



# **Last Chance to Save Bukit Tigapuluh**

**Sumatran tigers, elephants, orangutans and indigenous tribes  
face local extinction, along with forest**



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**Cover photo:** Tropical forest in Bukit Tigapuluh landscape in concession of PT Artelindo is being destroyed;  
GPS location 101° 52' 18.56" E; 0° 46' 55.67" S.

## Profiles

**KKI WARSI** was established in January 1992 and has a vision of “Conservation with Community” to achieve sustainable development that can accommodate human needs without threatening the future of the next generation. KKI WARSI has been conducting conservation projects in Jambi, South Sumatra, West Sumatra, Bengkulu and Riau Provinces at four national parks and other protected natural forest areas. KKI WARSI has been working at Bukit Tigapuluh National Park since 2005 to expand the National Park and protection its wider ecosystem.

<http://www.warsi.or.id/>

**Frankfurt Zoological Society (FZS)** is a non-governmental/non-profit conservation organization established in 1858. Headquartered in Frankfurt/Main, Germany, FZS supports about 67 projects in 25 countries, financed through membership fees, private donations and bequests as well as investment returns from the “Help for Threatened Wildlife” Foundation. FZS’ commitment in Indonesia started in 1973 with the orangutan rehabilitation centre in Bohorok/North Sumatra. FZS Indonesia Program works in Bukit Tigapuluh since 1998.

<http://www.zgf.de>

**Eyes on the Forest (EoF)** is a coalition of 23 environmental and social NGOs in Riau, Sumatra, including two NGO umbrellas, Friends of the Earth Riau and Jikalahari "Riau Forest Rescue Network," and WWF-Indonesia, Riau Program. EoF has been monitoring the status of the remaining natural forests in Sumatra's Province of Riau and disseminating the information worldwide since 2005.

<http://www.eyesontheforest.or.id>

**WWF-Indonesia** is an Indonesian foundation, part of the WWF global organization, acting locally through a network of over 90 offices in over 40 countries around the world, with on-the-ground conservation projects in more than 100 countries to stop the degradation of the planet’s natural environment and to build a future in which humans live in harmony with nature. Headquartered in Jakarta, WWF-Indonesia has 25 field offices working for conservation in 17 provinces across Indonesia, including Riau Province.

[www.wwf.or.id](http://www.wwf.or.id)

# 1. Executive Summary

Bukit Tigapuluh – or “Thirty Hills” – is one of the last examples of the kind of landscapes that earned Indonesia the nickname “Emerald of the Equator”: dense canopy, lush rainforests of unbelievable biodiversity and rolling hills. Two tribes of forest-dwelling indigenous people live here. It is one of the few remaining areas in Sumatra that still host three of the island’s four endemic flagship species: the endangered Sumatran elephant and the critically endangered Sumatran tiger and orangutan, along with many other plant and animal species found nowhere else on Earth. It is a good example of a landscape considered to be a High Conservation Value Area.

A quarter century ago, the area’s natural forest was connected to other forests on the island. Now Bukit Tigapuluh’s close to 320,000 hectares of natural forest are isolated, surrounded by plantations and deforested lands. But they form the island’s largest remaining concentration of low lying forest blocks on non-peat soil, representing a critically endangered “eco-floristic sector”.

Around 30 tigers are estimated to survive here, nearly 10 percent of the population of critically endangered Sumatran tigers left in the wild. Its importance to the long-term survival of the species led a team of world-renowned tiger scientists to declare the Bukit Tigapuluh landscape a “Global Priority Tiger Conservation Landscape” – one of just 20 in the world – in 2006. In November 2010, the Indonesian government pledged at a global tiger summit to make the landscape one of its focal areas for tiger conservation. The tigers here share this habitat with more than 150 Sumatran elephants and 130 orangutans, survivors of the illegal pet trade that were released here, part of the only successful reintroduction program for Sumatran orangutans.

For nearly 30 years, the Government of Indonesia and conservation organizations have made attempts to preserve the landscape. However, today, only 42 percent (134,834 hectares) of the remaining forest – in the steepest, most hilly area – is under protection as Bukit Tigapuluh National Park. Despite high-level political commitments, a large portion of the remaining forest outside the park, mostly covering the flat low lying areas, is under immediate threat of large-scale commercial conversion for pulp and paper production, much of it by Asia Pulp & Paper of the Sinar Mas Group (APP/SMG) and its wood suppliers and affiliated concession holders.

Threatening more than half of the remaining unprotected forest – close to 97,000 hectares – APP/SMG could become the single biggest destroyer of natural forest in Bukit Tigapuluh. Like the pulp and paper industry, the tigers, elephants and orangutans prefer the flatlands to the hills, putting them in the direct path of the bulldozers that come to clear the forest. The ones that survive are subsequently threatened by conflict with the plantation workers, illegal encroachers and poachers who follow, once easy access is provided by logging roads.

APP/SMG has launched a global publicity offensive to counter criticism about its destruction of Indonesia’s natural forests. The company claims to no longer source pulpwood from natural forests. But by 2010, close to 60% of the remaining unprotected forest in the Bukit Tigapuluh landscape was feared to be in direct line of APP/SMG bulldozers ready to supply the company’s pulp mills.

This study reveals how APP/SMG-affiliated companies have systematically sought out inactive selective logging concessions covered by dense natural forests of High Conservation Values in Bukit Tigapuluh. The companies then obtained government licenses which switched the concessions’ status to industrial timber plantation allowing for clear cutting and replacing the forest with commercial mono-cultures. Since 2004, APP-affiliated companies acquired licenses to operate a total of almost 129,000 hectares. Close to 75,000 hectares had been covered by natural forest when the licenses were issued. By 2010, more than 60,000 hectares of these good forests were lost (an 81 percent loss) without appropriate professional assessments or stakeholder consultation. In some cases, the licenses have been issued under legally questionable circumstances.

This study reveals how APP/SMG-affiliated companies built a new and likely illegal logging and wood transport highway that cuts the Bukit Tigapuluh Landscape in half. It was constructed through High

Conservation Value Forests without an environmental impact assessment. It has been rapidly damaging the landscape by giving access to illegal encroachers who otherwise could not have reached these forests.

This study reveals how the tiny Taman Raja Nature Reserve much advertised by APP/SMG as one of its conservation initiatives does not add conservation gains as most of the forests were protected anyway and many should have never been cut by the company. Highlighting the Taman Raja Nature Reserve apparently is aimed at deflecting attention from APP/SMG's large scale deforestation actions and plans in the Bukit Tigapuluh landscape.

Despite recent and repeated calls on APP to stop pulping High Conservation Value Forests in the PT. Artelindo Wiratama and PT. Tebo Multiagro Corporation concessions, the two affiliates continued to clear close to 14,000 hectares of natural forest, 8 percent of the remaining unprotected forest in the Bukit Tigapuluh area in 2010.

An additional 82,000 hectares of natural forest, 48 percent of the remaining unprotected forest in the Bukit Tigapuluh area in 2010, could be cleared in concessions of two companies - PT. Rimba Hutani Mas of the Sinar Mas Group and PT. Lestari Asri Jaya of the Barito Pacific Group - to supply APP/SMG's pulp mills. These concessions contain dense canopy rain forest, and are home to a Sumatran elephant population, as well as Sumatran tigers and reintroduced orangutans.

WWF's historical analysis of Sumatra's natural forest, biodiversity and carbon values between 1985 and 2009 identified some of the Bukit Tigapuluh natural forest remaining in 2008-09 as No. 1 conservation priority for non-peat forests in Sumatra. Most of this forest lies outside the national park. The analysis also identified some of the already-deforested areas as No. 1 restoration priority for Sumatran non-peat soil areas.

It is urgent that as much of the remaining natural forest in the landscape as possible is protected either by inclusion into the national park or by operation as Ecosystem Restoration Concessions under a REDD+ scheme; and that no more licenses are issued for natural forest conversion.

It is proposed that the Government of Indonesia applies the moratorium on natural forest and peat conversion that it committed to in its climate partnership with Norway to all existing concessions surrounding Bukit Tigapuluh National Park.

## 2. Introduction to a disappearing landscape

The Bukit Tigapuluh landscape in Central Sumatra, spread across the provinces of Riau and Jambi, is an area of High Conservation Values<sup>1</sup> (Chapter 3). The landscape of rolling hills centered by the steep slopes of Bukit Tigapuluh National Park has very high levels of floral and faunal diversity. Named by tiger experts as a “Global Priority Tiger Conservation Landscape” – one of just 20 worldwide deemed critical to ensuring a future for the species – it is also the world’s only successful reintroduction site for Sumatran orangutans. And it is home to a large wild Sumatran elephant population and two tribes of forest-dwelling indigenous people: the Talang Mamak and Suku Anak Dalam (also called Orang Rimba). The Bukit Tigapuluh landscape comprises the largest concentration of low lying forest blocks on dry soils in Sumatra, with important environmental services, high carbon stocks even in the logged-over areas, and natural resources that are critical to the survival of its indigenous tribes and local communities.

The High Conservation Values (HCVs) of Bukit Tigapuluh have been well recognized and the Indonesian government and NGOs have been trying to protect this unique ecosystem for almost 30 years (Chapter 4). Recently, there has been an increasing number of strong political commitments that, if implemented, could lead to the protection and restoration of natural forests in Bukit Tigapuluh.

### **Protection and restoration of HCVs and High Conservation Value Areas:**

- In 2007, the Ministry of Forestry published its conservation strategies and plans for the Sumatran tiger, elephant and orangutan,<sup>2</sup> for which protection and restoration of habitat like Bukit Tigapuluh is crucial.
- In 2008, the then-Jambi and Riau governors, supported by four central government ministries including the Ministry of Forestry, made a strong commitment at the IUCN World Conservation Congress to protect and restore HCVAs in Sumatra<sup>3</sup>. Bukit Tigapuluh is a key HCVA.
- In 2010, as a follow-up to the 2008 commitment, Indonesian Government has announced Sumatra Vision 2020 and chosen Riau and Jambi as a part of the “RIMBA landscape,” including Bukit Tigapuluh, to demonstrate sustainable development based on a low-carbon economy.
- In November 2010, the Government of Indonesia declared at the International Tiger Conservation Forum in St. Petersburg, Russia, that the country would focus its tiger conservation efforts in six priority areas, including Bukit Tigapuluh<sup>4</sup>.

### **Reduction of carbon emissions from deforestation:**

- In 2007, the current Riau governor called for “avoidance of deforestation and forest degradation” at the Bali UNFCCC COP<sup>5</sup>.
- In September 2009, the Government of Indonesia committed to an “emissions reduction target of 26% from business as usual by 2020, and this can be increased to 41% with enhanced international assistance.”<sup>6</sup>
- In February 2010, the then-Jambi governor committed to making a significant contribution to the national target by restoring the province’s ecosystems and conserving and managing its second-growth natural forest<sup>7</sup>.
- On 26 May 2010, Indonesia and Norway signed a Letter of Intent to form a partnership “to contribute to significant reductions in greenhouse gas emissions from deforestation, forest degradation and peatland conversion.”<sup>8</sup> Norway committed to support these efforts with \$1 billion US.
- In November 2010, the Governments of Jambi and Riau requested to become REDD+ pilot provinces under the Indonesia – Norway partnership.

Despite these high-level political commitments, the natural forest, wildlife and indigenous people of Bukit Tigapuluh continue to be threatened. The pulp and paper industry, dominated by Asia Pulp & Paper / Sinar Mas Group (APP/SMG), is systematically targeting this landscape, acquiring of ever more concessions, clearing them of natural forest, and constructing logging roads through its natural forests to transport the wood to its mills. APP/SMG’s activities inflict damage on people and wildlife and some are legally questionable (Chapter 5, 6 and 7). The company’s road building is leading to increasing illegal encroachment which has now reached the national park.

KKI Warsi, Frankfurt Zoological Society, Eyes on the Forest and WWF-Indonesia have been working for conservation of biodiversity and in support of indigenous and local communities in Bukit Tigapuluh since the

1990s. The NGOs wrote this report to provide the Indonesian government and its climate and biodiversity conservation partners, APP/SMG and its main competitor APRIL/RGM, paper buyers and investors around the world, and the general public an update on the status quo of the conservation value of Bukit Tigapuluh and stimulate discussions towards a consensus on the protection and restoration of its natural forests.

Due to the global significance of the area, the NGOs' calls for help have reached around the world. Close to 10,000 people around the world have signed a global petition<sup>9</sup> asking APP/SMG to stop clearance of forest in Bukit Tigapuluh immediately. International conservation bodies, including the Australian Orangutan Project<sup>10</sup>, Perth Zoo<sup>11</sup>, AOP/Australia Zoo/Auckland Zoo/Dreamworld/Zoos SA/HIS<sup>12, 13</sup>, GRASP Australia<sup>14</sup>, IUCN Species Survival Commission<sup>15, 16</sup>, IUCN Primate Specialist Group<sup>17</sup>, World Association of Zoos and Aquaria<sup>18</sup> sent letters to APP/SMG and/or the Ministry of Forestry in 2009 to ask for an immediate halt to the clearance of Bukit Tigapuluh's forests.

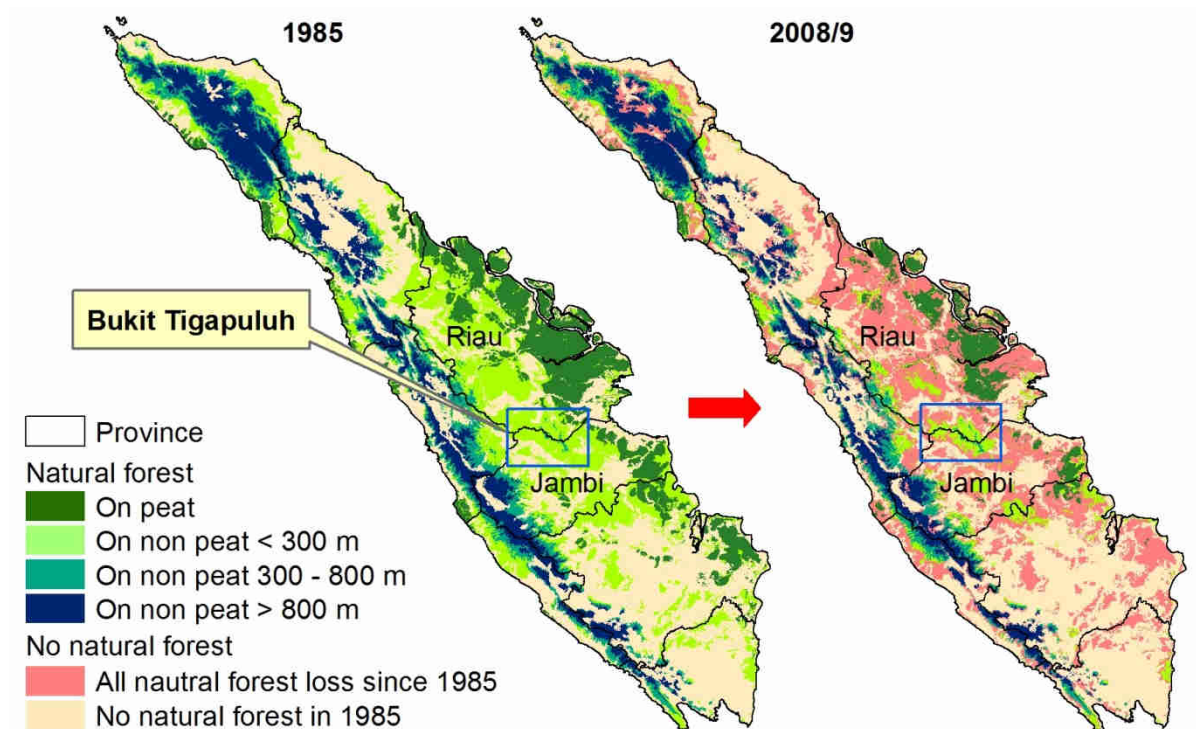
However, this report shows that the pulp & paper industry's threat to Bukit Tigapuluh's forests and its conservation and carbon values continues to increase.

It is of the highest urgency that all stakeholders work together to implement their commitments to save Bukit Tigapuluh's (Chapter 9). If we delay any further, this globally significant biodiversity gem will be gone.



### 3. Conservation and carbon values

The Bukit Tigapuluh landscape in Central Sumatra, spreading across Riau and Jambi provinces (Map 1), is a good example of a landscape that is considered a High Conservation Value Area (HCVA). The landscape represents Sumatra's largest concentration of remaining blocks of low lying forest on non-peat soil, close to 320,000 hectares in 2010. The area's natural forest was connected to other forests on the island in 1985 (left map), but by 2008-09 had become isolated (right map).



**Map 1 – The Bukit Tigapuluh landscape on Sumatra island and natural forest in 1985 and 2008/9 distinguished by soil type (peat or non-peat) and elevation.**

Of the natural forest remaining in 2010, only 42 percent (134,834 hectares) were protected inside Bukit Tigapuluh National Park and an additional 5 percent (15,313 hectares) were protected inside the Bukit Sosah- Bukit Limau-Bukit Batabuh Protection Forest. A large portion of the forest remaining outside the park, mostly that on the flat lowlands, is under immediate danger of large-scale commercial conversion for pulp & paper production (Chapters 5–8) as well as small-scale, often illegal conversion, for palm oil and rubber production by individuals and small-holders.

#### 3.1. Fauna diversity

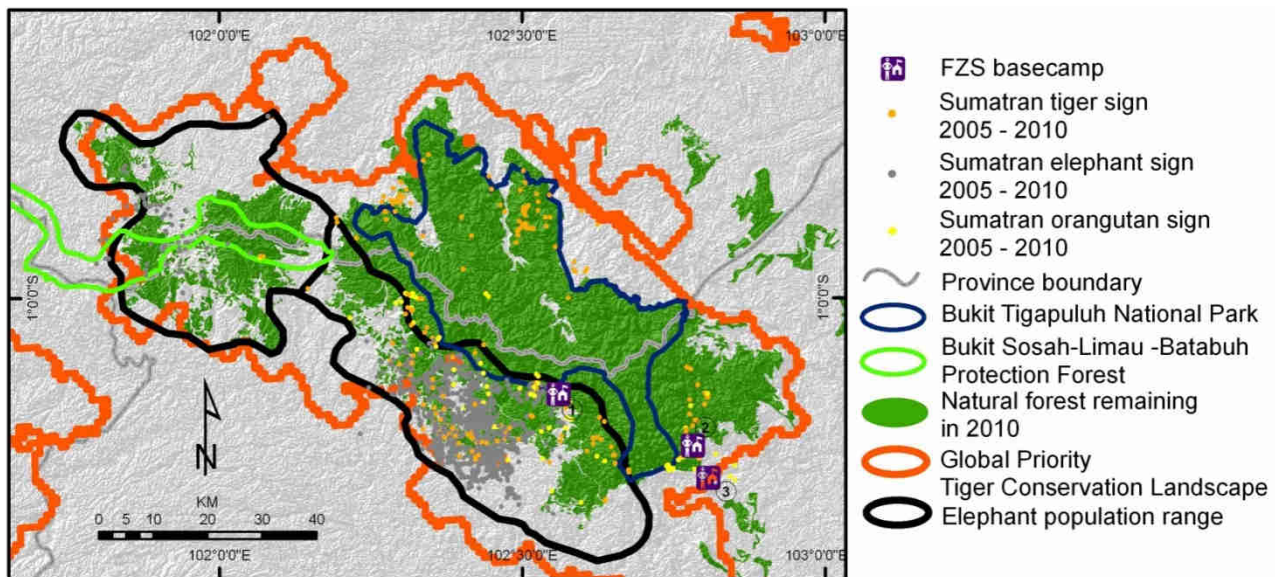


Sumatran tiger (© WWF-Indonesia), Sumatran elephant (© WWF-Indonesia), Sumatran orangutan (© FZS).

