorporated but should not drain onto disturbed soils or erodible slopes, avoiding deep cuts into soils in mid-slope roads and maintaining the road surface and drainage system¹. • There may be unmapped small streams / waterways in the assessment area (even < 1 m width). Pollutants entering small waterways could have major impacts on water quality in larger rivers. If these are identified by the plantation manager / smallholder an area 10 m either side of the waterway should be reserved from development and ideally planted with natural tree species. Where 	<ul style="list-style-type: none"> • Monitoring using a combination of monitoring from satellite images as well as on the ground patrols and being informed by staff working in the village about encroachment. (6 monthly – formally / in the course of day to day business - informally) • Monitoring of land clearing to ensure buffers and steep areas (if there are local steep areas that were not picked up in the DEM) are not cleared. (6 monthly – formally / in the course of day to day business - informally) • Terraces must be regularly inspected for signs of soil erosion. (6 monthly – formally / in the course of day to day business - informally) • Cover crops are inspected regularly and replanted in areas in which the cover crop has failed, with priority given to areas particularly vulnerable to erosion such as terrace slopes. (6 monthly – formally / in the course of day to day business - informally) • Sediment monitoring in rivers (e.g. taking photos of river beds and checking whether islands of silt are forming). (6 monthly)

¹ Reference : (Acton, 2016)

		these areas are already planted the assessor strongly recommends that the managers minimise, or ideally eliminate altogether, the application of fertilisers and pesticides within 10m of small and/or artificial watercourses. Maintaining good vegetation cover along the banks of small waterways is particularly important during land clearance and planting/replanting of oil palms when large areas of bare soil were often washed into waterways. This is supported by Barclay et al. (2017). This applies to the smallholder plots also.	<ul style="list-style-type: none"> Erosion monitoring by putting poles in places and checking to see if soil loss is occurring. Monitoring slopes for spot erosion and gullies appearing. (6 monthly)
5	<ul style="list-style-type: none"> HCV 5 follows HCV 4 and is not repeated. 		
6	<ul style="list-style-type: none"> Inadvertent clearing of the graves. Inadvertent clearing of Batu Kuda and Batu Kambang Inadvertent clearing of the waterfall site 	<ul style="list-style-type: none"> Prior to land clearing ensure the area is well demarcated so the possibility of errors is minimized. All staff have maps on their handphones. Ensure all HCV areas are marked on these maps. Ensuring the HCV areas remain undisturbed. 	<ul style="list-style-type: none"> Visit each site to make sure on the condition of it. Take photos of each site to monitor that there is no degradation or disturbance of the area (by comparing the condition with previous photos).(6 monthly)
Peat	<ul style="list-style-type: none"> Not present in the assessment areas 		
HCS forest	<ul style="list-style-type: none"> These follow HCV1 and HCV 4 and are not repeated here 		

Management Team

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Objective(s)	Action(s)	Timeline
Ensure no clearing of conservation areas	Mark out all conservation areas prior to development. Initially with flagging tape and then with signs	6 monthly on the ground monitoring.
Ensure that the communities benefit from the development	Six monthly meetings with the communities. Assist in resolving disputes	Six monthly

3	Stakeholder and local people engagement (FPIC process)	<p>Within the HCV HCS report there are annexes which detail the FPIC that took place prior to the assessment. Then within the body of the report are details of the many meetings with the communities and land owners. The culmination of this process was the development / conserve map which was signed-off by the respective parties.</p>												
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- Regional Manager – overseeing the function of the estate and Sustainability function.

Objective(s)	Action(s)	Timeline
Ensure that the FPIC process has been undertaken adequately and the development is agreed to by the communities / landowners.	Undertake information sessions with the respective parties. Comments and suggestions from people should be taken into account by the company when formalising the ICLUP. If more GRTT takes place – ensure this is consistent with government regulations and RSPO guidelines for this process.	Already taken place, ongoing

4 **Soil and Topography**

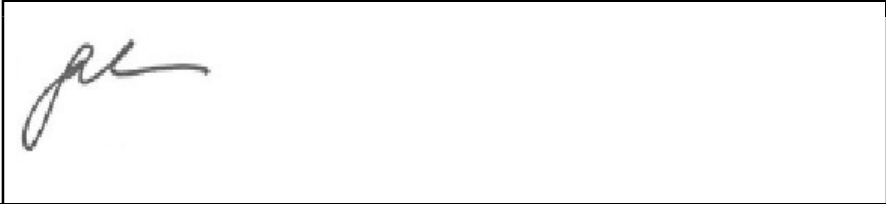
In the Assessment Area most of the soils are Dystrudepts or Paleudults. Slope class and its hectarage in Batu Kuda Estate:

Degree of slope	Hectarage (Ha)	Percentage (%)
0.02 – 5.00°	256.91	12.54
5.01 – 10.00°	542.59	26.50
10.01 – 15.00°	637.81	31.14
15.01 – 20.00°	428.72	20.93
20.01 – 25.00°	141.78	6.29
>25°	40.41	1.97

The Sustainability Department will be responsible for ensuring the NO GO areas are clearly marked out.

Objective(s)	Action(s)	Timeline
Ensure no land clearing of steep areas.	These areas have been marked out in the HCV / HCS report and are included in the conservation area. Mark out with flagging tape prior to land clearing.	Prior to land clearing

5	GHG	The GHG result explained in the document as follows:																																																																																
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		Signature	
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