

January 28, 2015

To:

National Physical Planning Department

Urban Development Authority

Road Development Authority

Central Environment Authority

Ministry of Environment

CC: His Excellency, President Maithripala Sirisena

Prime Minister Hon. Ranil Wickramasinghe

Recommendations for Ecologically-Sustainable Town Planning and Road Design

The purpose of the letter is to present some of the growing trends of ecologically-sustainable town planning and road design which would hopefully be applied on roadway and urban development projects carried out in Sri Lanka, in order to minimize the negative ecological impact, solidify the future of our ecotourism, and ensure long term success of such infrastructure projects.

As a tropical Island, Sri Lanka is blessed with a high density of flora and fauna, a lot of it endemic to the Island. This rich biodiversity is one of the key attractions for visitors to the Island, and one of our greatest strengths in eco-tourism. However, in addition to the grave threat faced due to habitat loss, our roads are becoming death traps for our precious wildlife; high speed, increased size and greater density of roads are currently taking a heavy toll on our fauna, and eventually will damage Sri Lanka's reputation as a world-class eco-tourism destination.



(Female Sloth Bear killed by speeding vehicle in Karadikkuli Mannar road that bisects Wilpattu Park)

http://www.lankadeepa.lk/index.php/top_story/197814

To mitigate such negative impacts of these roads, sustainable development initiatives need to be given much more weight and priority in town planning discussions, and all possible steps need to be taken during the planning and design phase of roads to ensure that there is absolutely minimum impact on our forests and wildlife. The ideal solution would be to minimize new road construction by limiting urban sprawl, thereby also keeping maintenance and transportations costs to a minimum, which would also lower our dependence on imported oil. Mixed-use development projects (*Appendix A*) within existing cities can help limit urban sprawl, reduce traffic congestion and lower oil consumption. Remote villages and towns, especially those that exist within the buffer zones of ecologically critical habitat such as our UNESCO Natural World Heritage Forest, The Sinharaja Rainforest, should also be relocated and combined with larger towns that offer goods and services. This would help protect the bio-diversity of these environmentally-sensitive areas, and also benefit villagers who would have better facilities and larger markets to sell their goods. Villagers should be provided comparable property and/or compensation by using some of the tourist revenue generated by National Parks and World Heritage Sites.

When there is an absolute need for a new road, it must be planned avoiding areas rich in bio-diversity. Roads should not be built through protected National Parks, Forests and Wetlands, and certainly not through a world-heritage rainforest. Such roads cause severe, un-reversible damage (*Appendix B*). The recently-built road through Wilpattu National Park is already having a heavy toll on endangered wildlife as seen above, where a speeding vehicle recently killed an endangered female sloth bear on this road, just outside the park boundary.

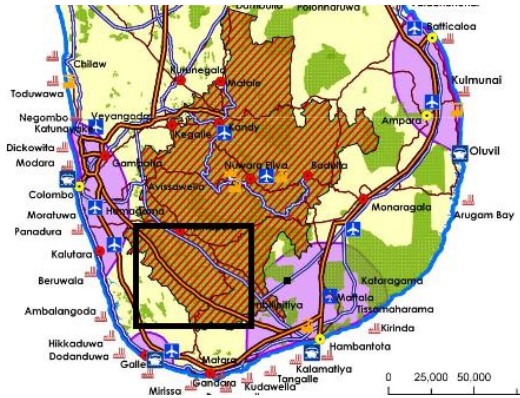
This rare animal is a member of an ever-diminishing population left on our island, and such totally-avoidable deaths will have a profound effect on the future survival chances of species valuable for our eco-tourism. In fact, the sloth bear is a good indicator species for the health of an eco-system, and in Sri Lanka, they have already disappeared from large swathes of wilderness that were once home to them, simply due to human disturbance, rather than direct persecution. Sometimes, we need to simply sacrifice a bit of convenience in favor of sustainable development. In this case, the road should never have been built through the National Park and its buffer zone, and the above death and many other deaths already seen on this road, prove the fact. Let us not make such mistakes again.

Most natural habitats in Sri Lanka are already quite small and on the verge of becoming unsustainable. These small patches of wilderness do not have enough food for the inhabiting wildlife, are vulnerable to invasive plants and human disturbance, and lack the genetic diversity needed for a viable population. Animals inhabiting these ever-shrinking patches of habitat cross the roads in a desperate attempt to find food. These animal incursions across roads and expressways are not only lethal to the animals attempting such crossings, but also to motorists and passengers. A good example of the danger posed is the collision of our cricket hero Sanath Jayasuriya and his driver had with a wild boar on the Southern Expressway. The impact completely demolished the vehicle and had killed the wild boar instantly. It could have been fatal to the occupants.