Bukit Tigapuluh is one of the few remaining natural forest areas in Sumatra today that still host three of the island's four endemic flagship species: the endangered Sumatran elephant and the critically endangered



Sumatran tiger and orangutan<sup>19</sup>. The wider Bukit Tigapuluh landscape is one of just 20 Global Priority Tiger Conservation Landscapes in the world, identified by the world's tiger experts as critical for the survival of the species<sup>20</sup> (orange boundary in Map 2). Around 30 tigers are estimated<sup>21</sup> to share this habitat with more than 150 Sumatran elephants<sup>22</sup> and 130 reintroduced Sumatran orangutans, with nine more waiting to be released<sup>23</sup>. All three species prefer to live in the lowland rainforest outside the national park, forests in urgent need protection and restoration (Map 2).



**Map 2 - Species signs in Bukit Tigapuluh 2005-2010, Global Priority Tiger Conservation Landscape boundary and natural forest cover 2010.**

FZS, in collaboration with the Ministry of Forestry, has been running the world's only successful reintroduction program for Sumatran orangutans in Bukit Tigapuluh since 2002.<sup>24</sup> These orangutans, often rescued from the illegal pet trade, are rehabilitated and prepared for life in the wild before their release into the Bukit Tigapuluh forests. The program operates three field camps: 1) the Sumatran Orangutan Reintroduction Center, 2) the Open Orangutan Sanctuary and 3) the joint FZS & Tanjung Jabung Barat Regency Forestry Office Forest Protection Base Camp (Map 2).

A population model simulation conducted by the IUCN Captive Breeding Specialist Group estimated that between 250 and 500 orangutans should be reintroduced to ensure the sustainability of the population over a period of 1,000 years, with the assumption that there is no human disturbance such as poaching or habitat destruction<sup>25</sup>. Today, Bukit Tigapuluh is the home of the only sustainable orangutan reintroduction project in Indonesia that could potentially accommodate more than 1,000 orangutans<sup>26</sup>. The majority of orangutans released at the boundaries of Bukit Tigapuluh National Park chose to live in the fruit-rich lowland forests outside the national park<sup>27</sup>. A recent study of orangutan habitat in slightly logged natural forest demonstrates that sustainable logging techniques in natural forest can maintain habitat quality for orangutan populations<sup>28</sup>. The national action plan for the orangutan conservation<sup>29</sup> states that all remaining natural forest needs to be conserved as orangutan habitat and that all types of forest can host orangutan reintroduction projects except industrial forest plantations.

The natural forests inside the national park because of their rugged terrain and steep slopes are largely avoided by elephants. They also prefer the flatter, low lying forests outside the park. About 150 endangered Sumatran elephants live here in two population ranges (black boundaries in Map 2)<sup>30</sup>, both considered essential elephant conservation units in Central Sumatra<sup>31</sup>.

The same lowland forest has been identified as important habitat for the dwindling Sumatran tiger population. A study conducted by ZSL in 2007<sup>32</sup> demonstrates the high density of tiger prey in the forests adjacent to the national park and its importance as tiger habitat. The national action plan for tiger conservation in 2007<sup>33</sup> declared the Bukit Tigapuluh landscape to be one of the top priority areas for tiger conservation in Sumatra and therefore an area of national conservation priority. At the 2010 International Tiger Conservation Forum in St. Petersburg, a first-ever summit of world leaders focused on saving the tiger, the Government of

Indonesia declared that it would focus conservation efforts in six priority areas, including Bukit Tigapuluh<sup>34</sup>.

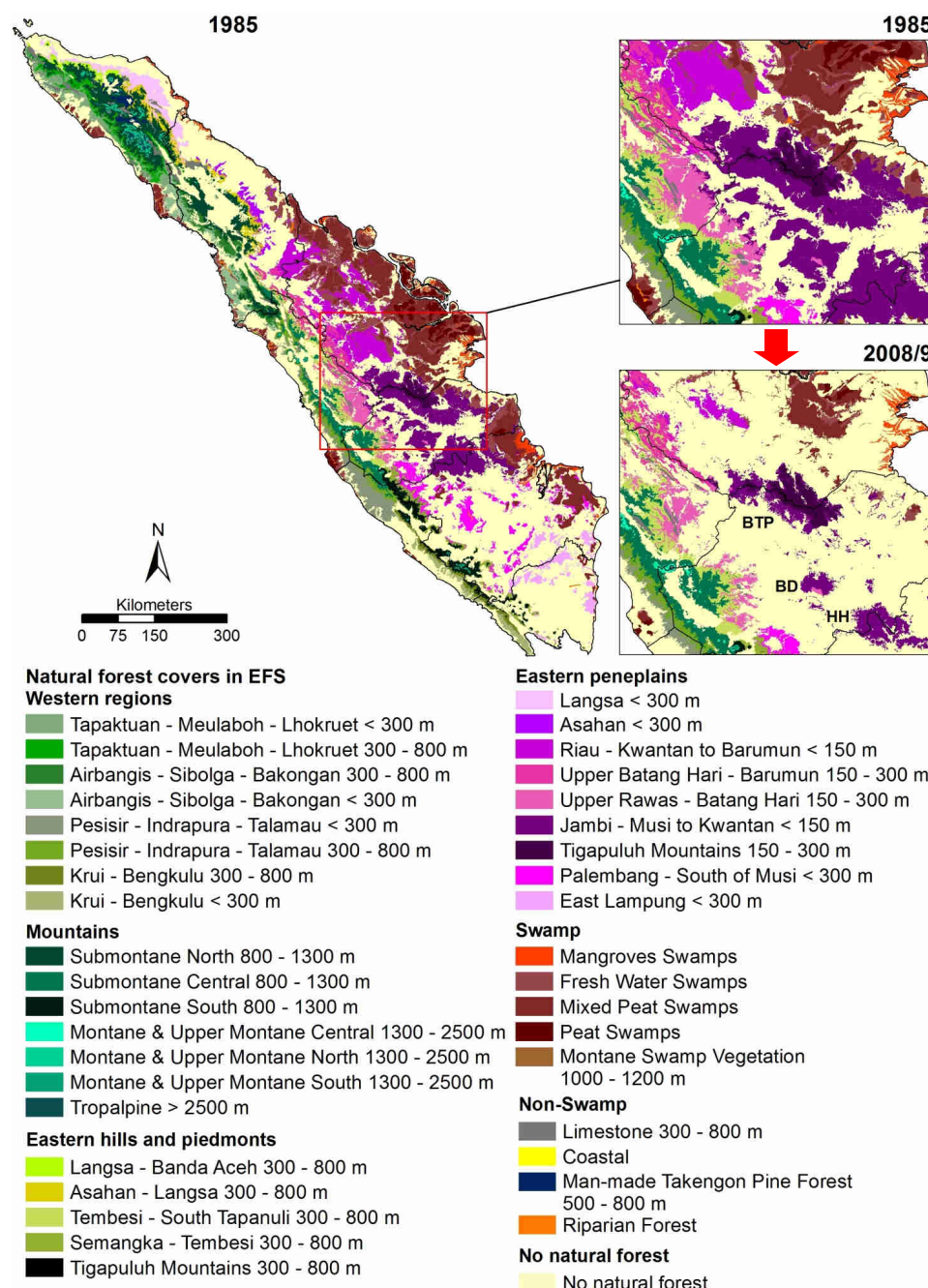
Bukit Tigapuluh is also home to at least 80 species of mammals, 193 species of birds (one-third of Sumatra's bird species), 4 species of reptiles and 98 species of fish<sup>35, 36, 37, 38</sup>.

### 3.2. Flora diversity

Bukit Tigapuluh is one of Indonesia's natural jewels in terms of its unique forest type. The tropical lowland forest surrounding the national park belongs to one of 38 unique ecosystems distinguished in Sumatra, called "Jambi -- Musi to Kwantan <150 m Eco-Floristic Sector"<sup>39</sup>, today considered critically endangered, having lost 78 percent of its 1985 natural forest cover<sup>40</sup> (Map 3). Less than 550,000 hectares of natural forest remain of this eco-floristic sector in Sumatra, mainly as three fragmented blocks: around the Bukit Tigapuluh National Park (BTP in Map 3), in and around Bukit Duabelas National Park (BD in Map 3) in Jambi and in what is known as "Hutan Harapan" in Jambi and South Sumatra (HH in Map 3).

Bukit Tigapuluh also has high plant biodiversity: more than 1,500 types of flora have been recorded within the national park alone and most of them produce timber, resin, bark, fruits and medicine<sup>41</sup>. A biomedical

expedition in 1988 by the Indonesian Institute of Sciences (LIPI), in cooperation with the Ministry of Health, recorded the use of the flora diversity by the indigenous communities in and around the national park for medicinal purposes. The Talang Mamak tribe used 110 species to treat 56 kinds of diseases, and 22 mushroom species to treat 18 kinds of diseases. The Melayu or Malay tribe used 182 species to treat 45 diseases and eight mushroom species to treat eight diseases.



**Map 3 – Eco-floristic sectors (EFS) in and around the Bukit Tigapuluh landscape, 1985 and 2008/9.**



### 3.3. Environmental and carbon values

Bukit Tigapuluh landscape's natural forest sits upstream of rivers in the Batanghari and Pengabuan watersheds in Jambi Province and the Indragiri and Reteh watersheds in Riau Province. These natural forests provide basic environmental services of watershed protection and erosion control. In 1988, the Ministry of Transmigration, using the Regional Physical Planning Project for Transmigration supported by DFID as an instrument, classified 256,284 hectares as a protection area for terrain protection (Map 5).

The around 320,000 hectares of natural forest in this landscape could contain 53 megatons of carbon, using Intergovernmental Panel on Climate Change (IPCC)<sup>42, 43</sup> default values of an average 350 tons of above-ground biomass per hectare for tropical rain forests in Asia and its suggested 47% carbon contained in that above-ground biomass for our calculations.

Many of the landscape's carbon stocks are in danger of being released. Until 1995, almost all of the unprotected natural forest surrounding the national park lay inside several selective logging concessions that offered protection from deforestation though not forest degradation. Since then, many were switched into industrial timber plantation (HTI) concessions, allowing them to be deforested (Chapter 5-8). The biggest concession of around 300,000 hectares, formerly owned by PT. Industries et Forest Asiatique (PT. IFA), was split into several HTI conversion concessions. Some have already been mostly deforested others are being prepared for clearing (Chapters 5-8). Two additional inactive selective logging concessions – ex PT. Dalek Hutani Esa and ex PT. Hatma Hutani –are in the process of being converted to industrial timber plantation concessions (Chapters 5-8).

A 2005 field study by KKI Warsi and the Bogor Agricultural University (IPB) concluded that the standing timber volume of many of the “logged-over” natural forests surveyed in the ex PT. IFA concession area was not significantly different from its primary status in 1991; therefore, it would be inappropriate to convert these “logged-over forests” into plantations for legal and conservation reasons.<sup>44</sup> Even when the natural forest's standing timber volume has been depleted from its primary state due to legal and illegal selective logging, it would make more sense to restore them since their potential to sequester carbon is very high.



**Good natural forest in the former PT. Dalek Hutani Esa selective logging concession seen from the FZS Sumatran Orangutan Reintroduction Center. APP's sister company, PT. Rimba Hutani Mas of the Sinar Mas Group, has been trying to convert this natural forest. © Norbert Guthier, 2008. GPS location 102° 34' 38" E 01° 09' 51" S.**

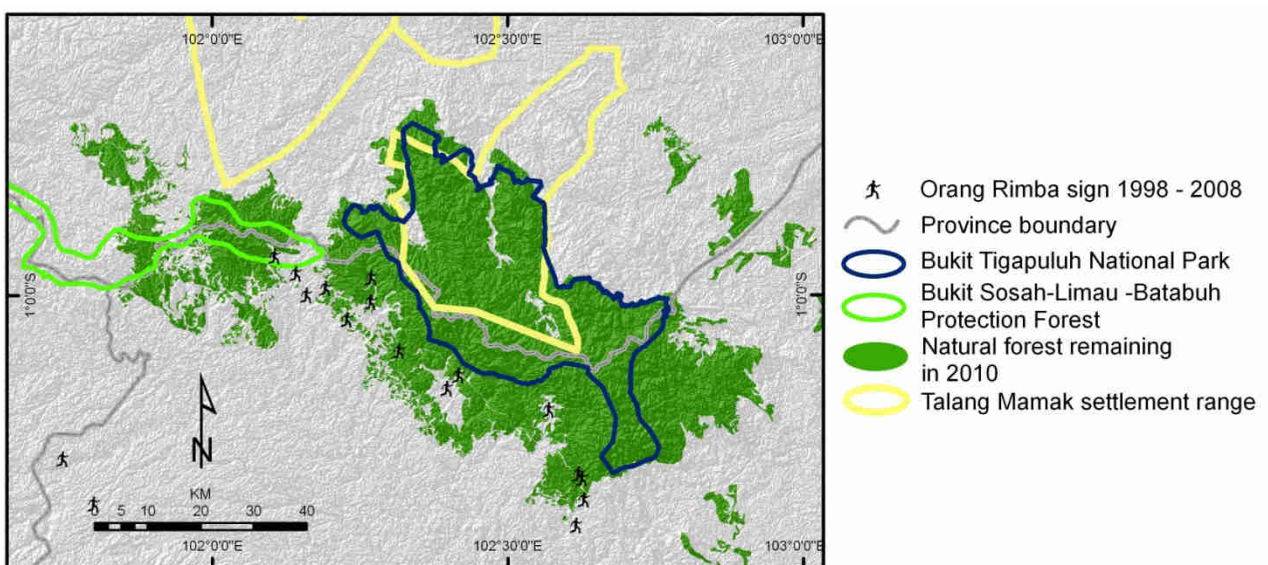


The main logging corridor road of APP/SMG through good natural forest inside the former PT. IFA selective logging concession, current PT. Lestari Asri Jaya industrial timber plantation (HTI) concession Blok IV on 26 April 2010. © Heriyadi Asyari/Doc. KKI WARSI.

### 3.4. Social values

#### Native Families

Two indigenous tribes -- the Talang Mamak and Suku Anak Dalam (also called Orang Rimba) – call Bukit Tigapuluh home (Map 4). The two tribes live primarily in Jambi Province.



**Map 4** – Distribution of Orang Rimba and Talang Mamak in Bukit Tigapuluh.

The Talang Mamak are a sedentary tribe who live only in the Bukit Tigapuluh landscape. The Orang Rimba are nomadic and dependent on forest resources. The Orang Rimbans' survival in particular is endangered by



logging, which is clearing Sumatra on a scale unseen almost anywhere else in the world.

The population of Orang Rimba in the Bukit Tigapuluh ecosystem numbers 551 people, divided into 15 groups scattered in the “production forests” to the south of the national park, namely in the concession areas of former PT. IFA and former PT. Dalek Hutani Esa<sup>45</sup>.

The Orang Rimba people have inhabited the jungles of Sumatra for centuries, traveling in tight-knit family groups in the forests, hunting, fishing and collecting non-timber forest products on their traditional lands. Members of this indigenous tribe occasionally trade goods with villages on the edge of the forest, but prefer to keep to themselves. Now, as Sumatra’s forests disappear, keeping to themselves is becoming impossible.

Experts who have studied the culture of the Orang Rimba, which literally means “forest people,” estimate that there are perhaps 3,000-4,000 individuals. Orang Rimba families have become marginalized wherever their forest was opened, easily infected by new diseases and extraordinarily poor without forests to hunt and gather in.

Distribution and migration of Orang Rimba community usually follow the availability of forest resources, either hunting and gathering or searching for non-timber forest products, such as sap jernang, which is well-known in China as dragon's blood (*Daemonorops draco*), rattan/manau, gum resin and herbs.

When there is death in an Orang Rimba family, they will “belangun” or move to another place far away. Belangun is also an Orang Rimba mechanism to avoid conflict, social attachment to a particular group, the outbreak of disease, or the diminishing results from the field. This residential mobility makes it difficult for the tribe to integrate into the system of village administration.

A survey by the Frankfurt Zoological Society in 2009 found 42 Talang Mamak families (with 165 individuals) living inside the concession of APP/SMG affiliate PT. Rimba Hutani Mas (the former selective logging concession of PT. Dalek Hutani Esa), which is adjacent to PT. Lestari Asri Jaya.<sup>46</sup>

The Talang Mamak population as a whole is estimated to be around 1,500 families or 8,000 people<sup>47</sup>. Although they are a hunting and gathering society, the Talang Mamak tribe’s position is relatively stable. The Talang Mamak tribe lives exclusively in four districts in Jambi and Riau provinces.

The general farming activity by native local communities is rubber production. Mixed rubber plantations or “jungle rubber” can be good habitat for endangered species like the elephant, tiger or orangutan.

In April 2010, Warsi organized a workshop on Orang Rimba and local communities in Jambi and deforestation in Jambi. In his speech, Presidential Advisor Emil Salim called for protection of the forest in Bukit Tigapuluh, Bukit Duabelas and Kerinci Seblat to benefit people’s livelihoods, the environment and the world’s climate, which is affected by the massive amounts of carbon released as the forests are cleared.

### **Non-native communities**

The increasingly easy access to the Bukit Tigapuluh landscape through logging roads has encouraged large numbers of non-indigenous immigrants to move in and establish settlements. They are attracted by the affordability of plantation land. Immigrants with adequate financial capital opt to convert forest to oil palm plantations, in contrast to the much more environmentally friendly jungle rubber plantations of native communities.

