Bhutan for Life

Environmental and Social Management Plan for Biological Corridor 3 (2020)

1. Introduction

(A) Project Background

The Bhutan for Life (BFL) project aims to ensure a robust network of protected areas and biological corridors that secures human well-being, biodiversity conservation and increase climate resilience in Bhutan. The project provides a 14-year financial bridge that allows for immediate improvement in the management of Bhutan's protected areas for climate resilience, and the prompt delivery of mitigation, adaptation and biodiversity gains, while the country gradually ratchets up its own financing resources.

BFL seeks to achieve the following objectives:

- Help Bhutan remain carbon neutral by increasing forest and vegetative cover within the Protected Area System;
- Enhance the socio-economic wellbeing of communities in and in the vicinity of the PAS through climate-informed natural resources management;
- Maintain stable, thriving and diverse populations of key species contributing toward national and global biodiversity goals;
- Strengthen organizational, institutional, and financial capacity for effective management of PAS.

BFL includes five components that reflect these goals, divided into 16 milestones (or outputs) and over 80 detailed activities.

(B) Scope of ESMP

The preparation of this Environmental and Social Management Plan (ESMP) was required in order to manage the environmental and social impacts through and specific mitigation actions required to implement the project in accordance with the requirements of WWF's Social Safeguards Integrated Policies and Procedures (SIPP), the project's Environmental and Social Management Framework (ESMF), and applicable national legislation and regulations.

The ESMP provides an overview of the environmental and social baseline conditions on the routes of the proposed second segment of the project, summarizes the potential impacts associated with the proposed activities and sets out the management measures required to mitigate any potential negative impacts.

This ESMP will be implemented by BFL focal person in each park authority (PA) and biological corridor (BC), and by the contractor to be commissioned by each PA/BC for the project.

(C) Purpose of ESMP

This Site-Specific ESMP is a project-specific source document detailing the environmental and social protection requirements to mitigate and minimize the adverse impacts. The ESMP's primary purpose is to ensure that the environmental requirements and social commitments associated with the project are carried forward into implementation and operational phases of the project and are effectively managed. The specific objectives of this ESMP are as hereunder:

- Minimizing any adverse environmental, social and health impacts resulting from the project activities;
- Conducting all project activities in accordance with the relevant RGoB Laws and WWF's safeguard operational policies and guidelines;

- Preventing environmental degradation as a result of either individual subprojects or their cumulative effects;
- Enhancing the positive environmental and social outcomes of project activities;
- Ensuring that the proposed mitigation measures are feasible and cost-efficient;
- Providing an Action Plan to ensure that the project impact mitigation measures are properly implemented and monitored;
- Ensuring that all stakeholders are engaged in the project activities' preparation and implementation, and their concerns are fully addressed.

(D) Applicable law, policies, and regulation

This ESMP is developed by following the guidelines as set forth in the BFL's ESMF.

Applicable RGoB laws and policies include the Constitution of the Kingdom of Bhutan, 2008; legislation on land and moveable property (Land Act of Bhutan 2007; Land Rules, 2007; The Moveable Cultural Property act of Bhutan, 2005); legislation and regulations on forests and protected areas (National Environment Protection Act, 2007; Forest and Nature Conservation Act of Bhutan, 1995; Forest and Nature Conservation Rules and Regulations of Bhutan, 2017; National Forest Policy, 2011); legislation on water and waste prevention (Water Act of Bhutan, 2011; Waste Prevention and Management Act, 2009); legislative requirements on environmental assessment (Environmental Assessment Act, 2000 and Regulations on the Environmental Clearance of Projects, 2001); and other relevant laws (The Local Government Act of Bhutan, 2009; Livestock Act of Bhutan, 2001; The Biodiversity Act of Bhutan, 2003; The Pesticides Act of Bhutan, 2000; The Penal Code of Bhutan, 2004; National Access and Benefit Sharing (ABS) Policy (Draft), 2014).

WWF's safeguards policies that are relevant to this project are as follows: Policy on Environment and Social Risk Management; Policy on Protection of Natural Habitats; Policy on Involuntary Resettlement; Policy on Indigenous Peoples; Standard on Pest Management; Policy on Accountability and Grievance System; Standard on Physical Cultural Resources; as well as general standards on occupational and community health and safety and on energy efficiency.

