

Recommendation for managing and monitoring natural saltlicks in Malaysia

Defined under the Wildlife Conservation Act 2010, a 'saltlick' is 'any mineral spring or ground containing or bearing salt or any other mineral, the consumption of which is conducive to the health or wellbeing of wildlife'. Exist in generally two different forms, spring saltlick and dry-land saltlick, they are utilised by tiger prey species such as sambar deer, gaur, barking deer and wild boar as a supplement to their nutrient-poor plant diet (Matsubayashi *et al.*, 2006; Robbins, 1993). Recognising the importance of sustaining populations of multiple RTE species, salt licks are recognised as an indicator for the presence of HCV 1 under the Malaysian National Interpretation for the Identification of HCVs. Guidelines on how the saltlicks and the areas around them should be protected and managed are still lacking.

Usually found distributed in lowland dipterocarp/hill dipterocarp forests of elevations lower than 1,000 m above sea level, saltlicks are threatened by development and logging. The rich biodiversity in vicinity of the saltlick also makes it a target for poachers. In ensuring that the saltlicks are conserved for the maintenance of HCV 1, WWF-Malaysia is putting forward the below recommendations for consideration:

1. **HCVA** – It is proposed that the size of the HCV Area (HCVA) for all saltlicks identified in HCV assessments in Malaysia is to follow the current existing law (Wildlife Conservation Act, 2010) encompassing a radius of 400 m centring the saltlick.
2. **HCVMA** – the HCV Management Area (HCVMA) is proposed to be an additional buffer based on the study by Rayan *et al.* (2013) covering a radius of 2km from the saltlick (refer to recommendation 3b below for details).
3. **Management recommendations:**
 - a. **HCVA** – Put up signage in close proximity of all identified saltlicks for easy identification of the saltlick. Within the HCVA, there should be no hunting, no logging operation or land clearing allowed and no temporary or permanent structures should be built this area, even for tourism purposes (e.g. watch tower).
 - b. **HCVMA (Buffer)** – Establish of a buffer around the saltlick as HCVMA as additional protection from disturbances to the saltlick. WWF-Malaysia's ecological study in Belum-Temengor Forest Complex has shown that a minimum no-disturbance buffer zone of 2km around saltlicks is needed for sambar deer, the main tiger prey species, to have a high probability of the sambar deer utilising it (Rayan *et al.*, 2013). Using a precautionary principle approach, ideally this science-based recommendation should be applied to all natural saltlicks in Malaysia to ensure adequate protection is afforded for this critical resource that many herbivores depend on. A no-hunting ban should also be applied in the HCVMA.
 - c. **Throughout the management unit** – Old logging roads or other access roads no longer in use which lead to the saltlick should be sealed off by constructing barriers or ditches. The purpose is to minimise and restrict easy access to the saltlicks.
4. **Threat monitoring** – Saltlicks to be regularly monitored for any signs of poaching activities. Patrolling tools such as the Spatial Monitoring and Reporting Tool (SMART) could be used to monitor and evaluate the management effectiveness of enforcement on the ground within the HCVA and HCVMA of the saltlick. Where applicable, saltlicks can also be monitored with

the help of latest technologies (e.g. live feed camera-traps, closed-circuit television). This is to ensure that actions could be taken immediately if encroachment activities are detected.

5. **Strategic monitoring:** Conduct annual monitoring to assess the effectiveness of the measures in the HCVA and HCVMA and the functionality of the saltlick. Among the proxies are species richness, frequency of visits and relative abundance of the wildlife utilising the saltlick. At minimum, keeping record of species visiting the saltlick from secondary signs such as tracks and dungs in close proximity of the saltlick is also a good monitoring practice. Apart from that, water quality and mineral testing could be carried out once every several years to ensure that the saltlicks are still active, i.e. that they still contain minerals which are readily utilised by herbivores. Experts in such field should be consulted whenever required.

Reference:

- Matsubayashi, H., Lagan, P., Majalap N., Tangah, J., Jum Rafiah, A. S., & Kitayama, K. 2006. Importance of Natural licks for the mammals in Bornean Inland tropical rain forests. Original Article. The Ecological Society of Japan.
- Rayan, M. D., Mohamad, S., Wong, C., Siwan, E. S., Fong, L. C., Hamirul, M. & Mohamed, A. 2013. Conservation status of tigers and their prey in the Belum-Temengor Forest Complex. WWF-Malaysia Report, Petaling Jaya, Malaysia.
- Robbins, G.T. 1993. Wildlife feeding and nutrition. Academic Press, San Diego, California, USA.