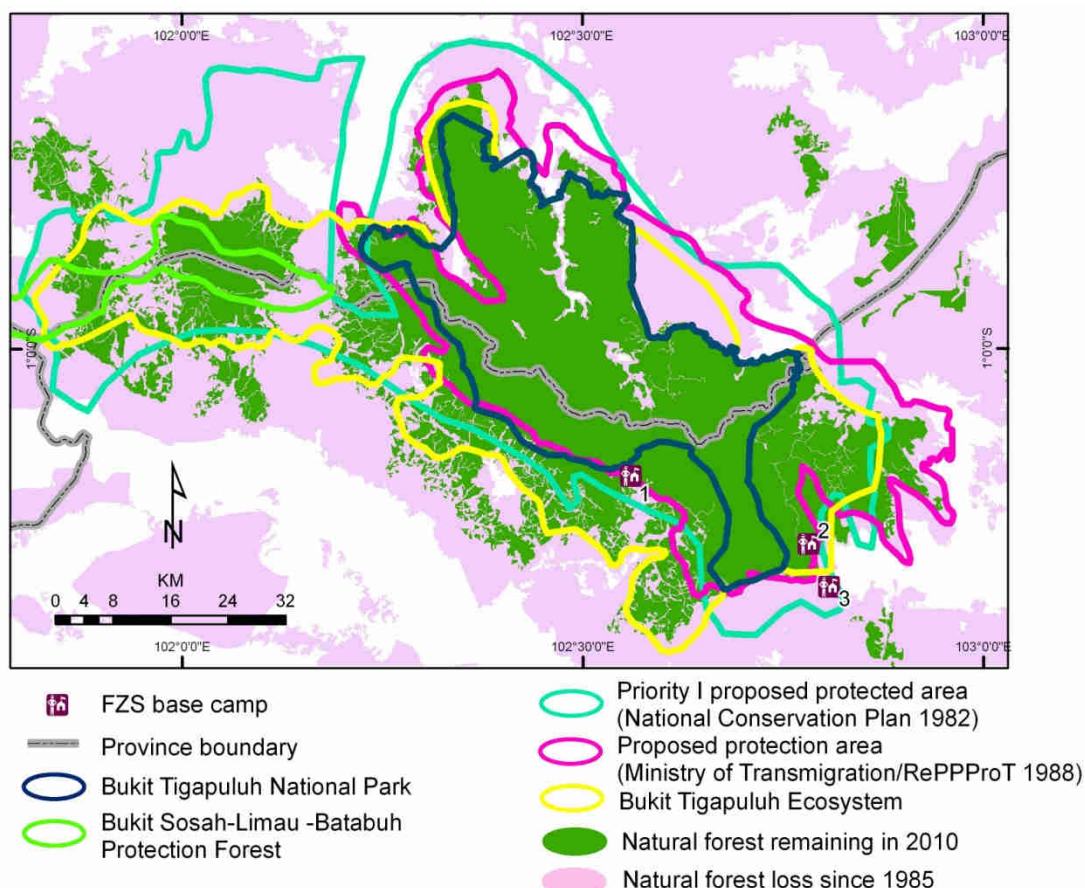
Many of the transmigrants come from areas of Indonesia that do not have elephants and tigers and thus are not prepared to deal with them and are not familiar with the traditional methods of avoiding human-wildlife conflict that the native communities know.



Orang rimba family stranded when APP/SMG's PT. Tebo Multiagro Corporation cleared their natural forest to plant pulpwood trees (see Chapter 5-8) © WWF-Indonesia, 17 April 2010 at S1°1'37.60"; E101°55'36.50".

## 4. Conservation efforts and natural forest loss

The High Conservation Values of the Bukit Tigapuluh landscape have been well recognized and the Indonesian government and NGOs have been trying to protect this unique ecosystem for almost 30 years. The chronology (Table 1) and historical map (Map 5) contrast these efforts and the historical loss of natural forest during this time inside our “analysis baseline area,” which was defined as a contiguous area of 651,232 hectares, with a 1-kilometer buffer from all natural forest cover in 2004, but without peat soil areas (see Map 6 for its boundary).



**Map 5 – Historical proposed protected areas and loss of natural forest in Bukit Tigapuluh.**

**Table 1 - Chronology of conservation efforts and loss of natural forest in Bukit Tigapuluh**

Year	Conservation effort	Hectares (ha) of natural forest cover and the percentage of baseline area they covered in data year
1982	National Conservation Plan for Indonesia (NCP) is produced, based on an eight-year (1974-1982) national park development project managed under the auspices of FAO/UNDP <sup>48</sup> , and proposes <b>511,982 hectares of natural forest for government protection</b> , consisting of a 218,287-hectare wildlife reserve (Bukit Besar in Jambi), a 197,393-hectare nature reserve (Seberida in Riau) and a 96,302-hectare hunting reserve (Peranap in Riau) (light blue boundary in Map 5).	621,910 ha – 95% (1985)
1988	The Ministry of Transmigration, using the Regional Physical Planning Project for Transmigration (RePPPProT) as an instrument, classifies <b>256,284 hectares</b> as “protection area for terrain protection (pink boundary in Map	596,126 ha – 92% (1990)

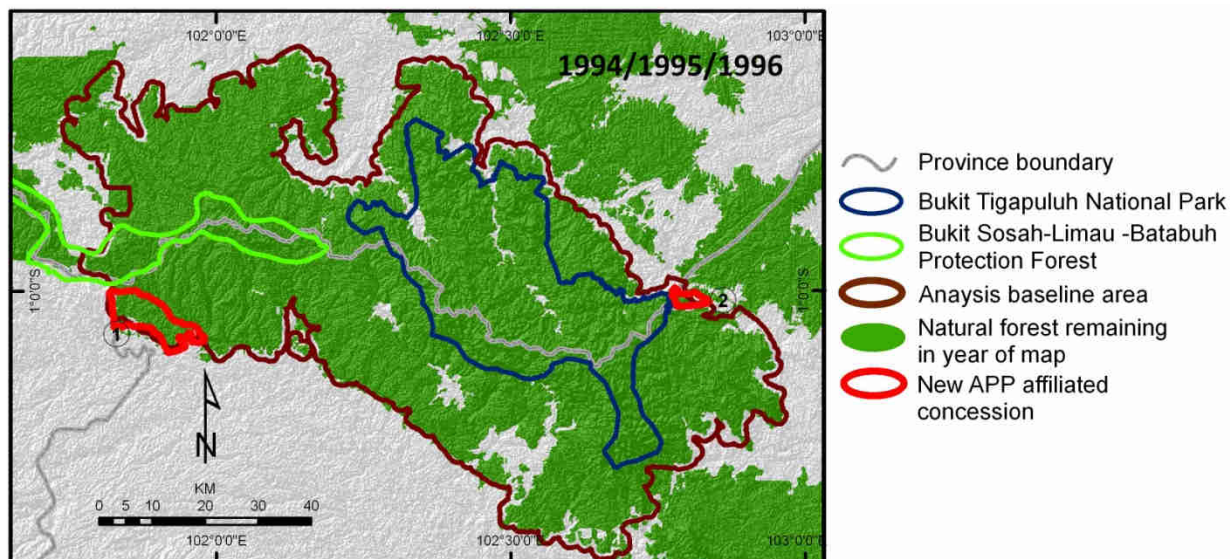


	5).” Some area overlaps with the 1982 NCP’s proposed area, but also includes additional area outside the NCP boundary in the east.	
1992	Indonesia presents the NCP (1982) proposed area at the Earth Summit in Rio de Janeiro, Brazil.	
1994	The Ministry of the Forestry sends a letter to the World Bank (Ref. No. 1289/Menhut-IV/1994) mentioning a plan to designate a <b>250,000-hectare</b> national park in Bukit Tigapuluh, similar to the RePPPProT proposal area.	583,475 ha – 90% (1994/1995-/1996)
1995	Ministry of Forestry designates the Bukit Tigapuluh National Park (Minister of Forestry Decree No. 539/Kpts-II/1995). However, it is only <b>127,698 hectares</b> , just a quarter of the 1982 NCP proposed area. The designated area originally consists of some protection forest and limited production forest in Riau and Jambi provinces and excludes the existing selective logging concessions, some of which were owned by a key Soeharto ally. The park is generally of steep, mountainous terrain that is not attractive for forestry operations.	
2002	Minister of Forestry Decree No. 6407/Kpts-II/2002 dated 21 June 2002 increases the area of the park to <b>144,223 hectares</b> (blue boundary in Map 5). Based on a memorandum for technical cooperation between the Ministry of Forestry and FZS <sup>49</sup> , FZS sets up a field camp in ex PT. Dalek selective logging concession and starts to reintroduce Sumatran orangutans (Map 2).	537,344 ha – 83% (2002)
2005	KKI Warsi, PKHS and FZS proposes to “rationalize” the Bukit Tigapuluh National Park on 20 July to close to <b>240,000 hectares</b> to include the dry lowland forest around the park and to tackle the problems of the park having too long boundaries to secure and a too small and out-of-reach core area. It also took into account that many of the selective logging concessions around the park had expired or were inactive. In October, the proposal is supported and signed by the Natural Resource Conservation Agency (BKSDA) Jambi and the National Park Management Authority and submitted to the MoF <sup>50</sup> .	500,152 ha – 77% (2005)
2007	WWF, KKI-WARSI, FZS, ZSL and PKHS submit a joint proposal to the Ministry of Forestry on 3 September <sup>51</sup> to zone <b>348,084 hectares</b> (yellow boundary in Map 5) for protection, mostly covered by natural forest, and recommend companies holding HTI concessions with natural forest in the landscape conduct professional assessments to identify and protect High Conservation Value Forests and professional environmental impact assessments to ensure that their natural forest conversion activities did not cause negative impacts.	446,518 ha – 69% (2006/2007)
2008	In August 2008, the National Park Office and Jambi and Riau provincial BKSDA agreed with the 3 September 2007 proposal boundary by the five NGOs. It was decided that this area would be called the <b>“Bukit Tigapuluh Ecosystem,”</b> an integral management unit of BTNP and the buffer zone for conservation and sustainable development	404,582 ha – 62% (2008)
2009	“The Bukit Tigapuluh Ecosystem Conservation Implementation Plan <sup>52</sup> ” was produced through collaboration by the Bukit Tigapuluh National Park Office, all the four District governments, local companies and the five NGOs with support from Directorate General Forest Protection and Nature Conservation and Federal Ministry and Economic Cooperation and Development of Germany and launched in May. KKI Warsi, WWF Indonesia, FZS, ZSL and PKHS also sent a joint letter to the Minister of Forestry to stop conversion of natural forest in Bukit Tigapuluh <sup>53</sup> .	343,662 ha – 53% (2009)

2010	The same five NGOs, an alliance of NGOs working on land use planning (ForTrust), and three joint initiatives between the PHKA and NGOs on conservation of flagship species (Forum Orangutan Indonesia, Sumatran Tiger Conservation Forum and Forum Konservasi Gajah Indonesia) sent a joint letter to the Minister of Forestry in April <sup>54</sup> to protect and restore natural forest in the Ecosystem, specifically to expand the national park or amend the existing overlapping HTI and HPH concessions into Ecosystem Restoration concessions and stop new license for natural forest conversion, including Annual Cutting License (RKT).	320,776 ha – 49% (2010)
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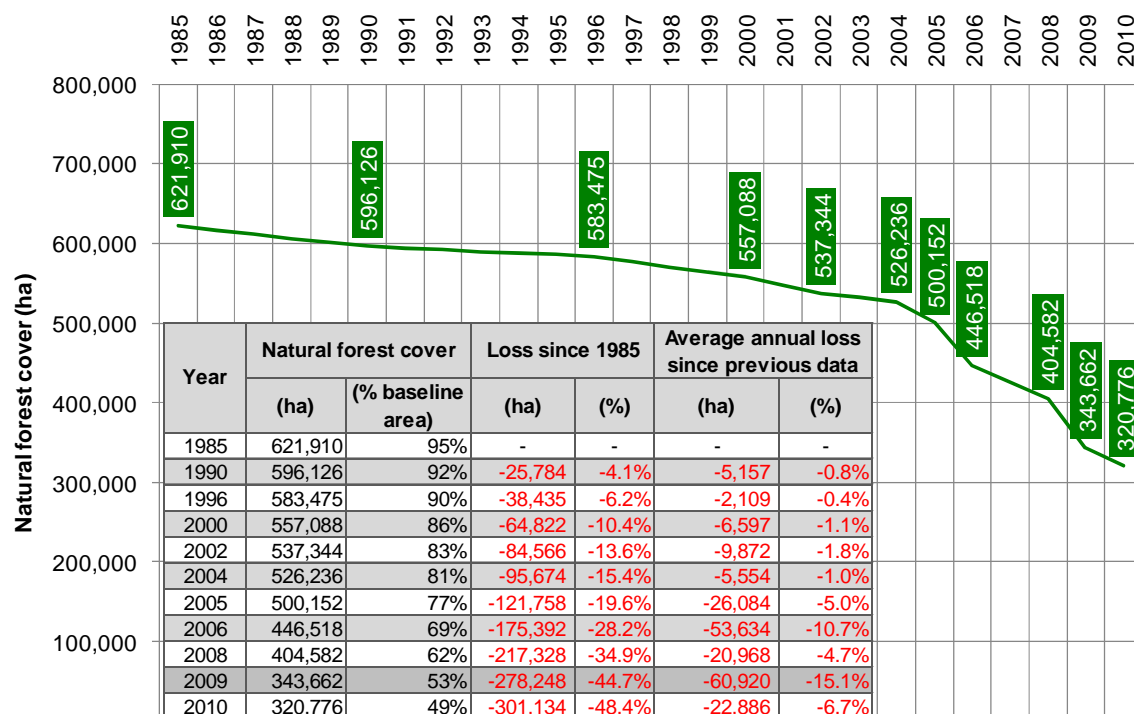
## 5. Natural forests lost until 2010

When the national park was designated in 1995, Bukit Tigapuluh's forest was still connected with some of the surrounding forests. In 1996, the first two industrial timber plantation (HTI) concessions –with licenses to clear cut the forest – appeared in this landscape (Map 6, Table 2). Most of the unprotected natural forest (outside national park and protection forest) was inside selective logging (HPH) concessions at that time, safe from conversion by law.



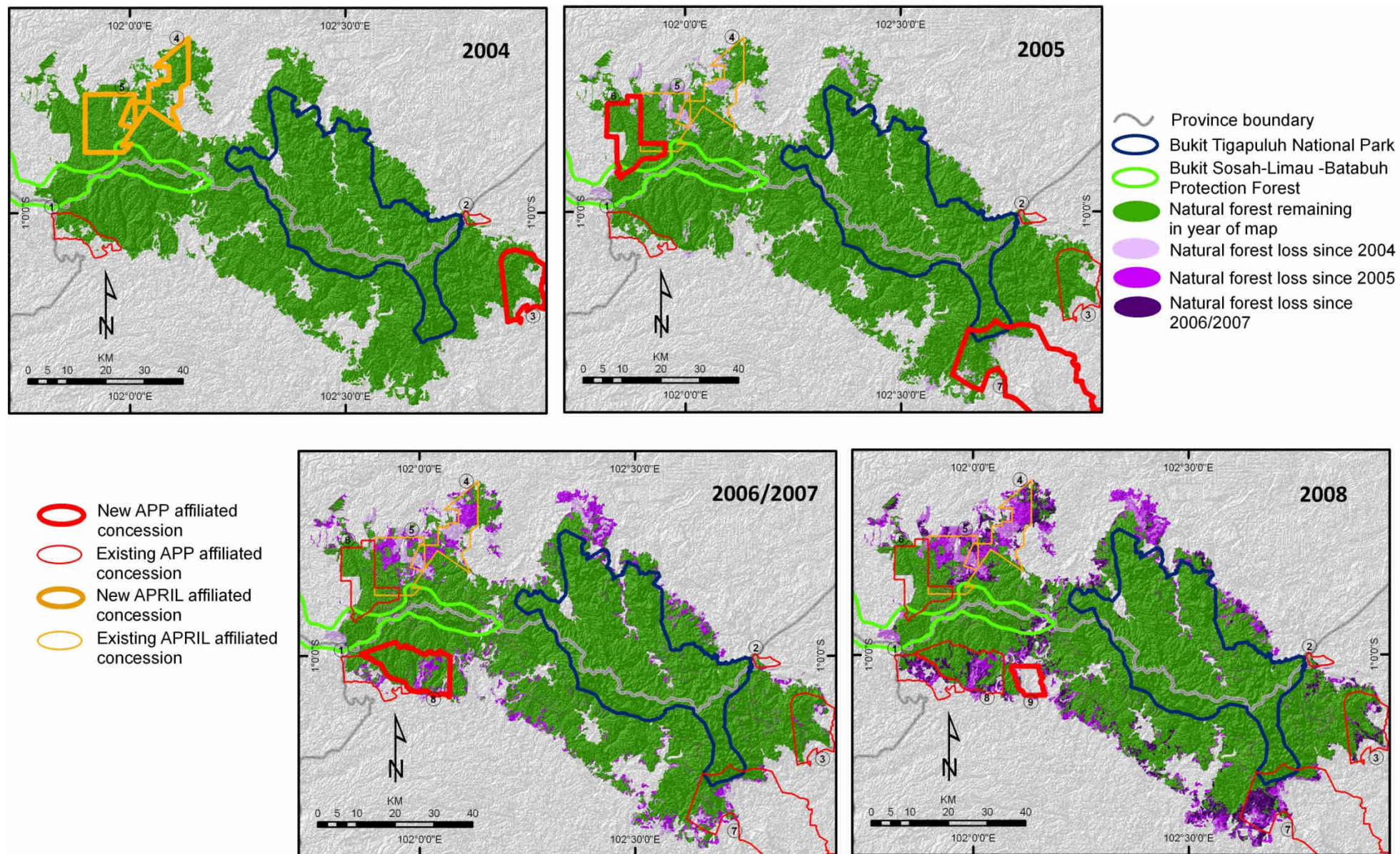
**Map 6 – Natural forest cover around 1995 and the first two HTI concessions in the area.**

Historical forest cover data between 1985 and 2010 shows that our Bukit Tigapuluh “analysis baseline area” (Map 6) lost almost 50% of its original natural forest cover. The loss was relatively slow until 2004 but gaining speed with over 10% lost per year in 2005/2006 and 2008/2009 and already close to 7% lost during the first half of 2010 (Figure 1, Maps 7-8). The spread of HTI concessions in the baseline area contributed greatly to the total natural forest loss (Map 7-8, Table 2). The loss of 301,134 hectares of natural forest over the past 25 years likely resulted in the emission of 182 megatons of CO<sub>2</sub> at an average of 7.3 megatons of CO<sub>2</sub> emissions per year, using IPCC default values.



