

Experts: State of emergency facing Sabah's Sumatran rhino

First of a series

Kan Yaw Chong

SABAH'S Sumatran rhino faces almost certain extinction, unless effective action happens quickly to prevent the inevitable, a gathering of top rhino experts in the world warned at the IUCN convened Sumatran rhino Crisis Summit held in the Singapore Zoo between April 1-4.

They cited the crash of wild rhino population to a low 10 from a previous estimate of 40 and high incidence of pathological reproductive systems which dictates the need for the need of strong political will to help tip the scale.

The Indonesian herd faces an equally grave prospect of eventually dying out, as their population has fallen to below 100, much lower than a previous inflated figure of over 200.

"For us, the situation is more than a crisis, it is an emergency," noted Professor Dr Abdul Hamid Ahmad, Chairman of Bornean Rhino Alliance (BORA).

About 100 people from the United States, Africa, India, Indonesia, Cambodia and Malaysia, including some of the most competent rhino experts in the world, attended the Summit.

They included Dr Terri L. Roth, the famous Cincinnati Zoo vet who successfully bred three Sumatran rhinos in captivity, in 124 years.

Reasons for emergency

Reasons for Sabah's sense of dire emergency?

First, the euphoria over the 2011 capture of healthy fertile female Puntung, which raised hope to a crescendo for use in a natural breeding programme to save its ancient kind, crashed when Malaysian and German vets found multiple cysts in her reproductive system.

This effectively rules Puntung out of the ability to conceive or be impregnated artificially nor able to carry a foetus to full term even if it were impregnated, according to Dr Junaidi Payne.

With the help of millions of ringgit provided by Sime Darby, BORA constructed a large fenced forest enclosure in Tabin Wildlife Reserve where they kept Tam and Puntung to promote mating.

But Puntung had steadfastly rejected and refused to mate with Tam which was captured in an oil palm estate in 2008 after it had wandered out of Tabin Wildlife Reserve, according to Payne.

The zero courtship has once again dashed Sabah's original idea to do natural captive breeding between the two by concentrating them in a large forest enclosure in Tabin.

Bad news

More bad news still, there has been no more sign of the Sumatran rhino in the 120,500ha Tabin Wildlife Reserve since Puntung's capture.

However, Datuk Dr Laurentius Ambu, Director of Sabah Wildlife Department, said his department will comb across the entire Tabin range soon to verify the grim report.

The Berjaya Government created the Tabin Wildlife Reserve in 1984 primarily because it believed the reserve had about 20 Sumatran rhinos by a 1989-foot print survey, according to a senior officer at the Ministry of Culture, Tourism and Environment.

Given the absence of rhino in Tabin, Junaidi said his guess is Sabah's wild rhino population has dwindled to a very low 10, mainly in Danum Valley but their breeding status is not clear.

However, rhino reproduction experts say they won't be surprised if the remaining females in the



Prof Thomas Hidebrandt



From Africa: Character counts



Dr Payne



Dr Hamid

wild are similarly afflicted by pathological reproductive systems like Puntung.

Dr Shaefer on the prevalence of cysts

But what accounts for what looks like a widespread affliction of cysts in female Sumatran rhinos's reproductive systems which is destroying dreams of saving the species?

"In the wild, Sumatran rhinos are pregnant most of the time, so they are always under progesterone, a hormone secreted by the female reproductive system that functions to regulate the condition of the inner lining of the uterus," Dr Nan Schaefer, a rhino reproduction physiologist who specializes on reproductive problems.

"If they are not in the wild and they are in captivity and they are not pregnant, then they are always under estrogen and estrogen is one of the stimulus or triggers to these tumors (which interfere with fertility). So if they are not pregnant, there is so much estrogen to stimulate these tumors," Dr Schaefer explains.

So in captivity where they are all by themselves, alone, isolated, they tend to develop cysts or tumors in the reproduc-

This insight from Dr Schaefer explains why our Sumatran rhinos, now isolated by deforestation and fragmentation of forests at the hands of man, live like loners, where cysts and tumors eventually destroy their females' capacity to reproduce and slowly die of extinction.

Untimely extinction at the hands of man

In his speech at the Summit welcome dinner, Dr Laurentius sounded his ominous warning that the Sumatran Rhino may also be "meeting their untimely death at the hands of man", following the footsteps of other species such as the Western Black Rhino but a concerted global effort can save the day, he balanced the grim note.

Warning: All wild individuals may die of old age

Top guns in BORA now believe the small band of rhino loners left in the wild, including the much touted Danum Valley, is no insurance for survival of the species, given a count on the low 10 side.

