

Brief Comments on the new protocol for monitoring of tigers and its habitat sent on July 24, 2005.

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Before I discuss the note by Dr. Jhala et al on the new protocol for monitoring of tiger and its habitat I would like to bring to the notice of the Tiger Task Force some of the serious concerns over total counts derived from pugmarks. There are many examples where it has been confirmed that figures obtained from this method are inaccurate. The recent loss of the entire tiger population in Sariska is one such glaring example. The census figure of 34 tigers + 1 cub in Panna Tiger Reserve is another example: one radio-collared and monitored tigress was counted as thirteen different tigresses and the radio-collared male as seven different males. The limitations, failure and inappropriate application for counting tigers has been pointed out by many of the leading experts in the country (including in the paper under discussion). One major criticism is that this census method is prone to manipulation and numbers are open to being – and often are inflated.

I will not go into detail of the science of the sampling based estimate vs total counts from pug mark here as this has been discussed at length in many publications and Dr. Ullas Karanth had already discussed this in detail during his audio-visual presentation to the Tiger Task Force.

Based on past experience of dealing with inflated numbers of tigers and the failure of this pugmark method to detect even an extinction of entire tiger population, it is time to take radical decisions. If we want to determine the true picture and stop another Sariska from happening in other tiger habitats, then it is of the utmost importance that we must immediately stop using this highly flawed method that aims to count each and every tiger of this country.

I am surprised by this note: contrary to the claims made by the Project Director and his team in public and many forums that this protocol will provide an alternative technique for monitoring the tiger populations, I find very little new in this note prepared for monitoring tiger population and its habitat, except that the information gathered will be put in GIS and the public domain. This latter is a very welcome step of the stage-I.

However the rest of the protocol is full of contradictions and skilfully obfuscates many of issues raised by many wildlife biologists. It lists and recognises a series of problems associated with counting tigers by pugmark method and one of those mentioned is identification of individual tigers. Despite recognising these limitations, it continues to propose estimation of tiger numbers by using pugmark in more obscure means.

This 'new' protocol recognises the problem of inaccurate numbers in the existing method of counting tigers and therefore proposes to address the issue of "reporting the inflated number by laying the emphasis on animal sign instead of numbers". Which is fine in stage-I. But Stage-II is not only all about numbers but it also contradicts earlier statements. Moreover, Stage-II proposes to estimate tiger numbers using pugmark technique and indirect evidences (encounter rate), which the protocol has already found

and stated to be inappropriate for counting tigers. The Stage-II proposes to extrapolate tiger densities estimated from pugmark methods in a few sampled areas for the entire country to arrive at a magic figure. It is an erroneous approach and cannot be accepted because there are many issues that are neither addressed nor explained in any detail in this note. It appears strangely contradictory when it is accepted in the note that the estimates obtained from this indirect means will have high variance and yet it still proposes monitoring in this inappropriate way.

I find it hard to concur with their brusque remark made in the Stage-II, which “basically caters to the number game”. If we continue with this cavalier approach of generating unreliable numbers of tigers in this manner we may find many more Sariskas happening in the near future, although we may still have plenty of tigers on paper to show our “public and politicians”. It is shocking to find this illogical proposal for estimating tiger numbers, especially when the protocol earlier argues that its main purpose has been to address the issue of inflated number game.

Stage-III once again depends on pugmarks and other indirect evidences for identification of individual tigers and monitoring its population in important tiger areas such as tiger reserves. The identification of individual tiger using pugmark has been criticised severely time and again and moreover it is prone to abuse to generate inflated figure. Therefore it must be discarded from the new protocol to eliminate fudging tiger numbers. Instead photographic monitoring which has been in use now for several years in India has evolved into a more efficient, reliable way for monitoring a population not only of tigers but of leopards and other animals which can be identified by their unique body markings. This should become the main monitoring system for the “source population” until such time as other reliable methods are developed such as identification of individual tiger from genetic information obtain from the tiger scats. This intensive monitoring of wildlife populations in important areas must be made open to qualified managers, independent researchers and research organisations that have the expertise and resources for monitoring. Whereas, for rest of the country as suggested in stage-I vast man power and resources of the department can be utilized to gather information on spatial mapping and monitoring of tigers, its prey and habitat.