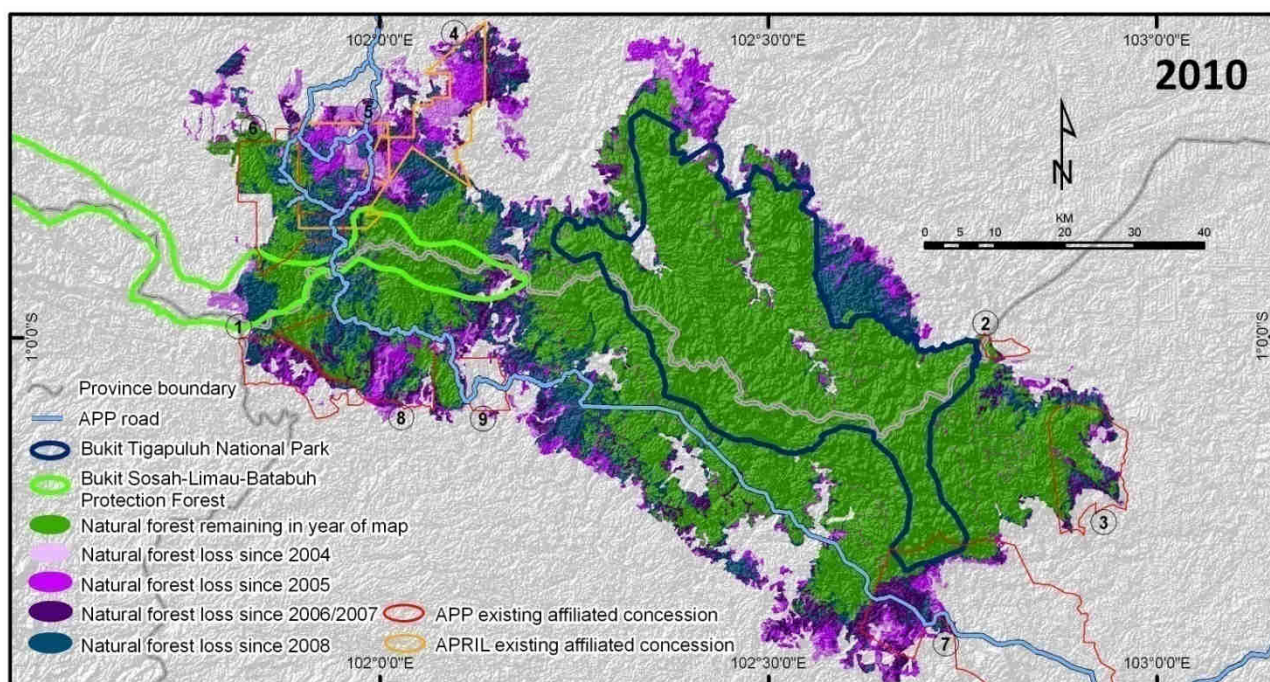
**Figure 1 - Natural forest cover and loss in the baseline area (651,232 ha) between 1985 and 2010.**





**Map 7 – Natural forest cover and loss 2004 and 2008 inside the baseline area, in relation to increasing HTI, or industrial plantation concessions, which started to operate since 2004.**





**Map 8 - Natural forest cover 2010 and forest loss since 2004 with all nine existing HTI concessions and the APP logging highway.**

The baseline area lost 205,460 hectares of natural forest in total between 2004 and 2010, 15% of which occurred inside seven APP/SMG-affiliated concessions and 12% inside two APRIL/RMG-affiliated concessions (Table 2). In addition, roughly 8% of the total forest loss occurred alongside an APP logging highway constructed through this forest landscape to clear natural forest and transport wood to the company's pulp mills in Riau and Jambi (see Chapter 7.3). This forest destruction has been thoroughly investigated and reported upon<sup>55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65</sup>. The remaining 65% forest loss was driven by illegal and/or unsustainable encroachment, mostly by migrant people from Java Island, North Sumatra, West Sumatra and Lampung, to plant rubber, oil palm and subsistence crops. Sometimes the deforested lands simply became "wastelands."

**Table 2 – Natural forest loss in the baseline area inside existing HTI concessions since 2004 or a later year in which they started to operate. Concessions are listed in consecutive order from the year they started natural forest clearance operations.**

(1) # in maps	(2) Name	(3) Affiliation	(4) The year when operation started	(5) GIS concession size (ha)	(6) GIS concession size inside the baseline area (ha)	(7) - (10) Natural forest cover in the baseline area			
						In 2004 or year in (4) if operation started after 2004	In 2010	Loss between (7) - (8)	% total forest loss 2004-2010
						(ha)	(ha)	(ha)	(%)
1	PT. Arangan Lestari	APP/SMG	1996	9,229	8,364	4,889	227	-4,662	2%
2	PT. Wana Teladan (Transmigrasi) West	APP/SMG	1996	1,381	881	515	415	-100	0%
3	PT. Rimba Hutani Mas (Taman Raja)	APP/SMG	2004	15,380	14,161	10,798	6,744	-4,054	2%
4	PT. Bukit Batabuh Sei. Indah	APRIL/RGM	2004	13,718	13,577	11,360	40	-11,320	6%
5	PT. Citra Sumber Sejahtera	APRIL/RGM	2004	16,489	16,489	16,028	1,752	-14,276	7%
6	PT. Artelindo Wiratama	APP/SMG	2005	15,719	15,015	12,920	7,468	-5,452	3%
7	PT. Wirakarya Sakti (Distrik VIII)	APP/SMG	2005	63,954	18,830	13,442	4,667	-8,775	4%
8	PT. Tebo Multiagro Cooperation	APP/SMG	2006	18,333	18,333	14,408	6,281	-8,127	4%
9	PT. Wanamukti Wisesa	APP/SMG	2009	4,874	3,099	300	202	-98	0%
			Total natural forest loss in 7 APP affiliated HTI					-31,268	15%
			Total natural forest loss in 2 APRIL affiliated HTI					-25,596	12%
			Natural forest loss along APP road					-15,680	8%
			Natural forest lost for other causes					-132,916	65%
			Total natural forest loss 2004-2010 in the baseline area					-205,460	100%

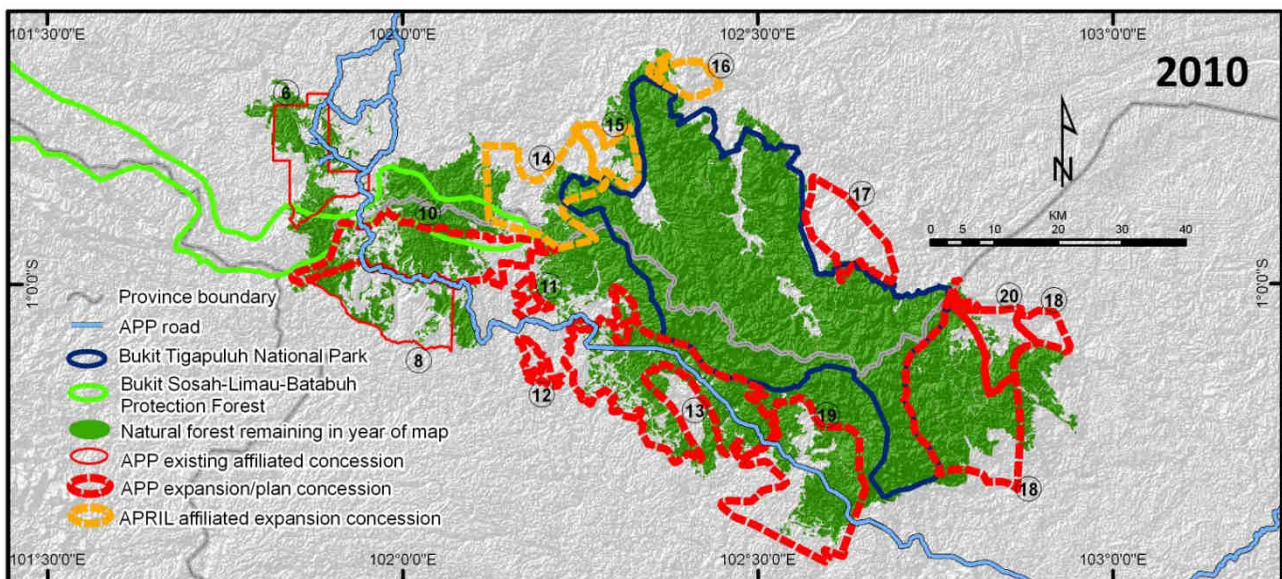
## 6. APP/SMG set to drive future loss of natural forest

An evaluation of possible future loss of natural forest concluded that APP/SMG could become the single biggest destroyer of natural forest in Bukit Tigapuluh, especially in the key ecological areas on whose resources indigenous and local people rely, which are critically endangered and which have a high density of three flagship species.

In 2010, 53 percent of the remaining forest in the baseline area lay outside of national park and protection forest zone. Of this unprotected forest, more than half – close to 97,000 hectares – lay inside APP/SMG-affiliated HTI concessions slated for conversion to plantations (Map 9, Table 3):

- Two existing concessions, PT. Artelindo Wiratama (#6) and PT. Tebo Multiagro Corporation (#8), which have been clearing natural forest in 2010.
- Eight pending HTI concessions, including those of PT. Lestari Asri Jaya of the Barito Pacific Group, which could start clearing natural forest as soon as permits are given by the government, and supply the cleared wood to APP.

Even the forests not cleared directly by APP/SMG's partners could be lost to illegal encroachers who were provided easy access when APP/SMG built a logging highway in the western and southern half of the landscape. Especially threatened are the natural forests inside concession blocks 13 and 19 on which Bukit Tigapuluh's flagship species are most dependent for their survival (Map 2, 9). At one point APP/SMG's highway passes as close as two kilometers from the national park boundary. A small encroachment is already entering the national park at this site (Map 9).



**Map 9 – Natural forest 2010 in the baseline area, two existing HTI concessions currently clearing natural forest, and new concessions which could start clearing natural forest as soon as permits are given.**

There are great concerns that APP/SMG's existing and potential wood suppliers will continue their “business as usual” clearance of HCVF and carbon stocks (Chapter 7) in the new concessions. The anticipated loss of 97,000 hectares of natural forest could cause 58.5 megatons of CO<sub>2</sub> emissions, applying IPCC default values. NGOs have been asking Government to not switch the area's expired/inactive selective logging concessions into HTI concessions which would clear the natural forests (Chapter 8), and made detailed recommendations for how Bukit Tigapuluh's stakeholders could prevent the extinction of the landscape (Chapter 9).

**Table 3 – Natural forest in the baseline area inside the two existing HTI concessions that have been clearing natural forest and in the new concessions that could start clearing natural forest if permits are given.**

# in Maps	Name	Affiliation & status	The year when operation started	GIS concession size (ha)	GIS concession size inside the baseline area	Natural forest cover inside the baseline area in 2010	
						(ha)	(% total unprotected forest)
6	PT. Artelindo Wiratama	APP Existing	2005	15,719	15,015	7,468	4%
8	PT Tebo Multiagro Corporation	APP Existing	2006	18,333	18,333	6,281	4%
10	PT. Lestari Asri Jaya (Blok 1)	Likely APP	RKT issued, but operation not started	23,205	23,205	12,711	7%
11	PT. Lestari Asri Jaya (Blok 2)	Likely APP		1,454	1,454	76	0%
12	PT. Lestari Asri Jaya (Blok 3)	Likely APP		1,994	1,831	0	0%
13	PT. Lestari Asri Jaya (Blok 4)	Likely APP		35,009	35,009	23,188	14%
14	PT. RAPP - Pontianai	APRIL Expansion	Licensing pending	18,898	18,288	8,075	5%
15	PT. Sumber Maswana Lestari West	APRIL Expansion	Licensing pending	5,256	4,541	1,544	1%
16	PT. Sumber Maswana Lestari East	APRIL Expansion	Licensing pending	3,999	3,999	895	1%
17	PT. Mapala Rabda (ex SWS) West	APP Expansion	Licensing pending	11,548	11,548	471	0%
18	PT. Rimba Hutani Mas (ex PT. Hatma Hutani)	APP Plan	Licensing pending	36,474	34,471	26,269	15%
19	PT. Rimba Hutani Mas (ex PT. Dalek Hutani Esa)/Perluasan	APP Expansion	Licensing pending	31,692	31,365	16,364	10%
20	PT. Rimba Hutani Mas (ex PT. Hatma Hutani)	APP Expansion	Licensing pending	7,990	7,592	3,661	2%
			<b>APP affiliated total</b>		179,823	96,489	57%
			<b>APRIL affiliated total</b>		26,828	10,514	6%
			<b>HTI total</b>		206,651	107,003	63%



## 7. APP/SMG standard operating procedure: HCVF and carbon stock destruction

APP/SMG's wood-sourcing is of great concern to the NGOs working to preserve Bukit Tigapuluh as it is destroying key tropical dry lowland forests around the national park. NGOs fear that APP/SMG wood suppliers will continue their "business as usual" clearance of HCVFs despite Government's many commitments to conservation and calls by conservation groups and people around the world to save Bukit Tigapuluh.

APP/SMG publicly claims that it does not clear high-quality forests: "APP's fibre suppliers operate pulpwood plantations according to legal concessions granted by the Government of Indonesia on land identified as being the lowest-value forested areas in the country, comprised largely of what it categorises as degraded or wasteland. Prior to plantation development the land is subjected to several ecological and social assessments to ensure that any areas of high conservation values are identified and protected."<sup>66</sup>

This is not true. Analysis of the operations of APP/SMG wood suppliers in the Bukit Tigapuluh landscape since 2004 clearly show that these companies have been clearing high quality natural forests (Table 3, 4, Map 7-9, Chapter 7.1 - 7.3):

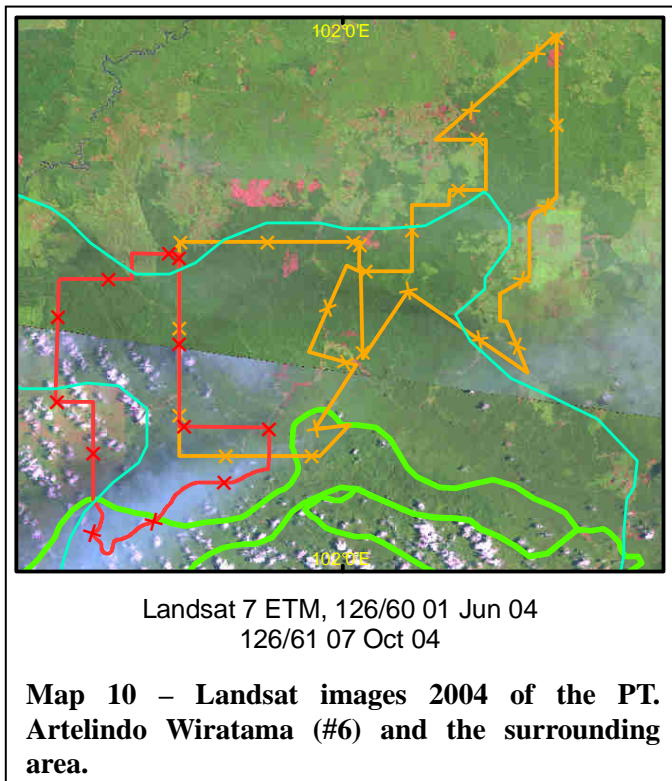
1. APP-affiliated companies solicited inactive selective logging (HPH) concessions on land with a high coverage of dense natural forests with High Conservation Values, far from anything that could be called "degraded or wasteland." They obtained government licenses to switch the HPHs to industrial timber plantation (HTI) concessions, which allow clear cutting and replacing of natural forest with monoculture plantations. They acquired licenses to operate a total of almost 129,000 hectares of concession area, with close to 75,000 hectares of good natural forest coverage at the time the concessions were issued. In some cases, the licenses were issued under legally questionable circumstances and there are allegations of corruption (Chapter 7.1 & 7.2).
2. APP/SMG-affiliated companies cleared these High Conservation Value Forests to supply mixed tropical hardwood for the company's pulp production. The concessions lost more than 60,000 hectares of good forest from the start of their operation until 2010 (an 81% loss) without appropriate professional assessments or stakeholder consultation.
3. APP's new logging highway was constructed through High Conservation Value Forests without an environmental impact assessment. It has been driving the loss of natural forest by giving access to encroachers who otherwise could not have reached these forests (Chapter 7.3).

**Table 4 – Nine HTI concessions that have been operating in the Bukit Tigapuluh landscape.**

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
# in maps	Name	Affiliation	GIS Concession Size (ha)	The year when operation started	Natural forest clearance continues in 2010?	Natural forest when operation started in (5)		Natural forest in 2010		Natural forest loss since operation started until 2010	
						(ha)	(%)	(ha)	(%)	(ha)	(%)
1	PT. Arangan Lestari	APP/SMG	9,229	1996	NO	7,839	85%	227	2%	-7,612	-97%
2	PT. Wana Teladan (Transmigrasi) West	APP/SMG	1,381	1996	NO	928	67%	415	30%	-513	-55%
3	PT. Rimba Hutani Mas (Taman Raja)	APP/SMG	15,380	2004	NO	10,798	70%	6,744	44%	-4,054	-38%
4	PT. Bukit Batabuh Sei. Indah	APRIL/RGM	13,718	2004	YES	11,360	83%	40	0%	-11,320	-100%
5	PT. Citra Sumber Sejahtera	APRIL/RGM	16,489	2004	YES	16,028	97%	1,752	11%	-14,276	-89%
6	PT. Artelindo Wiratama	APP/SMG	15,719	2005	YES	12,920	82%	7,468	48%	-5,452	-42%
7	PT. Wirakarya Sakti (Distrik VIII)	APP/SMG	63,954	2005	NO	43,793	68%	9,171	14%	-34,622	-79%
8	PT Tebo Multiagro Cooperation	APP/SMG	18,333	2006	YES	14,408	79%	6,281	34%	-8,127	-56%
9	PT. Wanamukti Wisesa	APP/SMG	4,874	2009	NO	300	6%	202	4%	-98	-33%
				<b>APP affiliated total</b>		74,958	58%	22,475	17%	-60,478	-81%
				<b>APRIL affiliated total</b>		27388	91%	1792	6%	-25,596	-93%
				<b>HTI total</b>		102,346	64%	24,267	15%	-86,074	-84%

## 7.1. Investigation of PT. Artelindo Wiratama by Eyes on the Forest

APP/SMG has been pulping natural forest from Bukit Tigapuluh in 2010. APP/SMG's Indah Kiat pulp mill in Riau has been sourcing mixed tropical hardwood (MTH) from PT. Artelindo Wiratama (concession # 6). APP/SMG's Lontar Papyrus pulp mill in Jambi has been sourcing MTH from PT. Tebo Multiagro Corporation (concession # 8).