"The only good thing I could think of is when one gets to this stage that even governments are forced to confront this with drastic action of having to catch more rhinos, including Danum Valley," noted Dr Payne, citing a recent Sabah State policy agreement that all rhinos in the wild, including Danum Valley are to be caught and be consolidated and it's basically a belief that if you leave them in the wild, the chances are very high that they will die of old age. But if you bring them into captivity, you have a chance to do whatever technique. You can try artificial insemination, you can bring one or two fertile individuals together in the same place," Payne said.

"Given Sabah is left with only one wild population in Danum Valley, that's the way to go in Sabah, and I should emphasize that's the feeling shared by the Sabah Wildlife Department, the Forestry Department and Yayasan Sabah," Payne said.

"Indonesia may not be so drastic, they do have three wild populations with signs of breeding, so they may want to put more emphasis of breeding wild populations there," Payne noted.

SOS Rhino: Crisis has reached a 'tipping point'
The crisis and emergency has reached what SOS



Dr Terri L. Roth, the world's most famous vet behind the breeding of four Sumatran rhinos in captivity—three at Cincinnati Zoo, and one at Way Kampas National Park, Indonesia, attended the Summit. Here, she admires the fourth baby she helped sire—a very hairy Andatu, in Way Kampas



The Indonesian Embassy feted the 100 Summit participants to a sumptuous dinner



Group discussion
Dr Dedi,
Dr Goosen,
Dr Zaimal,
Dr Waidi
and Prof
Thomas
listen to
South
African
rhino
expert.

Rhino Chairman, Karen Dixon called a 'tipping point' which gripped participants with desperate fear of irreversible extinction, which prompted a historic agreement to treat the Sumatran rhinos of Indonesia and Malaysia as a one single global population.

Needed: The most competent institutions and keen people

All countries agreed to a free flow of animals and genetic materials to whoever and whatever agencies that have the best bet to the breed and save the species. "So, yes, a few institutions and very competent, keen people are what is needed," Dr Junaidi Payne said.

Cincinnati Zoo and IZW, Berlin going to be key players in Sabah!

Key players are going to be Cincinnati Zoo which has successfully bred the Sumatran rhino so they obviously have a role to play. And I also mention the Leibniz Institute of Zoo and Wildlife Research, Berlin. Although they do not have rhinos under their care, I would say the Institute is one of the top if not the top institution in the world that specialises in problems and issues of large mammals, specifically rhinos and elephants. So they are sort of the seat of cutting edge technology and ideas of how to boost reproduction of rhinos and elephants and of course, the Sumatran

rhino species is what we are concerned about," Payne said.

The German experts have offered their best science to harvest Puntung's eggs, or the eggs of any cyst afflicted female rhinos in Sabah, freeze them for future artificial breeding, even the possibility of test tube Sumatran rhino babies!

The summit had agreed that natural breeding and assisted breeding should move in parallel.

First choice: Proven natural breeding successes

However, natural breeding with already proven successes should still lead the charge whenever healthy animals are found as assisted breeding still has its limits, says Dr Schaefer.

All agreed that the focus should fall on reproducing more Sumatran rhino babies, whatever method helps best to avert extinction of the species.

The shock global population crash down to less than 100 prompted this unprecedented unity of purpose.

The specter of extinction jolted not only Sabah but sobered the Indonesians as well. For the first time in history all agreed to barrier-free collaboration.

Sabah willing to send Tam away?

For instance, Datuk Dr Laurentius, Director of Sabah Wildlife Department, drew cheers when he agreed to send either Tam's semen overseas for artificial insemination or even Tam itself for captive breeding, wherever has the best prospect of success.

Still, the experts spent long sessions fretting over nagging worries whether any body can raise the political will in the two range countries – Indonesia and Sabah, to a level of intensity that is strong enough to reverse the fate of the Sumatran rhino.

Summit: Political will absolutely critical

"Political will is absolutely critical," said one Australian delegate.

In fact, speaker after speaker from Africa and India said they succeeded in reversing the Black, White and Indian rhinos from the brink of extinction because of effective and committed political will, because there are already proven prescriptions to do the job.

Dr. Terri Roth, the only expert who had succeeded in breeding of the Sumatran rhino captivity in 124 years, summed up the guarded optimism: "I still want to see the follow up!"

The organising partners of the summit include Wildlife Reserve Singapore, WWF, Yayasan Sime Darby, FFI, LEAP, BORA, International Rhino Foundation, Wildlife Conservation Society, Taman Safari Indonesia, Leuser International Foundation.



SOS Rhino Chairman Karen Dixon: We are at a 'Tipping Point'.



Briefing session.