In general, RGoB's laws, policies, and guidelines are in line with the WWF's environmental and social safeguards requirements. However, there are a few differences between the two systems. With regard to environmental impacts, there are no direct contradictions between the RGoB laws and regulations and the WWF's SIPP, but the requirements of the latter are more extensive. All project activities should fully comply both with the RGoB's Regulations on the Environmental Clearance of Projects, and with the procedures and mitigation measures prescribed in this ESMF. In case that the WWF's SIPP requirements are more extensive, strict, or detailed than the RGoB legislation and policies, the former will apply to all project activities. With regard to social impacts, the primary discrepancies between the RGoB laws and regulations and the WWF's SIPP refer to the status of non-title holders and informal land use, and the commitment to participatory decision-making processes. First, according to the WWF's SIPP, all users of land and natural resources (including people that lack any formal legal ownership title or usage rights) are eligible to some form of assistance or compensation if the project adversely affects their livelihoods. The RGoB laws only recognize the eligibility of land owners or formal users to receive compensation in such cases. Second, the WWF's SIPP require extensive community consultations as part of the development of various safeguards documents and during project activities. RGoB legislation does not include similar requirements. For the purposes of the BFL project, the provisions of the WWF's SIPP shall prevail over the RGoB legislation in all cases of discrepancy.

2. Environmental and Socio-Economic Conditions

1. Geographical Location

Biological Corridor 3 (BC 3) has a total area of 376.60 sq. km with elevation range of 440-2300 masl. It is located exactly between the Jigme Singye Wangchuck National Park (JSWNP) – Royal Manas National Park (RMNP) in the north-east to Pibsoo Wildlife Sanctuary (PWS) in the south-west under Sarpang Dzongkhag. About 90% of BC 3 falls within Sarpang Forest Division and rest 10% of the area fall under Tsirang Forest Division.

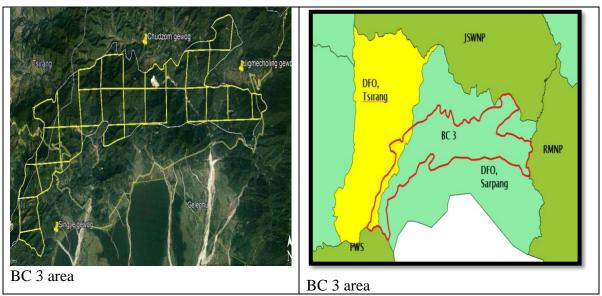


Figure 1: Maps showing BC 3 areas

2. Environment

The BC 3 is adorned with tropical forest of abundant hardwood trees. It enjoys hot rainy summer and cold winter seasons. The diversity of the flora and fauna is rich.

Total of 180 species from 18 NFI grids further classified into four major habitats were recorded, i.e. majority of the bird species were recorded from warm broadleaved forest (n = 64), followed by riverine (n = 51), agriculture (n = 35), and sub-tropical forest (n = 30).

BC 3 is dominated by barking deer (n = 99), followed by wild pigs (n= 80), sambar deer and elephant (n = 70) each. This shows that barking deer, wild pigs and sambar deer had wide ranges of habitat uses within the different elevation and habitat types.

3. Socio-Economic condition

BC 3 covers two Dzongkhags (Sarpang and Tsirang). It encompasses seven Gewogs (Senge, Chudzom, Gelephu, Samtenling, Dekiling, Shershong and Gakidling) under Sarpang and two Gewogs (Patshaling and Dunglagang (Tsakaling Chiwog in Patshaling Gewog) under Tsirang. There are 1664 households and 41 households of Sarpang and Tsirang respectively depending on BC 3. The primary source of income for the people living in these areas are from livestock and agriculture product.