The PT. Artelindo Wiratama concession originally received a legally questionable license from a district head in 2002<sup>67</sup>, in violation of the Minister of Forestry Decree No. 10.1/Kpts-II/2000 (6 November 2000)<sup>68</sup>, the Minister of Forestry Decree No. 21/Kpts-II/2001 (31 January 2001)<sup>69</sup> and the Government Regulation Number 34 Year 2002 (8 June 2002)<sup>70</sup>.

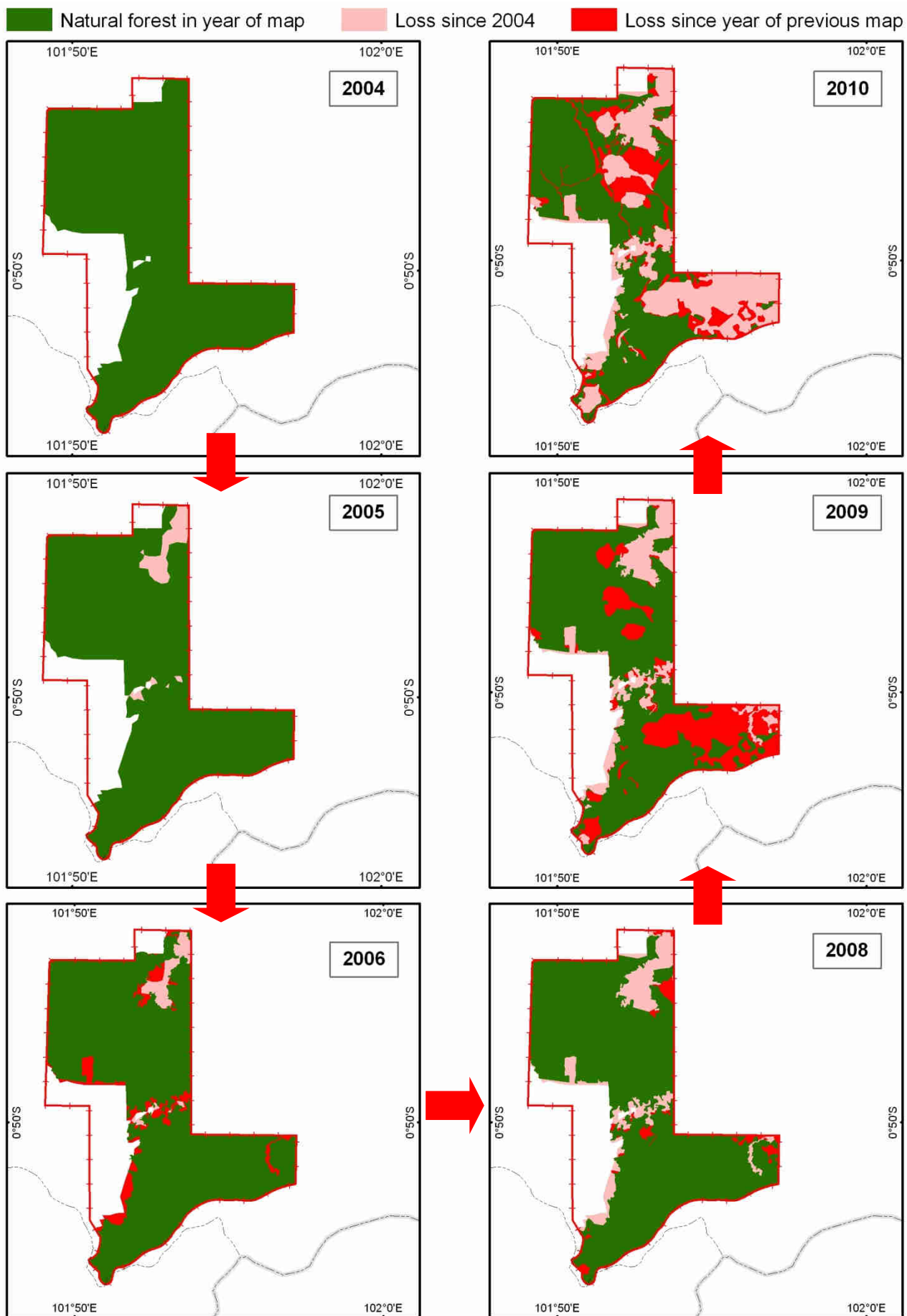
In 2004, the year before the company started clearance, this concession (red boundary) was almost fully covered by dense natural forest of similar quality as the forests in the neighboring protection forest (light green boundary) (Map 10). The concession is habitat of a Sumatran elephant population (light blue boundary) and Sumatran tigers.

Despite being on legally shaky grounds, the company started to clear good natural forest in 2005 and continued to do so until early 2007 (Map 11). Eyes on the Forest verified in

September 2005<sup>71</sup> that the company supplied MTH to APP's Indah Kiat Pulp & Paper mill in Riau.

Between January 2007 and December 2008, the concession was investigated by the Riau and National Police for alleged illegal logging and did not clear natural forest or transport MTH as a result. In April 2007, the then-Minister of Forestry issued a renewal license (SK. 122/Menhut-II/2007 dated 2 April 2007) to "legalize" this concession, even though it did not pass a crucial verification criteria stipulated by the Ministry of Forestry<sup>72</sup>, namely that "the area allowed to be converted into pulpwood plantation is only on areas containing barren land, grassland, shrubs or those determined by the Minister of Forestry Decree Number 10.1/Kpts-II/2000 in substitution with the Minister of Forestry Decree Number 21/Kpts-II/2001<sup>73</sup>".

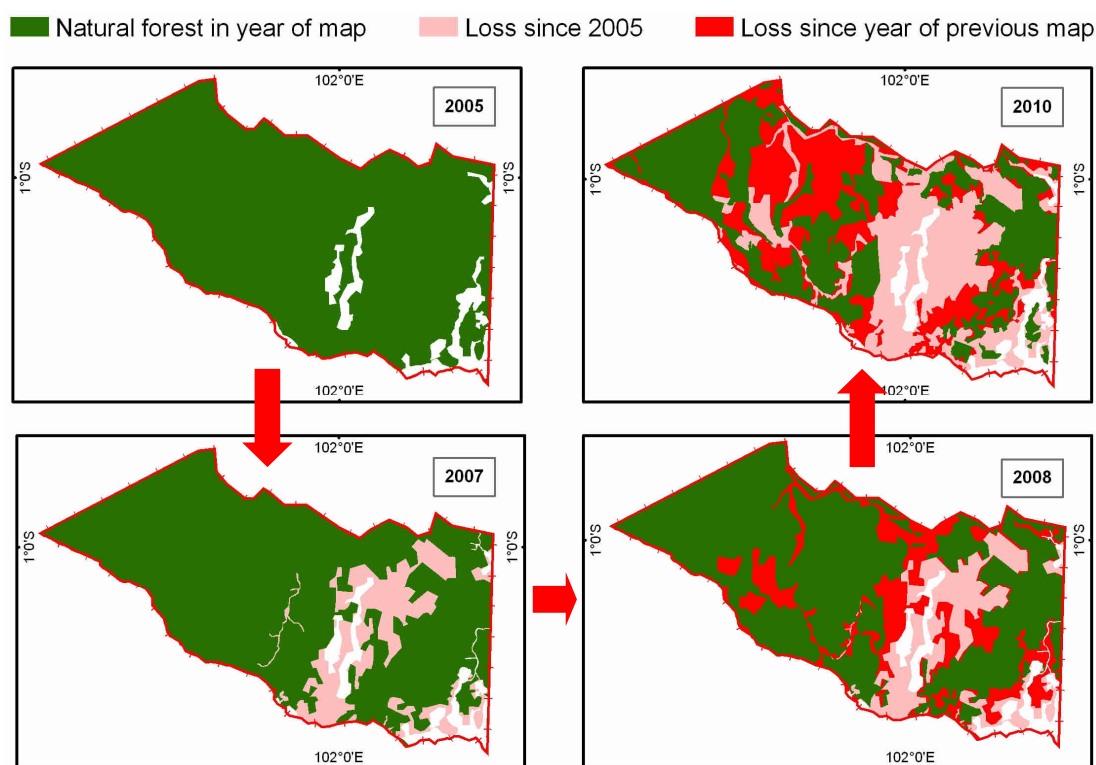
Historical Landsat image analysis and field surveys proved that the company restarted clearing good natural forest in 2009 (Map 11 and PT. Artelindo Wiratama evidence on Google Earth<sup>74</sup>). By 2010, the concession had only just over 30 percent forest cover (Table 4). The clearance was based on so-called "annual cutting licenses" (RKT) issued by the Ministry of Forestry's Director of Forest Plantation Development on 15 April 2009<sup>75</sup>, <sup>76</sup> and on 25 March 2010<sup>77</sup>. The planned clearcut area and MTH volume for the RKTs actually prove that the forest to be cleared was in good condition. The 2009 permit allowed clearance of 4,940 hectares of natural forest to generate 365,500 cubic meters of MTH: 74 m<sup>3</sup>/ha on average. The 2010 permit allowed clearance of 3,456 hectares of natural forest to harvest 378,910 cubic meters of MTH: 110 m<sup>3</sup>/ha on average<sup>78</sup>.



**Map 11 – Historical loss of natural forest inside PT. Artelindo Wiratama.**

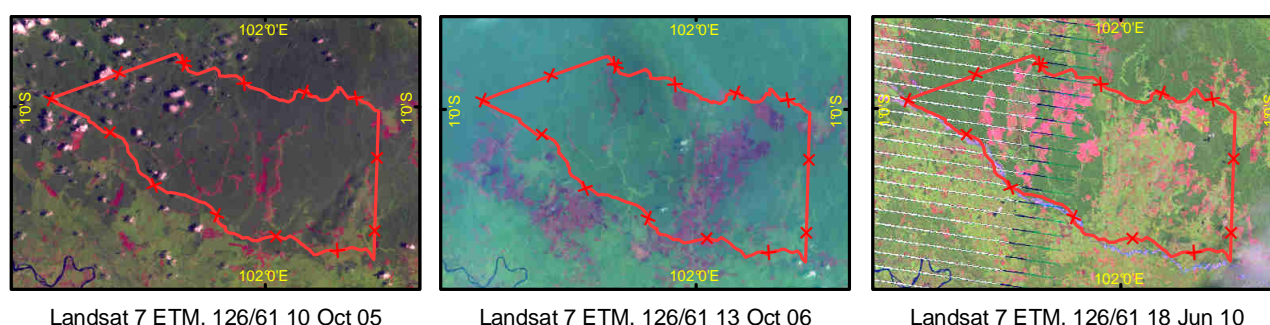
## 7.2. Investigation of PT. Tebo Multiagro Corporation by KKI Warsi and WWF-Indonesia

PT. Tebo Multiagro Corporation started operating its 18,333 hectares concession in 2006. The concession had more than 70 percent forest cover, close to 13,000 hectares. A 2007 investigation found that the forest the company was clearing was good forest with many large-diameter trees, in violation of legal requirements<sup>79</sup>. In 2009, PT. Tebo Multiagro Corporation is estimated to have cleared 2,000 hectares of tropical forest. By 2010, the concession had just over 30 percent forest cover remaining (Map 12 and Table 4).



**Map 12 – Natural forest cover and loss in the PT. Tebo Multiagro Corporation concession between start of operation in 2006 and 2010.**

KKI Warsi and WWF-Indonesia investigation teams traced the logged wood from forest to mill in April and May 2010, and confirmed that the wood felled in this concession was sent to APP/SMG's PT. Lontar Papyrus Pulp & Paper mill in Jambi via APP's logging highway through the PT. Lestari Asri Jaya concessions (PT. Tebo Multiagro Corporation evidence on Google Earth<sup>80</sup>). The investigations also found stacks of MTH, proving that good natural forest with large-diameter trees had been cleared<sup>81</sup>. Landsat satellite images from 2002-2008 (Map 13) indicate that the tropical rain forest inside this concession was in very good condition before being clearcut by the company.



**Map 13 – Historical Landsat images of PT. Tebo Multiagro Corporation (#8)/APP. The concession started to operate in 2006 when the concession was still 79 percent covered by good natural forest (Table 4). The company continued clearing the last remaining natural forest in 2010.**

During the April 2010 field investigation, the team met with indigenous Orang Rimba who used to live inside the natural forest that the company converted into pulpwood plantation (PT. Tebo Multiagro Corporation evidence on Google Earth<sup>82</sup>). They told the team that it is hard for their tribe to survive in plantations as their livelihoods depend heavily on natural resources from forests and rivers.

This concession, other APP/SMG-affiliated companies and government officials are involved in alleged corruption and tax evasion cases. In March 2008, the NGO Jarak filed a report to the Jambi Police over alleged graft involving the Tebo District Head, Madjid Muaz, accusing him of misusing the Provincial Budget for developing pulpwood plantations in this concession. Several NGOs urged the Jambi Prosecutors' Office to probe the Tebo District Head for alleged corruption related to a change of concession operations from teakwood plantation, fruit cultivation and cattle breeding of the original joint venture partnership agreement signed by his District-owned company to pulpwood plantation development<sup>83</sup>. The Indonesian Supreme Audit Agency (BPK) found in 2009 that APP pulpwood suppliers, including PT Tebo Multiagro Corporation, PT. Wira Karya Sakti and PT. Rimba Hutani Mas, had not paid their forest exploitation breach fine of Rp. 130.9 billion and Rp. 50.4 billion respectively, for not paying timber felling fees for 4.3 million cubic meters<sup>84, 85</sup>.

### **7.3. Questionable legality of APP/SMG's logging highway**

In addition to clearing good natural forest for pulp production, APP/SMG partners constructed a logging highway, wood transportation road through the Bukit Tigapuluh forest in 2007.

In January 2008, NGOs reported on the construction of this road and called on APP to halt construction. NGOs were concerned that it would have a devastating impact on the landscape by allowing illegal encroachers to enter and illegally clear natural forests which had been inaccessible until then<sup>86</sup>. The road passes as close as two kilometers from the national park's boundary. By 2010, NGO fears about the road had become reality, even the national park and protection forest had been encroached (Map 8, APP/SMG logging highway evidence on Google Earth<sup>87</sup>).

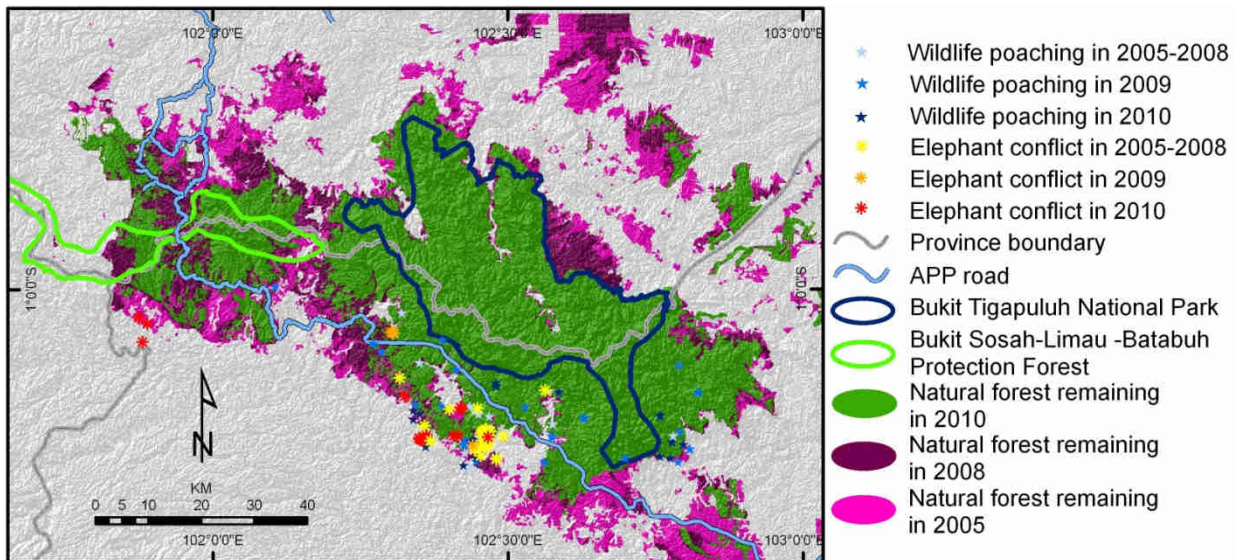
The construction of this logging highway involving the clearance of natural forest has been considered likely illegal because:

- APP's partner had no license to construct this road in Riau Province.
- APP/SMG began road construction in Jambi Province in July 2007 and Warsi and WWF-Indonesia confirmed construction activities in September 2007. However, the two definitive licenses for the road construction by the then-Jambi governor were not issued until October and November 2007 – when the road was almost complete.
- APP/SMG built the Riau section of the road between PT. Artelindo Wiratama and PT. Tebo Multiagro Corporation concessions through a protection area (Hutan Lindung) .



## 7.4. Forest loss and wildlife

FZS has been surveying wildlife in Bukit Tigapuluh, particularly the southern and eastern part of the national park, since 2005, first using the name “Orangutan Protection Units” and later changing it to “Wildlife Protection Units” (Map 14). From the survey data taken from 2005 until August 2010, wildlife poaching was found either in the forest boundary or far inside the natural forest, mostly happening along small logging corridors left from past selective logging operations such as the former PT. Dalek Hutani Esa, former PT. Industries et Forest Asiatiques, and former PT. Hatma Hutani.



**Map 14 – Historical natural forest loss, wildlife poaching and elephant conflict incidents in Bukit Tigapuluh 2005-2010.**

Of the three Sumatran flagship species and the Malayan tapir that FZS monitors in Bukit Tigapuluh, the Sumatran elephants are the most vulnerable species because of their preference for natural forest in flat topographies, which are increasingly lost and fragmented, pushing them into closer contact and conflict with people. Today, human-elephant conflict is very common along the southern part of the Bukit Tigapuluh landscape, along the forest edges where interaction with humans cannot be avoided. The conflicts mostly occur in oil palm plantations, rubber plantations, and agricultural fields where elephants destroy both people’s huts and crops. The encounters sometimes end in the death of people and elephants. Indonesia’s Elephant Conservation Forum last year warned that the resident elephant populations in Bukit Tigapuluh are threatened by extinction due to natural forest conversion by APP/SMG partners and the resulting human-elephant conflicts<sup>88</sup>.