(Land Monitor crossing the Katunayake Expressway)

The proposed Colombo-Hambantota expressway in 2030 National Physical Plan bisects the Sinharaja - Kanneliya Rainforest Bio-diversity Corridor - one of the most bio-diverse areas of Sri Lanka. Constructing an expressway through such highly bio-diverse areas will not only be a terrible mistake and disaster for the wildlife, but also a serious threat to the motorists. As such, the National Physical Plan document needs to be re revised to shift the proposed expressway out of the rainforests and their buffer zones within the central environmentally-sensitive areas of the Sabaragamuwa province. With the Southern Expressway extending to Hambantota, this parallel expressway will not serve much purpose.



(2030 National Physical Plan depicting expressway through sensitive Rainforest habitat)

Although all possible measures should be taken to ensure that new roads do not go through Protected Areas, for roads that have already been built, it is important to minimize the negative impact. To increase the safety of commuters, preserve our wildlife and maintain Sri Lanka’s reputation as a premier eco-tourism destination, steps must be taken to create wildlife overpasses / underpasses as well as speed humps across existing roads that fragment wildlife habitat. Developed countries such as the U.S.A, the European Union, Singapore and even China, India, Taiwan, South Africa, Mongolia and Kenya have now realized the importance of wildlife overpasses / underpasses (*Appendix C, D*) due to environmental concerns and the cost associated with motor accidents and the loss of wildlife. The stretch of Katunayake Expressway bisecting Muthurajawela Wetland is one critical location needing a wildlife overpass. Ideally, this stretch of the expressway should not have been built through the environmentally-sensitive wetland. Creating a wildlife overpass is the least we can do now to minimize the damage to the ecosystem and reduce wildlife collisions with motor vehicles. However, it should never be thought that building roads through Protected Areas is acceptable if an overpass / underpass is built. The true effectiveness of overpasses / underpasses is being questioned in many countries, and Sri Lanka does not have enough scientific data to come to a conclusion. Moreover, to be fully effective, wildlife overpasses / underpasses need to be built at regular intervals, and this will mean huge expenses. Due to the lack of proper studies, and the cost associated with such projects, it makes better economic and scientific sense to keep major roads and expressways out of bio-diverse areas.



(Wildlife overpass over the highway A50, Netherlands)

IT IS TIME we placed a monetary value on our wildlife and invested in their future. They are priceless and once lost no amount of money will bring them back. Countries such as Bangladesh and Thailand used to have Rhinos. They now have lost the golden opportunity to make millions of tourism dollars by not taking timely action to protect extinction of these beautiful creatures. We should learn from the mistakes of both developed and developing countries and plan for a sustainable development model, before it is too late. We need to protect our endangered species such as the Sri Lankan Sloth Bear and the Sri Lankan Leopard and ensure our roads are not death traps that push them towards extinction.

With these considerations in mind, we should revise the 2030 National Physical Plan to ensure roads and expressways are not built through protected National Parks and Forests or their buffer zones. We should take immediate measures to address the issue of wildlife collisions on existing roads and ensure future road and urban development plans are made with these concerns in mind. Let's make Sri Lanka a role model for environmentally-responsible and sustainable development in the 21st century.

Rainforest Protectors of Sri Lanka

<http://www.RainforestProtectors.org>

Supported by The Federation of Environmental Organizations of Sri Lanka

<http://www.feosl.org>

Wildlife Conservation Society – Galle

Wildlife Research and Conservation Trust

Parisaraya Surakeeme Sanvidhanaya

Nature Team

Eco-V

Environmental Foundation Limited

Partners for Change

Green Knights

Mihithala Mithuro Environment Development Foundation

Desheeya Wananthara Surakeeme Sangamaya

Lakdasun

Appendix A: Mixed-use Development

http://en.wikipedia.org/wiki/Mixed-use_development

Appendix B: Impact of Vehicular Traffic on Herpetofaunal Mortality in a Savannah Forest, Sri Lanka

<http://www.sljol.info/index.php/TAPRO/article/view/6284/4892>

Appendix C:

Can a Wildlife Bridge Fix America's \$8 Billion Roadkill Problem?

<http://www.fastcodesign.com/1662800/can-a-wildlife-bridge-fix-americas-8-billion-roadkill-problem>

Appendix D: Elephants use underpass that links two wildernesses for the first time

<http://www.dailymail.co.uk/news/article-1351475/Its-trunk-road-Elephants-use-underpass-links-wildernesses-time.html>