3. Planned activities in Year 2020

The activities that are planned in BC 3 in 2020 are:

1. Improvement of salt licks and waterholes

Sarpang Dzongkhag: It is a rehabilitated activity. The site for this activity is located at Tsachu, Gadwal and Teenguney under Sershong, Gakidling, Dekiling and Jigmecholing Gewog in

Sarpang Dzongkhag. The sites chosen are crucial wildlife habitats, and are in the forest land with scarce water. The budget for the activity is USD 4761.90. There are about 33 households near the activity site. The restoration works involves three water holes and two salt licks. For the waterholes, it includes minor manual digging on the existing area and for salt licks includes adding salt cakes. There will be 5-6 workers involved for a month.

Tsirang Dzongkhag: It is a rehabilitated activity. The site for this activity is located at Alubari, Sikaridara Mukterchok, Tsakaling in Patshaling Gewog in Tsirang Dzongkhag. The chosen location is a crucial wildlife habitat and there is water scarcity. The budget for the activity is USD 2380.95. There are about 41 households (18 household in Patsaling and 23 household in Tsakaling Chiwog) nearby the project activity sites. Out of 41 households, 23 live in close proximity to the project implementation site. They depend on livestock and agriculture, but their livelihoods will not be affected. The activity will involve restoration of five waterholes and salt licks each. There will be 20 workers employed for a month. They will camp at the site for a month.

2. Implement restoration to enhance quality and resilience of lowland grassland

This site has been selected because it is crucial foraging wildlife habitat. The area is forested on a gentle slope within the BC 3 as shown in Figure 2. The site is at Katley-Kalikhola of Patsaling Gewog in Tsirang Dzongkhag, but it is away from the community (about an hour walk). The activity will involve manually clearing of bushes and planting bamboo, broom grass, and Vetiver (cattle fodder grass). It is expected that this activity will help to mitigate human wildlife conflict. 20 workers will be involved on rotation basis.



Figure 2: Activity site at Katley-Kalikhola

4. Environmental and Social Impacts and Mitigation Measures

1. Improvement of water holes and salt licks

The potential environmental and social impacts of this activity are as follows:

- a. Restoration of waterholes
 - Waste: soil from excavation activities and waste from construction activities
 - Workers' health and safety
 - Increase poaching because it becomes gathering spot for animals
- b. Improvement of salt licks
 - Increase poaching

2. Restoration of lowland grasslands

The potential environmental and social impacts of this activity are as follows:

• Occupational and health safety of the workers.

The potential adverse environment and social impacts related to each activity and the corresponding mitigation measures have been prepared as shown below:

1. Improvement of water holes and salt licks in Sarpang

Potential Potential	Impact	Proposed mitigation measures	Responsible	Cost
impact	scale	1 Toposed intigation measures	party	Cost
		u ataula alaa	party	TIC\$ 4.761.0
Activity 1.1: Rowards Waste: soil from digging activities and waste from construction activities (mostly solid waste)	Short term Minor	 Proper containers/waste bins should be provided at the project site; Dumping of waste in the waterholes, on the sides of the road, on private land, or in other non-designated places should be strictly prohibited; Dumping of waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; Collection, transportation and final disposal of all waste should be carried out on a daily basis and not left in the protected areas; Burning of construction waste should be prohibited; Solid waste mostly soil and boulders should be used for 	BFL focal person (BC 3, Sarpang) Contractor	To be part of worker agreement. From the activity cost.
Workers' health and safety	Short term Minor	 construction of wall/bund for waterhole to be possible extend. Comply with the workers' health and safety guidelines; Ensure regular health screening for the workers pre and during construction activities; Ensure that no underage workers, or children are engaged; Ensure decent work conditions, including an appropriate national wage rate, working hours, accommodation and food for workers shall be provided to all workers; Ensure that workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination 	BFL focal person (BC 3, Sarpang) Contractor	To be part of worker agreement. From the activity cost.