In 2010 alone, there have been at least two news reports about elephant poaching and elephant conflict in this area. In March 2010, a team composed of FZS WPU and Jambi BKSDA forest police found three skulls of Sumatran elephants near the confluence of the Lalo River and Pinang Belaian River, just inside what is now the PT. Lestari Asri Jaya Concession Block IV, which was then under consideration for clearing. Although at least two national Indonesian newspapers and one local newspaper had covered this story<sup>89</sup>, the National Government proceeded with issuing the definitive license and annual cutting license (RKT) for the industrial timber plantation concession. The Government of Tebo regency has continued issuing Hutan Tanaman Rakyat (community timber plantation) licenses for natural forest areas surrounding the concession, thus causing the loss of these natural forests (for example, the Puding Sepakat Corporation Community Timber Plantation owned by a non-Bukit Tigapuluh Tebo community).

On 31 July 2010, a fatal conflict occurred inside the Arangan Hutan Lestari and Tebo Multiagro Corporation concessions when a herd of around 40 elephants killed a villager<sup>90</sup>. The incident took place inside a production forest, based on Jambi Landuse Plan 1994, yet the Tebo Forestry Service refused to take on the issue and left it to the Jambi BKSDA to handle the matter.

## 7.5. Forest loss and people

The government of Indonesia does not account for the traditional land rights of indigenous peoples when it leases logging concessions to industry. Some Orang Rimba are now forced to live part of the year inside of palm oil or pulpwood plantations.

The Orang Rimba have long practiced a system of forest resources management that protects their resources and has allowed them to survive on forest produce for generations. But as their forests disappear, the government's solution has been to provide them with pre-fabricated houses to live in, without shade, without water. It hasn't worked<sup>91</sup>. The local government has not considered the existence of Orang Rimba in designating the land use planning, thus the tribe has become marginalized<sup>92</sup>.

As further forest clearance permits are issued by the government, the Orang Rimba in Bukit Tigapuluh stand to lose their home as the landscape's remaining forest beyond the national park will be cleared for pulpwood plantations, either for PT. Rimba Hutani Mas or PT. Lestari Asri Jaya.

### Conflict with communities

At least two incidents occurred in 2010, involving communities opposed to APP/Sinar Mas-associated companies in two villages surrounding the Bukit Tigapuluh landscape.

In May 2010, five residents of the VII Koto village were injured in an incident involving APP pulpwood supplier PT. Tebo Multiagro Corporation (TMA), after the villagers rushed into the company's base camp to protest the clearing of forest for a pulpwood plantation.<sup>93</sup>

According to an eyewitness account in Pemayungan village, an incident in July occurred after security guards from PT. TMA (Sinar Mas Forestry) insisted that villagers were working on land belonging to PT. TMA. The villagers resisted. There were not any serious injuries in the 11 July incident despite two of seven PT. TMA employees being beaten by the mob<sup>94</sup>. The location is near a site where PT. Lestari Asri Jaya (LAJ) was granted a new license for converting tropical rainforest into a pulpwood plantation.

Residents surrounding the landscape, who have lived for generations in long-standing villages, report resentment toward the approach taken by the APP-affiliated companies, which often use force from police and security officers. The communities are not benefitting from the massive conversion of natural forest by the pulpwood plantation companies in the landscape. The operation of PT. LAJ will inevitably increase tension as local communities lose the forest and lose income from non-timber products they depend on collecting in the rain forest.

Villages concerned about upcoming deforestation by PT. LAJ include: Pemayungan, Semambu, Muaro Sekalo, Suo-suo (in Sumai sub-district) and Sungai Karang (VII Koto Ilir sub-district). Other villages dependent upon forests now being cleared by PT. LAJ or PT. TMA are: Teluk Kayu Putih, Sungai Abang, Aur Cino, Lembayo, Dusun Baru (VII Koto sub-district), Teluk Kepayang Pulau Indah, Balairajo, Paseban, Cermin Alam (VII Koto Ilir) and Tebo Ulu, Teluk Kual, Melako Intan, Pulau Temiang, Rantau Loyang, Tanjung Aur, and Rambahan.

There are five villages (Pemayungan, Semambu, Tuo Sumay, Muaro Sekalo, Suo-Suo) inside Blok I of the Lestari Asri Jaya concession, but they report there have been no consultations with them during the environmental impact assessment, or AMDAL study. APP/SMG's socialization efforts seem to be restricted to the distribution of flyers in schools.

According to an NGO alliance in Jambi, 29 villages report conflict with forestry and mining companies. The alliance, called AMPUH, said that six sub-water catchment areas in Jambi were destroyed by industrial sewage and 19 rivers were polluted by industrial operations, including by PT. Lontar Papyrus Pulp & Paper Indonesia, APP/SMG's pulp mill in Jambi.<sup>95</sup>





**June 2009 -- Husin and his family worry about being removed from their traditional rainforest home, which is now controlled by PT Rimba Hutan Mas, an APP/SMG-affiliated company (Photo by EoF, GPS location S01°08'17"; E102°25'19.00").**

#### **An Orang Rimba Family's Plight**

EoF met Husin in June 2009, when he reported being frustrated as his family's forest then had already been converted into pulpwood plantations

([http://eyesontheforest.or.id/index.php?option=com\\_content&task=view&id=244&Itemid=6](http://eyesontheforest.or.id/index.php?option=com_content&task=view&id=244&Itemid=6)).

In June 2010, Eyes on the Forest caught up with Husin and his family again in the Bukit Tigapuluh forest. They said they were concerned that the natural forest in which they live in would be converted into pulpwood plantation by PT. Lestari Asri Jaya of the Barito Pacific Group, which may be a APP/SMG-affiliated company.

Husin and his family say that the company staff has pressured them to stay away from the forest that his family has been living in for generations. Husin still hopes that government officials can help them to remain in their forest and protect them from being marginalized by the pulpwood concessions. But how, he wondered, could Husin continue to find "jernang" (rattans that yield resins), resin torch and rattan if the forest is converted into pulpwood plantation?

They have since been expelled by PT. Tebo Multi Agro security and have moved to PT. Lestari Asri Jaya. Husin now worries he will also lose the forest in PT. Lestari Asri Jaya concession.

Syukur, whose family lives in the former PT. IFA concession, lamented the loss of forest that he believed led to the death of four children among his clan recently. The forest loss has threatened the survival of the Orang Rimba, as the medicinal plants and food they depend on have become extremely rare now. Syukur and his wife and three children try to survive by seeking rice aid from local villagers (Media Indonesia, 27 June 2010 Suku Anak Rimba Terjepit Pembabatan Hutan di TNBT).

## 8. Bukit Tigapuluh's future in the hands of the Sinar Mas Group

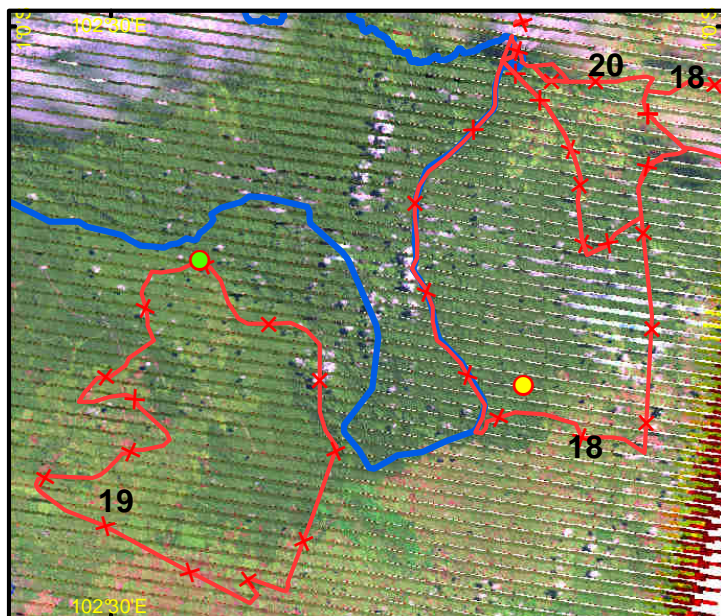
NGOs have repeatedly called on APP/SMG to stop pulping HCVPs in PT. Artelindo Wiratama and PT. Tebo Multiagro Corporation concessions and close the company's logging highway. In 2010, the two concessions still had close to 14,000 hectares of natural forest, 8 percent of the remaining unprotected in Bukit Tigapuluh baseline area.

In addition, NGOs have been trying to stop the licensing of natural forest conversion in concessions of two companies, one affiliated with APP/SMG and the other likely affiliated with APP/SMG through the Barito Pacific Group:

- PT. Rimba Hutani Mas of Sinar Mas Group (former Dalek Hutani Esa HPH concession: #19 and former PT. Hatma Hutani HPH concession: #18 and #20)
- PT. Lestari Asri Jaya of Barito Pacific Group (four blocks inside former PT. IFA HPH concession, #10-13)

Together, these concessions controlled more than 82,000 hectares of natural forest in 2010 (Table 3), 48 percent of the remaining unprotected natural forest in Bukit Tigapuluh baseline area.

### 8.1. The PT. Rimba Hutani Mas threat



**Map 15 – PT. Rimba Hutani Mas has received Ministry of Forestry principal licenses for ex PT. Dalek Hutani Esa HPH concession area (19) and a part of ex PT. Hatma Hutani HPH concession area (20), but still not for the rest (18). Landsat 7 ETM images 126/61 of 22 November 2009 and 18 June 2010 show there is still good natural forest in these areas.**

Sinar Mas Group's PT. Rimba Hutani Mas has long been trying to have Government change the status of two expired selective logging (HPH) concessions, former PT. Dalek Hutani Esa and former PT. Hatma Hutani to HTI.

The two concessions together contain close to 43,000 hectares of natural forest, still dense in many areas (Map 15). They are considered High Conservation Value Forest, critical habitat of Sumatran tigers and orangutans and home to the indigenous Orang Rimba and Talang Mamak tribes.

The former PT. Dalek Hutani Esa concession is said to be on the Ministry of Forestry's list of candidate concessions to become "Ecosystem Restoration HPHs." The majority of the former PT. Hatma Hutani concession area, except block number 20, is inside "Limited Production Forest" zoning of the currently active Padu Serasi land use plan and natural forest conversion is not permitted.

FZS, based on a memorandum of understanding with the Ministry of Forestry and in cooperation with the Ministry of Forestry's Natural Resources Conservation Agency in Jambi and the Bukit Tigapuluh National Park Office, built one field station (the Sumatran Orangutan Reintroduction Centre) in the former PT. Dalek Hutani Esa concession in 2001 and two more (Open Orangutan Sanctuary and Joint FZS & Tanjung Jabung Barat Regency Forestry Office Forest Protection Base Camp) in the former PT. Hatma Hutani concession in 2009 and 2010.

In 2008, PT. Rimba Hutani Mas received a "principal license" (Forestry Minister Decree No. 777/Menhut-IV/2008) for all of the former PT. Dalek Hutani Esa (#19) and a part of the ex-PT. Hatma

Hutani (#20) and is getting closer to being allowed to clear the forest. PT. Rimba Hutani Mas received a recommendation letter by the local Tanjung Jabung Barat District head for rezoning of the remaining area of the former PT. Hatma Hutani (#18) though most of the area is designated as “Limited Production Forest” and thus not eligible for HTI development.

An AMDAL, the environmental impact assessment required by law prior to a definitive license issuance, was conducted in 2009 for the former PT. Dalek Hutani Esa concession area by a consultancy company appointed by PT. Rimba Hutani Mas. Detailed evaluation of this AMDAL discovered two major flaws:

- (1) The document falsely stated that the natural forest cover in the concession was around 25 percent while a Landsat image of January 2009 showed 50 percent forest cover with high standing tree volume.
- (2) The document failed to mention the existence of the Sumatran Orangutan Reintroduction Center in the concession, a substantial omission.

In May 2009, FZS, KKI-Warsi, PKHS, ZSL and WWF-Indonesia sent a joint letter to the Ministry of Forestry opposing any change of the concession status that would allow forest conversion, and asking the natural forest in the Bukit Tigapuluh Ecosystem and beyond to be declared off-limits to plantation conversion<sup>96, 97</sup>.

On 22 June, APP/SMG published a statement to inform “concerned stakeholders” and wrote that a multi-stakeholder meeting was conducted on 17 June by the Ministry of Forestry, in which the Ministry decided that “a credible independent multi-stakeholder team will be set up to assess the ecological and social condition of the surrounding areas of BTNP. In addition to the two Directorate Generals and PT. Rimba Hutani Mas, the multi-stakeholder team would consist of a number of stakeholders who attended the meeting including WARSI, WWF and the Frankfurt Zoological Society.”<sup>98</sup>

On 3 August 2009, the “credible independent multi-stakeholder team” arrived in the field. However, the team consisted exclusively of Ministry of Forestry staff. WARSI, WWF, Frankfurt Zoological Society, Zoological Society of London and Yayasan PKHS had not been invited to be part of the team. However, upon arrival on site, the Ministry of Forestry’s field team invited FZS and WARSI to join.

On 27 July 2009, APP published a press release saying that PT. Rimba Hutani Mas (RHM) signed a joint declaration to establish the “Taman Raja Nature Reserve” with the Jambi provincial government, the Department of Forestry, a number of local NGOs and public figures from the local community. “RHM with the support of APP has set aside 9,687 hectares of its government appointed concession area to ensure the conservation of this important area.”

GIS analysis shows that the announcement was a pure public relations exercise by APP/SMG, along the lines of the company’s green claims about the Giam Siak Kecil-Bukit Batu UNESCO Biosphere Reserve<sup>99</sup> and Senepis-Buluhala Tiger Conservation Area in Riau Province:

- PT. Rimba Hutani Mas started to operate in this small HTI concession (#3) in 2004 (Maps 7-8, Table 2, 4), despite the fact a lot of the natural forest remaining in the concession in 2004 should not have been clear-cut because it was inside the “limited production forest” zone of the Padu Serasi land-use plan.
- Between 2004 and 2010, the concession lost around 4,000 hectares of natural forest (a 38 percent loss) (Table 4) and the Taman Raja Nature Reserve (TRNR) today only covers around 6,700 hectares of natural forest (Map 8 and Table 4).
- Most of the natural forest APP claims to protect in the reserve is on slopes of more than 40 degrees and some is inside the “limited production forest.” By Indonesian regulation none of these can be cleared. APP/SMG announcement thus did not lead to any forest conservation gains.
- APP said: “The declaration marks a commitment by all of the stakeholders involved to maintain and develop a “wildlife corridor” connecting the TRNR and the 144,223 ha Bukit Tigapuluh National Park. TRNR and the wildlife corridor will provide additional protection for the animals and ensure they have uninhibited access to and from the national park. To ensure the preservation of the Taman Raja area, RHM and APP’s other pulpwood suppliers also develop sustainable forest plantations around the conservation area.” What “wildlife corridor” is APP/SMG talking about? The reserve area contains a very small fraction on the very outer edge of the contiguous forest of Bukit Tigapuluh landscape,

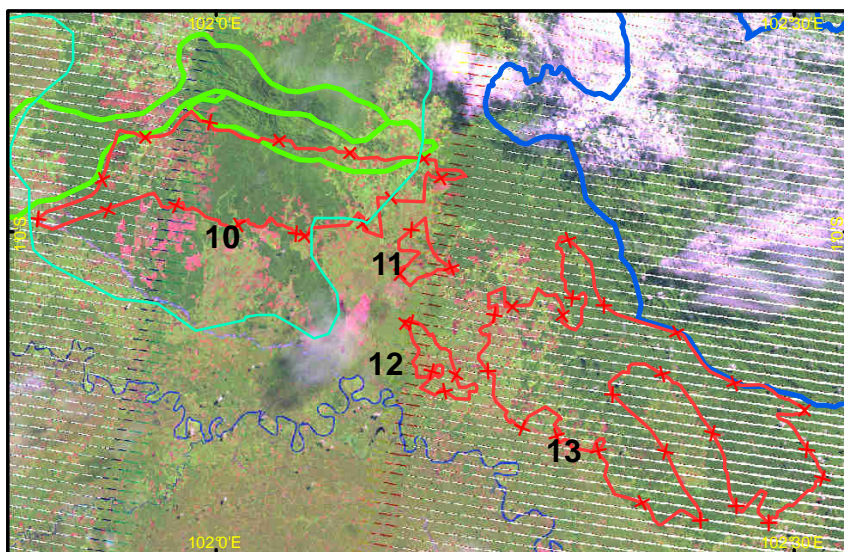


separated from the national park by the ex PT. Hatma Hutani concession (#18) whose remaining good forest APP/SMG affiliated PT. Rimba Hutani Mas is trying to clear for pulp.

- APP/SMG claims it is part of a multi-stakeholder collaboration in TRNR and that the joint declaration on 25 June was signed by many, including "a number of local NGOs". However, none of the five NGOs authoring this report - WWF Indonesia, Frankfurt Zoological Society, Warsi, PKHS, and Zoological Society of London - signed the declaration identifying it as yet another APP/SMG public relations stunt.

As of late 2010, PT. Rimba Hutani Mas continues to try to get permission to clear natural forest in the four concession blocks.

## 8.2. The PT. Lestari Asri Jaya threat



**Map 16 – PT. Lestari Asri Jaya concession (four blocks #10 – 13) received a MoF definitive license on 29 April 2010. Landsat 7 ETM 126/61 of 18 June 2010 show still dense natural forest to be cleared when the government issues permits.**

Since April 2010, PT. Lestari Asri Jaya of the Barito Pacific Group<sup>100</sup> appears to be allowed to start clearing dense High Conservation Value Forests in the south of Bukit Tigapuluh (Map 16), home to a large Sumatran elephant population, as well as Sumatran tigers and reintroduced orangutans (Map 2). APP/SMG is expected to receive the wood from this deforestation.

Since the Ministry of Forestry put the former PT. IFA selective logging concession in Jambi up for auction in January 2007<sup>101</sup>, APP and APRIL have been competing to clear its forests<sup>102</sup>.

In 2009, a consultancy company appointed by PT. Lestari Asri Jaya finalized the required AMDAL study for the four concession blocks. A quick review revealed that the signatures of at least five local village representatives were falsely added to the list of attendants of an “AMDAL socialization meeting” in September 2009. These village representatives did not attend the meeting. Full community participation in the AMDAL investigation apparently was not desired.

In April 2010, PT. Lestari Asri Jaya, a company of the Barito Pacific Group, received a definitive license (Decree of Forestry Minister No. 141/Menhut-II/2010 dated 29 April 2010) for the four HTI concession blocks based on the apparent faulty AMDAL. NGOs are concerned that the company may start natural forest conversion any time soon. Blocks #10 and #13 had close to 36,000 hectares of natural forest in 2010, 21 percent of the remaining unprotected natural forest in the baseline area (Table 3). In apparent far-sighted preparation for the clearing of these concession blocks, APP had opened a logging highway through these concessions as early as 2007. And, by doing so, has been facilitating illegal encroachment even into the national park (Map 8).

