



### **Borneo Futures in a nutshell**

Erik Meijaard and myself initiated Borneo Futures in 2011. The ARCUS Foundation was instrumental in making this Initiative a reality. The idea was born much earlier but it took a few years of consultation and discussion with many like-minded people to refine our concept. Eventually we decided to support a vision: **“Borneo’s landscapes are sustainably managed to deliver social and ecological justice through improved understanding of the linkages between ecological systems and human wellbeing”**.

In mind, two overarching objectives to achieve this vision:

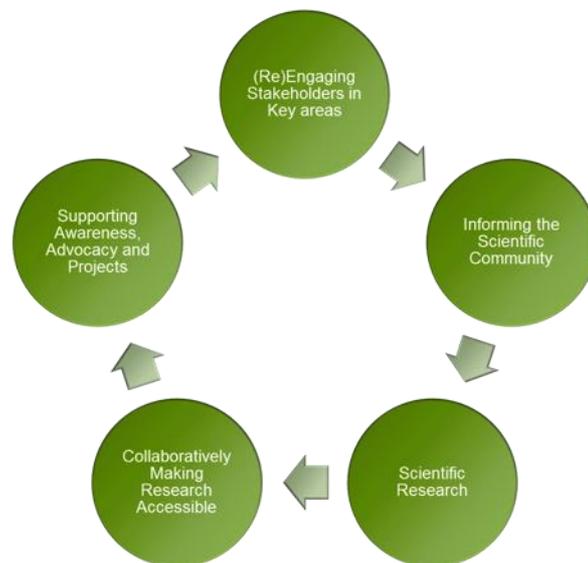
- **Production of high-impact and cutting-edge science:** Improve and increase the relevance of scientific research in Borneo;
- **Efficient dissemination of the results:** Increase the awareness, collaboration and understanding of the science amongst decision makers, media, NGOs and the general public to influence policies and improve on-the-ground situation.

Our primary assumption was that filling crucial information gaps and answering research questions that are relevant to the society and to the land-decidors will improve understanding, data uptake and use, and ultimately, this will result in better decisions and better land use for the island of Borneo.

In theory, a simple “science-policy cycle”, containing a logical series of successive stages could operate the overall change that we would like to see for Borneo:

- Engaging stakeholders to identify gaps in scientific knowledge (in two words: *be relevant*);
- Informing the scientific community of the required research (*be useful*);

- Conducting and coordinating scientific research (*do the work!*);
- Translating scientific research (ours and other's) into more easily accessible formats (*reach outside the scientific ivory tower*) for:
  - The policy level;
  - NGOs;
  - Civil society, including a focus on schools and children;
- Supporting awareness, advocacy and projects (*gets our hands dirty*);
- Reengaging with the stakeholders in the key areas to assess new research gaps (*and repeat all these steps!*).



## Scientific research

With its approach, Borneo Futures has attracted scientists from many places and organizations and together we investigate some of the key burning questions that are relevant for the future of the island, its people and its environment.

So far, more than 30 peer-reviewed scientific articles have already been published. If you haven't read them all (!), please download them freely at the BF website:

<http://www.borneofutures.org/borneo-futures.html>

Some of the major topics addressed by our research include:

- **People perception about the forest and related ecosystem services:** local perception of the environment is generally not taken into account by land-use planners. This situation often results in social and economic conflicts. Our research has developed new ways to spatially analyze people's perception of their own environmental resources and their overall aspiration for the future. Integrating how people feel about their local natural resources and how they foresee their own future in development plans is paramount to promote social harmony.

- **Deforestation in Borneo:** What is true? What is a myth? How much forest has been cut, when and why? Although deforestation in Borneo is a recurrent topic, disentangling myth from reality is not always easy. Using state of the art spatial analysis techniques, we provide hard evidences about deforestation throughout the island.

Some interesting facts: an area four times the size of Switzerland has been deforested between 1973 and 2010; deforestation rate in Borneo is not slowing down but keep on increasing; the island is covered with more than 270,000 km of logging roads (3/4 of the distance Earth-Moon); the highest deforestation rate over the past 40 years was in the Malaysian state of Sabah; etc.



*Map showing forest loss between 1973 and 2010 (maps A and B) and current forest extent in Borneo (map D): from Gaveau et al. 2014.*

- **Change of land-use cover and floods:**

to investigate this topic, we mostly analysed newspaper articles. What we found was shocking. For example, because watershed and riverine forests are not properly managed and protected, floods have been increasing both in frequency and



severity in much of Borneo. Up to 1.5 million people and 360,000 houses were affected by floods in Kalimantan alone between 2010 and 2013 (this is more than 10 percent of the total population). This increase of flooding occurred primarily in areas that had experienced more extensive deforestation for oil palm or severe degradation through logging and fires.

- **Recent news about orangutans?** New analysis show where and why conflicts occur between people and orangutans throughout the island. We estimate that more than 50,000 orangutans have been killed during the last 30 years in Kalimantan alone: more than half of these animals were hunted for food!

Additional research also revealed that orangutans are learning how to use mature palm oil plantations: animals are increasingly entering these plantations to feed on the fruits of the palm, to nest in the palm and to disperse from a forest patch to the next through the oil palm landscape. And we also showed that it is quite common for the orangutan to walk on the ground to move across the landscape: they are more terrestrial than what we previously thought!

## Awareness and social media

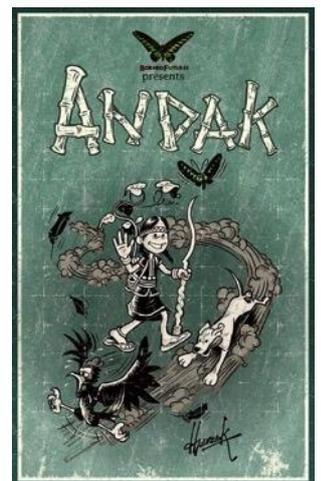
Erik is now regularly writing articles that feed on the results of the research produced by BF. Have a look at his written skills in the Jakarta Globe. If you have missed them, log on and check the website of the newspaper, or go to our BF website's library.

Several interviews also featured some of our work, among them: (<http://news.mongabay.com/2014/0620-mark-orangutans-palm-oil.html>), (<http://blog.ucsusu.org/next-generation-conservation-planning-for-palm-oil-and-orang-utans-608>). Translating and disseminating the results of our research is one of BF's ultimate objectives. In our Face Book page you'll find a series of very short videos that were developed by Amir to translate in simple words and images some of the information produced by our research. ([https://www.facebook.com/BorneoFutures/videos/1099291413430139/?video\\_source=pages\\_finch\\_trailer](https://www.facebook.com/BorneoFutures/videos/1099291413430139/?video_source=pages_finch_trailer))

Dherek, a local artist created Andak, a young girl living in Borneo who is going to tell the story of Borneo and what Borneo could become in the future, depending on the choices that are made today.



In two words, we really believe that good science is necessary to move from a destructive “business-as-usual” approach to a more enlightened way to achieve development. But science alone is not enough. We need also to bring knowledge and emotion to people’s mind; we need to talk to their heart. BF wants to be an initiative where scientists and artists merge their efforts to change the way development is generally conceived and implemented in Borneo.



After three years of existence, BF is convinced that achieving a better future for Borneo is possible. To achieve this vision, everyone counts, everyone can help and everyone can make a difference!