			with respect to any aspects of the employment relationship, such as		
			recruitment and hiring,		
			compensation (including wages		
			and benefits), working conditions		
			and terms of employment, access		
			to training, job assignment,		
			promotion, termination of		
			employment or retirement, and		
			disciplinary practices;		
		•	Provide workers with an incident		
			report book and ensure that they		
			are aware of the project's		
			grievance redress mechanism and		
			can use it to raise workplace		
			concerns.		
Increase	Short term	•	Construct waterholes in areas	BFL focal	To be part of
poaching	Minor		where poaching is limited;	person (BC	regular
		•	BC authorities shall carry out	3, Sarpang)	patrolling
			increased patrolling during and		
			after the waterhole construction;	Contractor	
		•	Installation of camera traps to		
			monitor.		
Activity 1.2 Im	î v	sali		·	
Increase	Short term	•	Saltlicks shall be constructed in	BFL focal	To be part of
poaching	Minor		areas where poaching is limited;	person (BC	regular
		•	Increased patrolling of BC	3, Sarpang)	patrolling
			authorities should be carried out		
			during and after the waterhole		
			construction;		
		•	Installation of camera traps to		
			monitor.		

2. Improvement of water holes and salt licks in Tsirang

<u> 2. Improv</u>				
Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Cost
Activity 2.1: I	Restoration o	f waterholes		US\$ 4,761.9
Waste: soil from digging activities and waste from construction activities (mostly solid waste)	Short term Minor	 Proper containers/waste bins should be provided at the project site; Dumping of waste in the waterholes, on the sides of the road, on private land, or in other non-designated places should be strictly prohibited; Dumping of waste shall be prohibited on fragile slopes, forests, religious or other culturally sensitive areas or areas where livelihood is derived; Collection, transportation and final disposal of all waste should be 	BFL focal person (BC 3, Tsirang) Contractor	To be part of worker agreement. From the activity cost.

Workers' health and safety	Short term Minor	carried out on a daily basis and not left in the protected areas; Burning of construction waste should be prohibited; Solid waste mostly soil and boulders should be used for construction of wall/bund for waterhole to be possible extend. Comply with the workers' health and safety guidelines; Ensure regular health screening for the workers pre and during construction activities; Ensure that no underage workers, or children are engaged; Ensure decent work conditions, including an appropriate national wage rate, working hours, accommodation and food for workers shall be provided to all workers; Ensure that workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices; Provide workers with an incident report book and ensure that they are aware of the project's grievance redress mechanism and can use it to	To be part of worker agreement. From the activity cost.
Increase poaching	Short term Minor	 raise workplace concerns. Construct waterholes in areas where poaching is limited; BC authorities shall carry out increased patrolling during and after the waterhole construction; Installation of camera traps to BFL focal person (BC 3, Tsirang) Contractor	To be part of regular SMART patrolling
Conflict with communities	Short term Minor	 monitor. Consultation to create awareness 	From the activity cost

Activity 2.2: Improvement of salt licks						
Increase poaching	Short term Minor	•	Saltlicks shall be constructed in areas where poaching is limited; Increased patrolling of BC authorities should be carried out during and after the waterhole construction; Installation of camera traps to monitor.	BFL focal person (BC 3, Tsirang)	To be part of regular SMART patrolling	
Conflict with communities	Short term Minor	•	Consultation to create awareness	BFL focal person (BC 3, Tsirang)	From the activity cost	

3. Restoration of lowland grasslands in Tsirang

Potential impact	Impact scale	Proposed mitigation measures	Responsible party	Cost	
		vland grasslands		US\$ 3,000	
Workers' health and safety	Short term Minor	 Comply with the workers' health and safety guidelines; Ensure regular health screening for the workers pre and during the activity; Ensure that no underage workers, or children are engaged; Ensure decent work conditions, including an appropriate salary, working hours, accommodation and food for workers shall be provided to all workers; Ensure that workers are employed on the principle of equal opportunity and fair treatment, and there is no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices; Provide workers with an incident report book and ensure that they are aware of the project's grievance redress mechanism and can use it to raise workplace concerns. 	BFL focal person (BC 3, Tsirang) Contractor	To be part of worker agreement. From the activity cost.	

5. ESMP Implementation Arrangements

The implementation of project activities will be carried out by the BFL focal persons in BC 3. The focal persons will be responsible for compliance with all procedures outlined in this ESMP, as well as compliance with any requirements to obtain clearances, permits, approvals, or consent documents from relevant authorities and stakeholders.

