Rebuttal of International Coconut Community

On the alleged negative impact of coconut's production systems on biodiversity and the unjustifiable propaganda regarding the use of monkeys to harvest coconuts.

Jelfina C. Alouw
Executive Director, International Coconut Community

The International Coconut Community strongly objects to the proposal to boycott coconut products due to the alleged negative impact of its production systems on biodiversity and the unjustifiable propaganda regarding the use of monkeys to harvest coconuts.

The International Coconut Community (ICC1), a UN ESCAP intergovernmental organization representing 20 coconut producing countries, refutes to the articles published by Erik Meijaard regarding the claim that producing coconut oil is more harmful to biodiversity than producing palm oil.

Our objection is based on the following ten points:

1. Erik Meijaard and co-authors recently published the paper entitled: "Coconut oil, conservation and the conscientious consumer" (Meijaard et al. 2020). In this paper, Meijaard et al. admitted that their measure of threats of coconut oil to biodiversity: i) is incomplete, ii) focuses on what has happened in the past, iii) allocates all impacts to commercial coconut oil production alone cannot readily be applied to individual producers, and v) relies on incomplete information about crop distribution, where informed consumer choices require measures and standards that are equally applicable worldwide. They admit that: "It remains challenging to identify and weigh which species and environments have been or will be threatened by production of which products, and in which contexts, but such measures are needed." Nevertheless, they make a sweeping claim that 20.28 (but recently corrected down to 18.32) species are threatened per million liters of coconut oil produced, compared with 3.79 species threatened per million liters of palm oil produced. Globally, the annual production of coconut oil is around 4.95 million T, whilst the palm oil industry produces a massive 76.06 million T per annum. Using their own claim and questionable extrapolation, oil palm production would appear to threaten 288 species and coconut only 91 species. This indicates that taken over the whole area and volume of oil production, oil palm is more than three times as threatening as coconut. Furthermore, the vast majority of the species allegedly threatened by coconut production live in small island nations that together produce only 8% of the global output of coconut oil, says Meine van Noordwijk, a senior research fellow at the World Agroforestry Center3.

2. ICC argues that the extrapolation done by Meijaard and co-authors is questionable, as ecosystem, habitat and production system interactions are highly complex. Coconut production systems are generally more biodiverse than palm oil production systems and lend themselves to more flexible approaches to biodiversity conservation, agroecological intensification, and sustainable production.

3. This paper is limited in that it used only commercially traded coconut oil as the basis for its conclusion. The paper ignored the fact that a significant amount of the coconut harvest is used locally in food, drink and other household products. The coconut is very much a part of the culinary tradition of people in the tropics. In addition to the use of coconut for food, it is also used for building material and various household and farm implements. These major uses of the coconut were not considered in this paper.

4. In this paper, the authors declared "no competing interests." However, Mr. Meijaard is Director of Hutan dan Habitat Alam Indonesia, a company which has investment interests in Borneo where much of the conversion of forests into oil-palm plantations is happening.

5. Separately, Mr. Meijaard wrote an article in a newspaper with an inflammatory title: "Why coconut oil may be worse than palm oil for the environment" (Meijaard, 2020). It is intriguing that while he also cited threats from coffee and chocolate, he chose to headline the threat from coconut oil to shield palm oil, which is under intense attack for its harmful environmental effects. Apparently, Mr. Meijaard considers this as a zero-sum competition between coconut oil and palm oil, when there should be none.