In May and July 2010, villagers from Pemayungan village, who have tenure rights inside the PT. Lestari Asri Jaya concession, protested against the company’s forest clearance at the PT. Tebo Multiagro Corporation concession’s security post (Chapter 7.5).

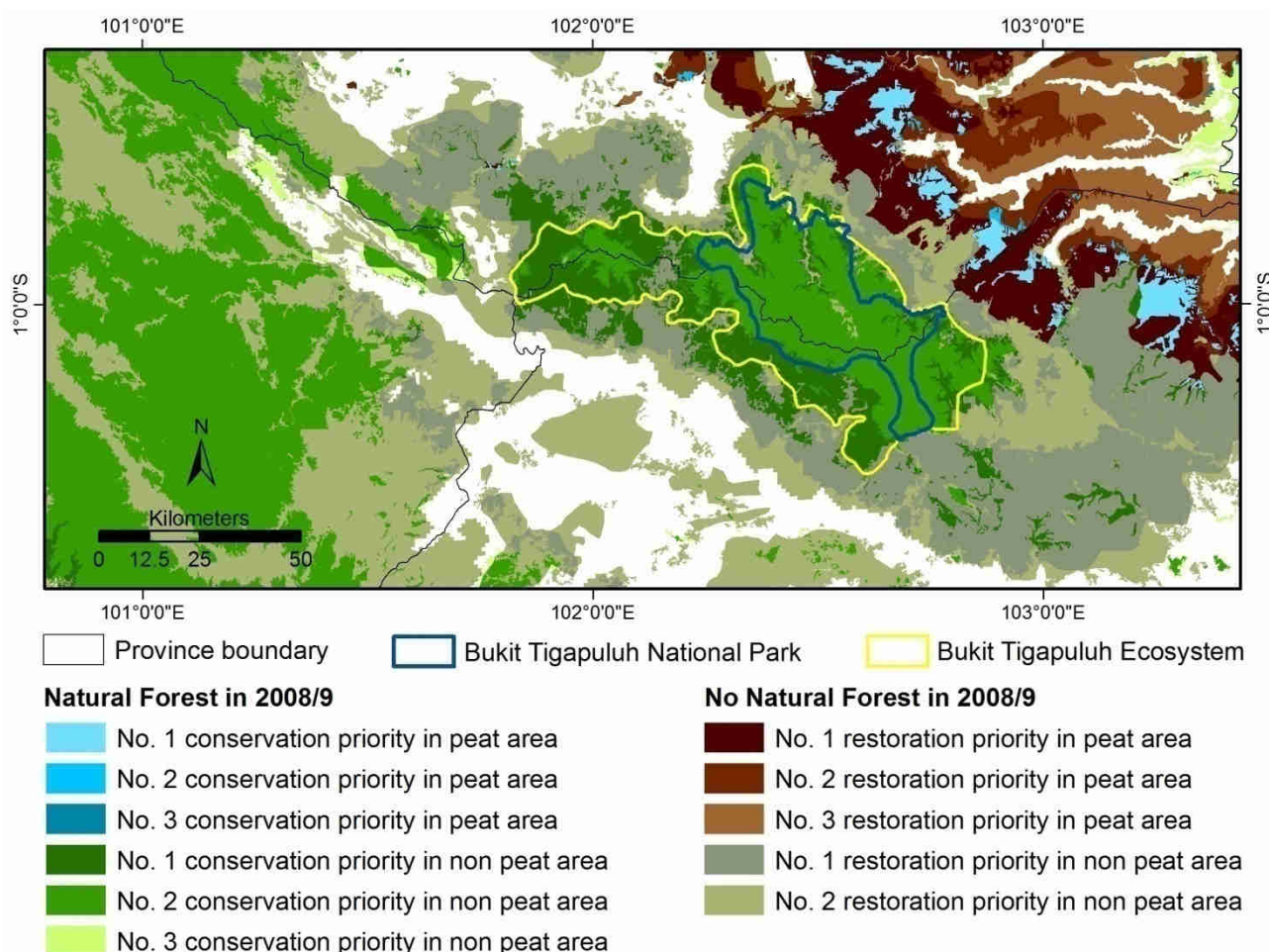


**APP logging road through logged-over but still dense natural forest in PT. Lestari Asri Jaya concession, block #13 © WWF-Indonesia, 1 June 2010 at S1°12'34.78"; E102°29'59.83".**



## 9. Recommendations to the stakeholders of Bukit Tigapuluh

WWF's historical analysis of Sumatra's natural forest, biodiversity and carbon values between 1985 and 2009<sup>103</sup> identified some of the natural forest remaining in Bukit Tigapuluh in 2008-09 as No. 1 conservation priority areas on Sumatran non-peat soil (darkest green areas in Map 17). Most of this forest lies outside the national park (blue boundary). The analysis also identified some of the already-deforested areas as No. 1 restoration priority areas on Sumatran non-peat soil (grey areas in Map 17). However, as some of this top conservation priority forests had been lost by 2010, it had to be re-classified as top restoration priority area.



**Map 17 – WWF prioritization of biodiversity and carbon conservation & restoration in Sumatra. This map is a “snapshot” of the time period 2008-09 with the distribution of natural forest in relation to four values (forest carbon, peat carbon, eco-floristic diversity and mega-fauna diversity) and deforested areas in relation to three values (peat carbon, eco-floristic diversity and mega-fauna diversity). Conservation and restoration areas are ranked by the number of values present in the area.**

Considering the globally important High Conservation Values of Bukit Tigapuluh, the increasingly threatened survival of the local Sumatran tigers, orangutans, elephants and indigenous people, the Government of Indonesia's strong commitment to protect biodiversity and reduce forest emissions, today's strong global demand for environmentally and socially sustainable products, the NGO authors of this report strongly recommend the following:

### **We propose to the Ministry of Forestry to:**

- Expand Bukit Tigapuluh National Park to protect as much remaining natural forest in the landscape as possible.
- For areas not covered by the expansion, amend the licenses of concessions of the former PT. Dalek Hutani Esa, PT. Lestari Asri Jaya, PT. Tebo Multiagro Corporation, former PT. Hatma Hutani, PT.

Artelindo Wiratama and any other HTI or HPH concessions in this ecosystem into “Ecosystem Restoration Concessions”<sup>1</sup> and to avoid further depletion of their carbon stocks and allow regeneration of the remaining natural forest; and

- Stop issuing licenses for natural forest conversion, development of industrial timber plantations that clear natural forest, and road construction to protect the Bukit Tigapuluh Ecosystem.

**We propose to the Government of Indonesia to:**

- Expand the moratorium on natural forest and peat conversion in its agreement with Norway to apply to all existing concessions surrounding the Bukit Tigapuluh National Park.
- Declare Riau and Jambi as pilot REDD+ provinces so protection of natural forest can be financed through REDD+ grants and credits.
- Accept our support to help monitor REDD+ implementation through a comprehensive MRV system.
- Enforce the laws to protect Bukit Tigapuluh’s natural forest from illegal encroachers.

**We call on APP/SMG and also APRIL/RGM to:**

- Stop undermining the reputation of our President and halt the legally and ethically questionable “business as usual” practices of its forestry operations.
- Immediately stop pulping any timber associated with the conversion of tropical rainforest and draining of peatlands.
- Exclusively develop new plantations on so-called “wastelands,” long-deforested and not commercially used areas, after solving all tenure issues and obtaining clean land titles.
- Stop expanding pulp and paper mills or building new ones until a mature plantation wood supply is ensured for which no tropical forests have been converted and for which no peat soil have been drained.
- Protect the land rights of local communities and indigenous people, do not destroy their crops and natural forests, rivers and their natural resources including non timber forest products which support their livelihoods, and apply the “Free Prior Informed Consent Principle” in negotiations to make sure their cultural heritage and values are well protected and their standard of living and health is well maintained or enhanced.

**We call on the global buyers and business partners of APP/SMG and APRIL/RGM to:**

- Closely scrutinize APP/SMG’s advertisements and not believe their claims of sustainability, including certification of their plantations or mills.
- Ensure that products purchased use fiber from recycled fiber or a sustainable wood supply managed to the standards of Forest Stewardship Council.

**We call on Indonesian palm oil producers in the area to:**

- Stop sourcing oil palm fruits produced by destroying natural forest, to honor a resolution on the moratorium on land clearance in the Bukit Tigapuluh Ecosystem<sup>104</sup> adopted in November 2009, at the 6<sup>th</sup> General Assembly of the Roundtable on Sustainable Palm Oil.
- Work with small-holders to develop high-yield oil palm plantations in already-deforested, low value areas with low risk of causing human-wildlife conflict.

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<sup>1</sup> The Ministry’s Ecosystem Restoration Concession concept was created so the country’s concession holders could generate profits in the fast-developing global emissions trading markets by avoiding the clearing of natural forests and rehabilitating degraded areas and thus restoring Indonesia’s greatest resource: its natural forests.



## 10. References

- <sup>1</sup> A “High Conservation Value Area” (HCVA) is an area that possesses one or more of six high conservation values (HCV) defined by Indonesian stakeholders as environmental, social or cultural attributes of exceptional importance at the local, regional or global level. High Conservation Value Forest (HCVF) is a forested HCVA. The “Toolkit for Identification of High Conservation Values in Indonesia” defines three biodiversity HCVs, one ecosystem services HCV and two social and cultural HCVs and methods for identifying them. The process requires full input of local stakeholders and assessments can easily be conducted by professional, independent auditors in a transparent manner. The HCVA protection principle was established by the Forest Stewardship Council (FSC) and has been adopted by the Roundtable for Sustainable Palm Oil (RSPO) – both of which define how the two key drivers of natural forest loss in Indonesia, the pulp & paper and the palm oil industry could operate responsibly.
- <sup>2</sup> Departemen Kehutanan (2007) Strategi dan Rencana Aksi Konservasi Harimau Sumatera (*Panthera tigris sumatrae*) 2007-2017. Departemen Kehutanan (2007) Strategi dan Rencana Aksi Konservasi Orangutan Indonesia 2007-2017. Departemen Kehutanan (2007) Strategi dan Rencana Aksi Konservasi Gajah Sumatera dan Gajah Kalimantan 2007-2017.
- <sup>3</sup> WWF (September 2008) Saving Sumatra: Indonesia Reaches Historic Agreement to Protect World’s Most Endangered Tropical Forests. <http://www.savesumatra.org/index.php/newspublications/pressdetail/2> Joint Agreement of All Sumatra Governors to Save the Sumatra Island Ecosystem, signed by Governors of Nangroe Aceh Darusalam, Bangka Belitung Islands, North Sumatra, Jambi, West Sumatra, South Sumatra, Riau, Bengkulu, Riau Islands and Lampung, acknowledged by Minister of Interior, Minister of Environment, Minister of Public Works and Minister of Forestry. (in Bahasa Indonesia and English translation) <http://www.savesumatra.org/app/webroot/upload/pdf/Kesepakatan%20Gubernur%20Sumatera%2009%20n%20translation.pdf>
- <sup>4</sup> The Jakarta Globe (24 November 2010) Indonesia Joins World Forum Vowing to Save Tigers. <http://www.thejakartaglobe.com/nvironment/indonesia-joins-world-forum-vowing-to-save-tigers/408341>
- <sup>5</sup> Governor of Riau (13 December 2007) Press Release: Province of Riau Supports REDD to Save our Climate.
- <sup>6</sup> President of the Republic of Indonesia (17 December 2009) Speech at the UNFCCC Copenhagen. <http://www.presidentri.go.id/index.php/eng/pidato/2009/12/17/1274.html>
- <sup>7</sup> Component 2 on “Sustainable Forest Management” of the Government of Jambi’s suggestion for reducing its carbon emissions to the President of Indonesia on 1 February 2010.
- <sup>8</sup> Office of the Prime Minister, Norway (26 May 2010) Norway and Indonesia in partnership to reduce emissions from deforestation. <http://www.regjeringen.no/en/dep/smk/press-center/Press-releases/2010/Norway-and-Indonesia-in-partnership-to-reduce-emissions-from-deforestation.html?id=605709> Letter of Intent between the Government of the Kingdom of Norway and the Government of the Republic of Indonesia on “Cooperation on reducing greenhouse gas emissions from deforestation and forest degradation.” [http://www.regjeringen.no/upload/SMK/Vedlegg/2010/Indonesia\\_avtale.pdf](http://www.regjeringen.no/upload/SMK/Vedlegg/2010/Indonesia_avtale.pdf)
- <sup>9</sup> 9,508 signatures as of 24 August 2010 at <http://www.gopetition.com/petitions/orangutan.html>
- <sup>10</sup> <http://www.orangutan.org.au/assets/repository/unfccc/07.03.09%20-%20AOP%20to%20Asia%20Pulp%20and%20Paper%20letter.pdf>
- <sup>11</sup> <http://www.orangutan.org.au/assets/repository/unfccc/08.04.09%20Perth%20Zoo%20to%20APP%20letter.pdf>
- <sup>12</sup> <http://www.orangutan.org.au/assets/repository/unfccc/Joint%20Press%20Release%20-%20Bukit%20Tigapuluh%20May%207.pdf>
- <sup>13</sup> <http://www.orangutan.org.au/assets/repository/unfccc/APP%20Response%20letter%20June%2010.pdf>
- <sup>14</sup> <http://www.orangutan.org.au/assets/repository/unfccc/GRASP%20AU%20letter%20to%20APP.pdf>
- <sup>15</sup> <http://www.orangutan.org.au/assets/repository/unfccc/IUCN%20SSC%20%2803Jul09%29%20letter%20on%20BTP%20to%20APP.pdf>
- <sup>16</sup> <http://www.orangutan.org.au/assets/repository/unfccc/IUCN%20SSC%20%2803Jul09%29%20letter%20on%20BTP%20to%20MoF.pdf>
- <sup>17</sup> <http://www.orangutan.org.au/assets/repository/unfccc/IUCN%20PSG%20%2816Jun09%29%20letter%20on%20BTP%20to%20MoF%20&%20APP.pdf>
- <sup>18</sup> <http://www.orangutan.org.au/assets/repository/unfccc/WAZA%20%2824Jul09%29%20Letter%20to%20MoF%20&%20APP.pdf>
- <sup>19</sup> Sitompul, A. & P. Pratje (2009) Resource Base Inventory, Implementation of Conservation in the Bukit

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Tigapuluh Ecosystem.

- <sup>20</sup> Sanderson, E., J. Forrest, C. Loucks, J. Ginsberg, E. Dinerstein, J. Seidensticker, P. Leimgruber, M. Songer, A. Heydlauff, T. O'Brien, G. Bryja, S. Klenzendorf, and E. Wikramanayake (2006), "Setting Priorities for the Conservation and Recovery of Wild Tigers: 2005-2015." WCS, WWF, Smithsonian, and NFWF-STF. <http://www.forestrynepal.org/publications/467>
- <sup>21</sup> Balai Taman Nasional Bukit Tigapuluh, Kabupaten Tebo, Kabupaten Tanjabar, Kabupaten INHIL, Kabupaten INHU, Frankfurt Zoological Society, WWF, Warsi, ZSL, PKHS (2009) The Bukit Tigapuluh Ecosystem Conservation Implementation Plan.
- <sup>22</sup> Indonesian Ministry of Forestry (2007) Strategi dan Rencana Aksi Konservasi Gajah Sumatera dan Gajah Kalimantan 2007-2017. Moßbrucker, A. M. (2009) Zum Status des Sumatra Elefanten (*Elephas maximus sumatranus*) im Landschaftsraum Bukit Tigapuluh, Sumatra, Indonesien: Verbreitung, Abundanz, Altersstruktur und Gefährdung. Diplomarbeit. Fakultät für Biologie, Institut für Biologie I (Zoologie). Albert Ludwigs-Universität Freiburg im Breisgau, Germany.
- <sup>23</sup> Frankfurt Zoological Society, as of 1 September 2010.
- <sup>24</sup> <http://www.zgf.de/?id=65&projectId=62&language=en> Frankfurt Zoological Society Indonesia Programme, Annual Report 2009 [http://www.zgf.de/download/825/annual+report+2008\\_09.pdf](http://www.zgf.de/download/825/annual+report+2008_09.pdf)
- <sup>25</sup> Orangutan Population and Habitat Viability Assessment. 2004. Final Report. Jakarta Indonesia. Cited in Balai Taman Nasional Bukit Tigapuluh *et al.* (2009)
- <sup>26</sup> Which. S. A., Utami Atmoko S, Setia. T.M, & Van Schaik, C.P. 2009. Orangutans. Chapter 23 Orangutan rehabilitation and reintroduction. Oxford University Press.
- <sup>27</sup> Sitompul, A. & Pratje, P. 2009. The Bukit Tigapuluh Conservation Implementation Plan
- <sup>28</sup> Ancrenaz M, Ambu L, Sunjoto I, Ahmad E, Manokaran K, et al. (2010) Recent Surveys in the Forests of Ulu Segama Malua, Sabah, Malaysia, Show That Orang-utans (*P. p. morio*) Can Be Maintained in Slightly Logged Forests. PLoS ONE 5(7): e11510. doi:10.1371/journal.pone.0011510
- <sup>29</sup> Soehartono. T, H.D. Susilo, N. Andayani, S.S.U. Atmoko, J. Sihite, C. Saleh, A. Sutrisno. 2007. Strategi dan Rencana Aksi Konservasi Orangutan Indonesia 2007- 2017. Ditjen PHKA, Departemen Kehutanan. Jakarta.
- <sup>30</sup> Indonesian Ministry of Forestry (2007) Moßbrucker, A. M. (2009)
- <sup>31</sup> Soehartono. T., H.D. Susilo, A.F. Sitompul, D. Gunaryadi, E.M. Purastuti, W. Azmi, N. Fadhli, C. Stremme. 2007. Strategi dan Rencana Aksi Konservasi Gajah Sumatera dan Gajah Kalimantan 2007- 2017. Ditjen PHKA, Departemen Kehutanan. Jakarta.
- <sup>32</sup> ZSL (2007) Rapid Survey Harimau Sumatra dan Mamalia Besar Lainnya Lansekap Bukit Tigapuluh
- <sup>33</sup> Soehartono. T, H.T. Wibisono, Sunarto, D. Martyr, H.D Susilo, T. Maddox, D. Priatna. 2007. Strategi dan Rencana Aksi Konservasi Harimau Sumatera (*Panthera tigris sumatrae*) 2007- 2017. Ditjen PHKA, Departemen Kehutanan. Jakarta.
- <sup>34</sup> The Jakarta Globe (24 November 2010) Indonesia Joins World Forum Vowing to Save Tigers. <http://www.thejakartaglobe.com/nvironment/indonesia-joins-world-forum-vowing-to-save-tigers/408341>
- <sup>35</sup> Danielsen, F. & Heegaard, M.S. (1993), The Impact of Logging and Forest Conversion on Lowland Forest Birds and Other Wildlife in Seberida, Riau Province, Sumatra. In Ø. Sandbukt and H. Wiriadinata (eds.). Proceedings of the NORINDRA Seminar on Rain Forest and Resource Management. Jakarta: Indonesian Institute of Sciences.
- <sup>36</sup> Siregar, S., R.N. Putra & Sukendi. (1993) Fauna Ikan Perairan sekitar Bukit Tiga Puluh, Seberida, Sumatra. In Ø. Sandbukt and H. Wiriadinata (eds.). Proceedings of the NORINDRA Seminar on Rain Forest and Resource Management. Jakarta: Indonesian Institute of Sciences.
- <sup>37</sup> Sitompul. A., P. Pratje, I. E. Chandra, H. Hasibuan, J. Santoso & Fazriyas (2009) Resource Base Inventory, Implementation of Conservation in Bukit Tigapuluh Ecosystem. Bukit Tigapuluh National Park & Frankfurt Zoological Society.
- <sup>38</sup> Balai Taman Nasional Bukit Tigapuluh *et al.* (2009)
- <sup>39</sup> Laumonier, Y., Uryu, Y., Stwe, M., Budiman, A., Setiabudi, B. & O. Hadian. (2010) Eco-floristic sectors and deforestation threats in Sumatra: indentifying new conservation area network priorities for ecosystem-based land use planning. Biodiversity Conservation (2010) 19: 1153-1174. <http://www.springerlink.com/content/c77376k574051178/fulltext.pdf>
- <sup>40</sup> WWF Indonesia (November 2010), "Sumatra's Forests, their Wildlife and the Climate. Windows in Time: 1985, 1990, 2000 and 2009." A quantitative assessment of some of Sumatra's natural resources submitted as technical report by invitation to the National Forestry Council (DKN) and to the National Development Planning Agency (BAPPENAS) of Indonesia.