This ESMP should be part of the contract that the BC will sign with the Contractor(s) for implementation of the planned activities in BC 3 in 2020. The Contractor is obligated to perform all proposed preventive or mitigation environmental and social measures in this plan and to keep the evidence of any documents related to applying these measures (e.g., letter asking the municipality for disposal of inert waste, records on OHS information session performed for all workers before start of activities, all developed EHS plans, etc.). An OHS information session should be organized by the Contractor for all workers prior start the project activities and prior any specific tasks with high health risks.

The BC 3 Supervising Engineer needs to monitor the implementation of proposed measures by the Contractor and Contractor's subcontractors with visual checking, reviewing the records of evidence that the measures have been applied and ask the Contractor to apply the measures as soon as possible. Non-compliances should be recorded and the Report on any non-compliances should be reported to the ESS consultants immediately, and the ESS consultants will report it to the PCU (M&E Officer). Each non-compliance should be closed with appropriate measure/s and the evidence should be kept.

Disbursement of project funds to the BC will be contingent upon their full compliance with the safeguards requirements.

6. ESMP Monitoring Arrangements

The BFL focal person in BC 3 will closely monitor the implementation of all planned activities and the required mitigation measures, and ensure that they fully comply with this ESMP and with the terms and conditions included in the environment clearances issued by RGoB's national authorities. BC 3 is also fully responsible for the compliance of all external contractors and service providers working in the BC 3 with the safeguards requirements outlined in the ESMP.

The monitoring of activities under this BC 3 will be carried out in the following manner:

1. Waterhole and salt licks management at Sarpang:

- Monitoring by implementing entities:
 - Field visits at least twice during the intervention and then monthly as part
 of the "SMART patrolling" activity (please adapt based on field conditions,
 and also based on the availability of SMART patrolling activities) August
 September, 2020
 - Reports by the implementing entities submitted to ESS consultants weekly during the intervention and then monthly after the intervention completion,
 August - September, 2020
- Monitoring by ESS consultants:
 - Field visits by ESS consultants at least once during the intervention -September 2020
 - Reports by ESS consultants to the PCU (M&E officer) within two weeks after the field visit and for semi-annual reporting - October 2020 in addition to the annual progress report submitted in December 2020.

- Annual Reports by PCU (M&E officer) to Secretariat
 - o Annual Progress Report 15 January, 2021
- Annual reports of the Secretariat to WWF US (as part of mid-year and final APR)
 - o Annual Progress Report 30 January, 2021
- 2. Waterhole and salt licks management at Tsirang:
- Monitoring by implementing entities:
 - Field visits at least twice during the intervention and then monthly as part
 of the "SMART patrolling" activity (please adapt based on field conditions,
 and also based on the availability of SMART patrolling activities) August
 September, 2020
 - Reports by the implementing entities submitted to ESS consultants weekly during the intervention and then monthly after the intervention completion,
 August - September, 2020
- Monitoring by ESS consultants:
 - Field visits by ESS consultants at least once during the intervention -September 2020
 - Reports by ESS consultants to the PCU (M&E officer) within two weeks after the field visit and for semi-annual reporting - October 2020 in addition to the annual progress report submitted in December 2020.
- Annual Reports by PCU (M&E officer) to Secretariat
 - o Annual Progress Report 15 January, 2021
- Annual reports of the Secretariat to WWF US (as part of mid-year and final APR)
 - o Annual Progress Report 30 January, 2021

3. Restoration of lowland grasslands at Tsirang

- Monitoring by implementing entities:
 - o Field visits at least twice during the intervention and within three months after the intervention July, 2020 and August, 2020
 - Reports by the implementing entities submitted to ESS consultants within a week after each field visit - July, 2020 and August, 2020
- Monitoring by ESS consultants:
 - Field visits by ESS consultants at least once during the intervention, together with the implementing party - August, 2020
 - Reports by ESS consultants to the PCU (M&E officer) within one week after the field visit and within three months after the intervention – September, 2020 in addition to the annual progress report submitted in December 2020.
- Annual Reports by PCU (M&E officer) to Secretariat
 - o Annual Progress Report 15 January, 2021
- Annual reports of the Secretariat to WWF US (as part of mid-year and final APRs)
 - Annual Progress Report 30 January 2021

7. Capacity Need and Budget

Activities under this ESMP will be implemented by the BFL focal person, supervising engineer, and a contractor. The budget for improvement of salt licks, snags, and waterholes and wetlands, enrichment planting is \$9,523.8. The budget for restoration of the lowland grassland is \$3000.

