

**Amendment 1**  
**to Request for Quotation on Purchase and delivery of satellite transmitters in**  
**the form of collars to study snow leopard migration**  
**Reference: RFQ-2020-074**

**1. The Terms of Reference (Annex 1, page 7 of the RFQ) shall be read as follows:**

**Technical specifications for satellite transmitters in the form of a collar:**

<b>ANIMAL DESCRIPTION</b>	
An animal to be worn by the collar	Snow leopard (lat. Panthera Uncia)
Body length from base of tail to nose tip	100-130 cm.
Tail length	80-100 cm.
Height in the crest about	60 cm.
Average weight in females	25-35 kg
Average weight in males	45-50 kg
Neck circumference at base of females	44-45 cm.
Neck circumference at the base of males	46-47 cm.
<b>DELIVERED GOODS</b>	
<i>Main technical characteristics</i>	<i>Required specifications/quantity</i>
Satellite transmitters in the form of collars to study snow leopard migration	6 pcs.
Weight of the satellite transmitter: collar + equipment + battery + dropping mechanism	up to <del>500 g.</del> 600 g.
Data transmission satellites	Iridium
Batteries	Lithium-thionyl chloride Li-SOCI2 (Lithium Thionyl Chloride)
Battery lifetime	At least 10,000 positions
Electronics element distribution	The electronic elements should be divided into two parts, located at the top and bottom of the collar (the battery is always at the bottom), for low probability of damage to animals
Battery replacement option by hand	yes
Cartographic projection	Cartographic projection WGS-84, RT90 или UTM
VHF radio beacon (specified by the customer 138-230 MHz)	VHF radio beacon (specified by the customer 138-230 MHz)
2-way communication	yes
The collars will be used	On female and male animals

	Attention! collars should be flexible for use on both genders.
Using a collar on one animal	It is possible to use a satellite transmitter on one animal for at least 2 years.
Ability to use the collar more than once	yes
The presence of the release mechanism (reset).	yes
Sensors	temperature sensors, activity sensors, death sensors
Software availability	yes
GPS Location	yes
Delivery of software for data download from collars	yes
Ability to cover GPS locations per day	10 locations (with only two transfers of 5 positions per day)
Remote download of satellite data (satellite transmitter)	yes
Material and shape of the collar belt.	<ul style="list-style-type: none"> <li>- Must be waterproof and UV resistant;</li> <li>- Must be safe for animal skin and fur, and comfortable for animals;</li> <li>- The material of the collar must be: <ul style="list-style-type: none"> <li>- resistant (reinforced)</li> <li>- made of synthetic material</li> <li>- to withstand the harsh conditions of nature in Kazakhstan;</li> </ul> </li> <li>- Should not harm the animal;</li> <li>- Should not have sharp edges, types of material that are not suitable for the neck of the leopard.</li> </ul>
Collar Size	The size of the collar should be adjustable and should exceed the neck girth of the animal by 5 cm.
The antenna should be hidden inside to avoid damage and injury to the animal	yes
Temperature range for satellite transmitters operation	-25°C to +50°C
Web service	The ability to track the collar via web service

Satellite communication services	The price of the offer should include a monthly subscription for 6 collars for 2 years.
Activation	The price of the offer must include Iridium activation on all collars
Activation of collars	activation of collars will be carried out on request of the customer, individually, as the satellite transmitter is put on the animal!