6. On another issue, the use of monkeys to harvest

coconut has also come under scrutiny. This practice is found in only certain countries and parts of small regions. The use of monkeys illustrates a favorable partnership between animals and humans to promote economic growth. Monkeys are treated well as they are fed for every excellent job they perform and are accorded gentle treatment and education by owners just like their pets. In fact, monkeys are useful means of picking coconuts due to the training they receive. For the welfare of the animal's respective countries have their own legislation like in Thailand The Cruelty Prevention and Welfare of Animal Act B.E. 2557 (2014) under which who proscribes any act of cruelty to animal without justification would be punished under the Act. However, more recently the scenario has changed. Many farmers are now using palm-climbing machines for harvesting of coconuts. Different counties have their own cultural practices with animals. For example, in Europe pigs are traditionally used to search for truffles. The use of monkeys and pigs in two different cultures are both respectable where the animals are treated humanely. PETA's concern over animal cruelty is understandable, but its campaign for countries to ban coconut products manufactured is not justifiable. It is rather affecting the entire coconut community. One should respect racial and cultural diversity and the rights of poor smallholder farmers to aspire to developing sustainable livelihoods.

7. The coconut is a smallholder crop (92% are small farms), with farmers growing 1-2 hectares per family. Thus, unlike other large-scale plantation crops, there is no need to destroy forests that kill indigenous crops and animals to establish coconuts.

8. Unlike other large plantation monocrops within environmentally fragile production ecosystems, coconut is frequently grown in association with other crops as intercrops such as fruit crops and nitrogen-fixing agroforest tree species, and with poultry (free-range poultry) and livestock integration (goats, cattle). Such biodiversity-enriched coconut farming systems reduce canopy-level temperatures and create a favorable microclimate in which other crops microorganisms and other species can flourish.

9. Large other plantations use expensive and often environmentally destructive chemical fertilizers. Large-scale land conversion affects biodiversity. Such land conversion causes destruction of habitat and loss of biodiversity (Tilman et al. 2001; Sodhi and Brooks. 2006). In comparison, coconut farmers rely on natural organic farming to produce coconuts. Currently, ICC is promoting the production of organically grown coconuts using science-based, doable, affordable and sustainable technologies. Thus, coconuts protect the environment, whilst maintaining yields and helping farmers produce organically grown coconuts that can be sold at premium prices.

10. Unlike other plantation crops where poor farmers are only used as laborers and paid low wages, coconut farmers can earn more income from intercropping and livestock integration, and from establishing small or medium enterprises (SMEs) to produce and market high-value coconut products.

The International Coconut Community was established to uplift the lives of the coconut farmer. The ICC values biodiversity because it sustainably enriches the environment and linked habitats and production systems and offers important benefits for coconut production systems in this instance, as well as those stakeholders, including smallholders and farmers who are associated with these production systems.

Meijaard et al. highlighted the need for reliable measures of the extent of impact on biodiversity within production systems. In response to this, ICC proposes that both coconut and palm oil industries consider conducting parallel studies applying a proven robust measure. Developed by the Alliance of Bioversity and CIAT, the Agrobiodiversity Index4 can be used to identify good practices, and manage risks and opportunities to increase use and conservation of agrobiodiversity for sustainable coconut and palm oil systems. ■

References: 1. Meijaard, Erik; Jesse. F. Abrams; Diego Juffe-Bignoli; Maria Voigt; Douglas Sheil (2020). Coconut oil, conservation and the conscientious consumer. Current Biology 30, R737–R758. 2. Meijaard, Erik (2020). Why coconut oil may be worse than palm oil for the environment. Independent. July 9, 2020. https://www.independent.co.uk/news/long_reads/science-and-technology/coconut-oil-worse-palm-oil-deforestation-environment-ecology-a9605761.html 3. Rochmyaningsih, Dyna (2020), Claim that coconut oil is worse for biodiversity than palm oil sparks furious debate, Science, Jul. 17, 2020 https://www.sciencemag.org/news/2020/07/claim-coconut-oil-worse-biodiversity-palm-oil-sparks-furious-debate 4. Sodhi, N. S., & Brook, B. W. (2006). Southeast Asian Biodiversity in Crisis. Cambridge, 5113 UK: Cambridge University Press. 5. Tilman D., Fargione J., Wolff B., D'aAntonio C., Dobson A., Howarth R., Schindler D., 5190 Schlesinger W.H., Simberloff D., and Swakhamer (2001) Forecasting agriculturally 5191 driven global environmental change. Science 292: 281- 284.