8. Consultation and Disclosure Mechanisms

This ESMP has been prepared in a participatory manner, and a community consultation was carried out on November 14, 2019 in Changala house, Tsakaling Gewog to inform local communities regarding the conflict between human and wildlife, salt lick site development, improvement of waterholes and enrichment plantations (lowland grassland) to solicit their opinions, and enable them to question proposed mitigation measures. No issues were raised during the consultation meeting.

The detailed minutes of the consultation meeting are attached to this ESMP, along with a full list of participants (disaggregated by gender and age).

The full English version of this ESMP, as well as an executive summary in Bhutanese, shall be disclosed on the website of MoAF, BFL and WWF, Bhutan Program. Hard copies of the ESMP should also be available at the PA Management Office and at the PCU Office.

9. Stakeholder Engagement Plan

The local community that resides in the vicinity of the planned BFL activities in BC 3 will be engaged throughout the implementation of these activities.

- For activities that have no direct impact on communities (improvement of lowland grassland and waterhole rehabilitation) consultation meetings have to be organized once a year (can be combined with consultations for other BFL or non-BFL activities)
- July 2020 at Gup office for water holes and salt licks for Sarpang
- November 2019 2020 at the Community for water holes and salt licks for Tsirang
- Consultation lowland grassland (Tsirang) July 2020
- The BFL focal person has to submit the official minutes of consultation meetings (along with a list of participants, disaggregated by gender and age) to ESS consultants within one week after the completion of the consultation. The ESS consultants will submit the consultation reports to the PCU (M&E officer) one week after their receipt. The PCU (M&E officer) will report to the Secretariat on a semi-annual basis.

Annex 1. Minutes for community consultation on waterhole, salt lick, and enrichment planting for Tsirang under BC3

Report on Awareness Program at Tsakaling.

Date: 14th November, 2019.

Tsakaling under Patsaling gewog is one of the villages which is experiencing human wildlife conflict mainly due to arrival of elephant. Keeping in the mind, the diverting animals away from human settlement, is only way to minimize conflict between human and wildlife. We focus this small village as a pilot area to provide awareness among many communities. During the awareness program, we discussed mainly about the conservation and coexistence of wildlife and human. As of now, there are very little destructions made by any of the wild animals like elephant and other herbivores either on the properties (crops) or human life but, it is never guaranteed and foreseen that they will not be affecting in the future.

So, we discussed about the disturbances and fragmentation of wildlife habitat due to rapid raise in human population over the few decades. Likewise, we also discussed and disseminated the roles and responsibilities of communities in conservation. As an elephant is already approaching their settlements, we discussed with them about the solutions to divert them away. Salt and water is one of the reasons they are looking for in the settlement. For this, we decided that with support from BFL, salt lick site development, improvement of waterholes and enrichment plantations (lowland grassland) may become immediate solutions and agreed to enforce as a pilot activities. The communities welcome the arrangement and agreed to implement the suggested solutions that are discussed with them.

Moreover, we also made aware about the top predators who rule the food chain in the ecosystem. Co-existence of wildlife and their dependency on each other is very important in the wild. We convinced them why population of wild pig is rapidly increasing keeping the food chain as an example. The consultation meeting was ended successfully with maximum female participants.



Few clicks of images from awareness program.

Annex 2. Participants list for community consultation on waterhole, salt lick, and enrichment planting for Tsirang under BC3

SI No	Name of Participants	Village	Male	Female	Signature
١.	Tashi Wangmo	Isalesting	-	P	
	Rinchen Choden		-	P	- Carp
3.	Passarg Dema	-11-		F	
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Registration form for conservation awareness and education.

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	Chagala		Aq.	as:	Busal_
	Dojji Wagdi		M	3	
			tw		Ento
14	Pena Gyeld Vauxa Wongs	,	m.		Textes
20	Stacka Dogi	Isiras	m		Ser Server
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