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[http://assets.wwfid.panda.org/downloads/wwf\\_indonesia\\_2010\\_sumatran\\_forests\\_wildlife\\_climate\\_report\\_for\\_dkn\\_bappenas.pdf](http://assets.wwfid.panda.org/downloads/wwf_indonesia_2010_sumatran_forests_wildlife_climate_report_for_dkn_bappenas.pdf)

<sup>41</sup> Basuni et al. (1997)

<sup>42</sup> IPCC (2003). Good Practice Guidance for Land Use, Land-Use Change and Forestry. Penman J., Gytarsky M., Hiraishi T., Krug, T., Kruger D., Pipatti R., Buendia L., Miwa K., Ngara T., Tanabe K., Wagner F. (Eds). Intergovernmental Panel on Climate Change (IPCC), IPCC/IGES, Hayama, Japan.

<sup>43</sup> IPCC (2006) 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (eds). Published: IGES, Japan.

<sup>44</sup> Darusman, D., Bahrundi, Siswoyo & Trison, S. (2006) Final Report: Valuation of Forest Resources in Area of ex PT. Industries et Forest Asiatique (IFA), West part of Bukit Tigapuluh National Park. Cooperation between KKI Warsi & Laboratory of Forest Policy, Economic and Social Faculty of Forestry, Bogor Agricultural University.

<sup>45</sup> KKI WARSIS survey, April-June 2010

<sup>46</sup> Presentation "Aliansi NGO untuk Ekosistem B30" by Warsi, FZS, PKHS, ZSL and WWF, 2009

<sup>47</sup> YASA, 2002

<sup>48</sup> FAO (1982–83). A National Conservation Plan for Indonesia. (8 Volumes). UNDP/FAO National Parks Development Project INS/78/061. Bogor: FAO.

<sup>49</sup> Memorandum Kerjasama Teknis Departemen Kehutanan dan Frankfurt Zoological Society, 2001. Sumatran orangutan conservation programme in Bukit Tigapuluh National Park and adjacent provinces, Riau and Jambi.

<sup>50</sup> Peta Rencana Rasionalisasi Taman Nasional Bukit Tigapuluh Wilayah Propinsi Jambi. 2005. Signed by Bukit Tigapuluh National Park Management Authority and BKSDA Jambi.

<sup>51</sup> KKI Warsi, FZS, ZSL, PKHS & WWF-Indonesia (3 September 2007) Joint letter to the Minister of Forestry M.S. Kaban. Rasionalisasi TNBT dan Perlindungan Habitat Harimau, Gajah dan Orang Utan Di Sekitar TNBT serta Perluasan Hutan Lindung Bukit Sosah – Bukit Limau di Provinsi Riau dan Jambi.

<sup>52</sup> Balai Taman Nasional Bukit Tigapuluh, Kabupaten Tebo, Kabupaten Tanjabar, Kabupaten INHIL, Kabupaten INHU, Frankfurt Zoological Society, WWF, Warsi, ZSL, PKHS (Mei 2009) Rencana Implementasi Konservasi Ekosistem Bukit Tigapuluh. Bukit Tigapuluh National Park Management Authority, Tebo District, Tanjabar District, INHIL District, INHU District, Frankfurt Zoological Society, WWF, KKI-Warsi, ZSL, PKHS (May 2009) The Bukit Tigapuluh Ecosystem Conservation Implementation Plan.

<sup>53</sup> KKI Warsi, FZS, ZSL, PKHS & WWF-Indonesia (11 May 2009) Joint letter to the Ministry of Forestry. Cancellation of IUPHH-HTI at Bukit Tigapuluh Ecosystem.

[http://www.orangutan.org.au/assets/repository/unfccc/Letter\\_to\\_Ministry\\_of\\_ForestryFINAL.pdf](http://www.orangutan.org.au/assets/repository/unfccc/Letter_to_Ministry_of_ForestryFINAL.pdf)

<sup>54</sup> KKI Warsi, Frankfurt Zoological Society, Zoological Society of London, PKHS, WWF-Indonesia, ForTRUST, FURIMA, Harimau Kita, Forum Konservasi Gajah Indonesia (12 April 2010) Proposal for Management of Bukit Tigapuluh Landscape with regards to climate change and biodiversity conservation.

<sup>55</sup> Eyes on the Forest (15 November 2005) September 2005 Investigative Report.

[http://eyesontheforest.or.id/index.php?option=com\\_docman&task=doc\\_download&gid=22](http://eyesontheforest.or.id/index.php?option=com_docman&task=doc_download&gid=22)

<sup>56</sup> Eyes on the Forest (15 December 2006), Conversion in Bukit Tigapuluh causes elephant to be killed.

[http://eyesontheforest.or.id/index.php?option=com\\_content&task=view&id=85&Itemid=6](http://eyesontheforest.or.id/index.php?option=com_content&task=view&id=85&Itemid=6)

<sup>57</sup> WWF-Indonesia, KKI WARSIS, Zoological Society of London, Frankfurt Zoological Society and Yayasan Program Konservasi Harimau Sumatera (8 January 2008), "Asia Pulp & Paper (APP) Threatens Bukit Tigapuluh Landscape – Report of investigation findings."

[http://rafflesia.wwf.or.id/library/attachment/pdf/BTp\\_Investigation\\_Jan%202008\\_draft\\_FINAL.pdf](http://rafflesia.wwf.or.id/library/attachment/pdf/BTp_Investigation_Jan%202008_draft_FINAL.pdf)

<sup>58</sup> CNN (August 2008) "Sumatra's people of the jungle" on Orang Rimba in Jambi, threatened by natural forest clearance by APP affiliated companies.

<http://www.savesumatra.org/index.php/newspublications/video/10>

<sup>59</sup> Frankfurt Zoological Society, KKI WARSIS, Zoological Society of London, WWF Indonesia, Yayasan Program Konservasi Harimau Sumatera (19 May 2009) Joint PR, "Asia Pulp & Paper/Sinar Mas Group Set to Destroy Orangutan Reintroduction Site, Critical Tiger Forest."

<http://www.savesumatra.org/index.php/newspublications/pressdetail/8>

<sup>60</sup> Eyes on the Forest (2 July 2009), "APP logging road threatens Orang Rimba."

[http://eyesontheforest.or.id/index.php?option=com\\_content&task=view&id=244&Itemid=6](http://eyesontheforest.or.id/index.php?option=com_content&task=view&id=244&Itemid=6)

<sup>61</sup> Tempo Interactive (15 July 2009), "Environmentalists Blast Asia Pulp & Paper for Road Project in Jambi." [http://www.tempointeractive.com/hg/nasional/2009/07/15/brk\\_20090715-187380.uk.html](http://www.tempointeractive.com/hg/nasional/2009/07/15/brk_20090715-187380.uk.html)

<sup>62</sup> Eyes on the Forest (27 July 2009), "Fires in APP/Sinar Mas Concessions Add to Region's Haze Woes, Threaten

New UN Biosphere Reserve.”

[http://eyesontheforest.or.id/index.php?option=com\\_docman&task=doc\\_download&gid=168&Itemid=2](http://eyesontheforest.or.id/index.php?option=com_docman&task=doc_download&gid=168&Itemid=2)

<sup>63</sup> The Wilderness Society, Rainforest Action Network, Australian Orangutan Project (29 September 2009), “Destruction of Orangutan Sanctuary Highlights Risks of REDD.”

[http://www.orangutan.org.au/assets/repository/unfccc/Joint\\_PR\\_Bukit\\_Tigapuluh\\_Bangkok\\_UNFCCC.pdf](http://www.orangutan.org.au/assets/repository/unfccc/Joint_PR_Bukit_Tigapuluh_Bangkok_UNFCCC.pdf)

<sup>64</sup> Greenpeace (6 July 2010), “How Sinar Mas is Pulping the Planet.”

<http://www.greenpeace.org/international/Global/international/publications/forests/2010/Sinar-Mas-Pulping-The-Planet.pdf>

<sup>65</sup> Eyes on the Forest (8 July 2010), “Investigative Report: Business as Usual in Riau, Sumatra: Pulp Industry Continues Clearance of Natural Forest.”

[http://eyesontheforest.or.id/index.php?option=com\\_docman&task=doc\\_download&gid=182&Itemid=20](http://eyesontheforest.or.id/index.php?option=com_docman&task=doc_download&gid=182&Itemid=20)

<sup>66</sup> <http://www.asiapulppaper.com> “Tackling Climate Change” under Sustainability & CSR section, viewed on 3 August 2010.

<sup>67</sup> District Head Decree Number Kpts.74/IV/2002, dated 11 April 2002.

<sup>68</sup> Concerning to guidelines of license on industrial timber plantation (IUPHHK-HT)

<sup>69</sup> Concerning to criteria and standard of license on industrial timber plantation (IUPHHK-HT) on production forest

<sup>70</sup> On Forest Governance and Designation of Forest Management Plan, Forest Utilization and Forest Area Use. Article 42: “License for business in utilizing timber forest product in natural forest or license for business in utilizing timber forest product in timber forest is granted by recommendation of District Head or Mayor and Governor,” and Article 30 point (3): “Business in utilizing forest product in timber plantation, shall be implemented on barren land, grassland, and/or shrubs inside production forest.”

<sup>71</sup> Eyes on the Forest (15 November 2005) Eyes on the Forest September 2005 Investigative Report.

<sup>72</sup> The Minister of Forestry’s Regulation Number P.03/Menhut-II/2005 on “Verification Guidelines on Timber Plantation (IUPHHK) Issued by Governor or District Head/Mayor”

<sup>73</sup> P.03/Menhut-II/2005, Article 6.

<sup>74</sup> [http://www.wwf.or.id/BTP\\_evidence\\_google\\_earth](http://www.wwf.or.id/BTP_evidence_google_earth)

<sup>75</sup> Eyes on the Forest (8 July 2010) Press Release: Business as Usual in Riau, Sumatra: Pulp Industry Undermines Indonesian President’s Historic Commitment to Dramatic GHG Emissions Reductions. [http://eyesontheforest.or.id/index.php?option=com\\_content&task=view&id=306&Itemid=1](http://eyesontheforest.or.id/index.php?option=com_content&task=view&id=306&Itemid=1)

<sup>76</sup> Eyes on the Forest (8 July 2010) Investigative Report: Business as Usual in Riau, Sumatra: Pulp Industry Continues Clearance of Natural Forest.

[http://eyesontheforest.or.id/index.php?option=com\\_docman&task=doc\\_download&gid=182&Itemid=20](http://eyesontheforest.or.id/index.php?option=com_docman&task=doc_download&gid=182&Itemid=20)

<sup>77</sup> Eyes on the Forest (November 2010) EoF calls on SMG/APP and APRIL to keep their promises: Stop conversion of natural forest and drainage of peat to produce pulp, stop violation of the country’s climate commitment.

[http://www.eyesontheforest.or.id/index.php?option=com\\_docman&task=doc\\_download&gid=188&Itemid=20](http://www.eyesontheforest.or.id/index.php?option=com_docman&task=doc_download&gid=188&Itemid=20)

<sup>78</sup> Eyes on the Forest (November 2010)

<sup>79</sup> WWF-Indonesia *et al.* (8 January 2008)

<sup>80</sup> [http://www.wwf.or.id/BTP\\_evidence\\_google\\_earth](http://www.wwf.or.id/BTP_evidence_google_earth)

<sup>81</sup> [http://www.wwf.or.id/BTP\\_evidence\\_google\\_earth](http://www.wwf.or.id/BTP_evidence_google_earth)

<sup>82</sup> [http://www.wwf.or.id/BTP\\_evidence\\_google\\_earth](http://www.wwf.or.id/BTP_evidence_google_earth)

<sup>83</sup> VetOnews (26 March 2008) Kejati Jambi Didesak Usut Tuntas Kasus Dugaan Korupsi Bupati Tebo.

<sup>84</sup> infojambi.com (22 April 2010) Konflik Lahan Meningkat, 3 Industri Kayu Besar Menunggak Rp 181 Miliar.

<sup>85</sup> Tribun Jambi daily (22 April 2010) Tim Lacak Indikasi Gayus di Dishut Kemenhut Kirim Sanggahan.

<sup>86</sup> WWF-Indonesia *et al.* (8 January 2008)

<sup>87</sup> [http://www.wwf.or.id/BTP\\_evidence\\_google\\_earth](http://www.wwf.or.id/BTP_evidence_google_earth)

<sup>88</sup> matanews.com (17 Dec 2009) Habitat Gajah Jambi Terancam HTI.

<http://matanews.com/2009/12/17/habitat-gajah-jambi-terancam-hti/>

<sup>90</sup> Pos Metro Jambi (2 August 2010). Warga Tewas Diinjak Gajah, Dinas Kehutanan Menolak Bertanggungjawab. Jambi Independent Online (2 August 2010). 40 Gajah Ngamuk, 1 Tewas.

[http://www.jambi-independent.co.id/jio/index.php?option=com\\_content&view=article&id=9831:40-gajah-ngamuk-1-tewas&catid=2:jambibarat&Itemid=4](http://www.jambi-independent.co.id/jio/index.php?option=com_content&view=article&id=9831:40-gajah-ngamuk-1-tewas&catid=2:jambibarat&Itemid=4) English transpation:

<http://www.planet-action.org/web/86-project-news-publications.php?type=news&projectID=5995>

<sup>91</sup> CNN (August 2008)



- 
- <sup>92</sup> Kompas.com (5 December 2009) Suku Anak Dalam di Jambi Kian Terjepit.  
<http://olahraga.kompas.com/read/2009/12/05/06292342/suku.anak.dalam.kian.terjepit>
- <sup>93</sup> Jambi Independent, 11 May 2010, Tebo Rusuh, Lima Warga Luka  
[http://www.jambi-independent.co.id/jio/index.php?option=com\\_content&view=article&id=8896:tebo-rusuh-lima-warga-luka&catid=2:jambibarat&Itemid=4](http://www.jambi-independent.co.id/jio/index.php?option=com_content&view=article&id=8896:tebo-rusuh-lima-warga-luka&catid=2:jambibarat&Itemid=4)
- <sup>94</sup> A witness account to Warsi, 11 July 2010.
- <sup>95</sup> infojambi.com, 22 April 2010, Konflik Lahan Meningkat, 3 Industri Kayu Besar Menunggak Rp 181 Miliar.
- <sup>96</sup> KKI Warsi, FZS, ZSL, PKHS & WWF-Indonesia (11 May 2009) Joint letter to the Ministry of Forestry.  
[http://www.orangutan.org.au/assets/repository/unfccc/Letter\\_to\\_Ministry\\_of\\_ForestryFINAL.pdf](http://www.orangutan.org.au/assets/repository/unfccc/Letter_to_Ministry_of_ForestryFINAL.pdf)
- <sup>97</sup> WARSI, WWF-Indonesia, Frankfurt Zoological Society, Zoological Society of London & Yayasan PKHS (19 May 2009) Joint PR: Asia Pulp & Paper/Sinar Mas Group (APP/SMG) Set to Destroy Orangutan Reintroduction Site, Critical Tiger Forest. <http://www.savesumatra.org/index.php/newspublications/pressdetail/8>
- <sup>98</sup> APP (22 June 2009) Asia Pulp & Paper Statement on Bukit Tigapuluh, Letter to Stakeholder.
- <sup>99</sup> Eyes on the Forest (November 2010)
- <sup>100</sup> <http://barito-pacific.com/index.php/home>
- <sup>101</sup> Eyes on the Forest (30 January 2007) Press Release. "Riau NGO coalition calls Government to stop selling largest remaining natural forest block in Sumatra's Riau and Jambi: 130,000 hectares of Sumatran tiger and elephant forests under siege." [http://eyesontheforest.or.id/dmdocuments/PR\\_EoF\\_Jan2007\\_Eng\\_FINAL.pdf](http://eyesontheforest.or.id/dmdocuments/PR_EoF_Jan2007_Eng_FINAL.pdf)
- <sup>102</sup> Eyes on the Forest (27 March 2007) EoF News: APP, APRIL to convert Bukit Tigapuluh forests to acacia.  
[http://eyesontheforest.or.id/index.php?option=com\\_content&task=view&id=105&Itemid=6](http://eyesontheforest.or.id/index.php?option=com_content&task=view&id=105&Itemid=6)
- <sup>103</sup> WWF Indonesia (November 2010)
- <sup>104</sup> Natureandpoverty.net (9 November 2009) A moratorium on land clearance in the Bukit Tigapuluh Ecosystem.  
<http://www.natureandpoverty.net/theme-lfmsci/news/article/a-moratorium-on-land-clearance-in-the-bukit-tigapuluh-ecosystem-292/>