Promoting social and environmental benefits of REDD+ in Panama

Forests in Panama

Nearly half of Panama's territory is covered by forests, which host a wealth of plant and animal species. These forests also provide crucial ecosystem services such as regulating hydrological flows, supplying clean water, protecting against soil erosion and resulting sedimentation, providing timber and non-timber forest products and serving aesthetic, recreational and spiritual purposes. As carbon stores, Panama's forests also contribute to climate regulation. However, they are threatened by pressures from increasing infrastructural development, agricultural expansion and logging.

Potential benefits from REDD+

The primary aim of REDD+ is to contribute to climate change mitigation by conserving and enhancing forest carbon stocks. Well-designed REDD+ actions also have the potential to deliver additional social and environmental benefits. Depending on how actions for REDD+ are planned and implemented, they could also pose certain risks. Achieving multiple social and environmental benefits - while avoiding risks - can increase the long-term sustainability of REDD+. This is also in line with the UNFCCC safeguards for REDD+, which have been developed to promote benefits and protect against risks.

National stakeholders developed a list of prioritized benefits from REDD+ in Panama, based on potential to generate investment and contribute to quality of life, as well as relevance for Panama's national development strategy. The priorities identified include support for biodiversity conservation and tourism, and soil erosion control.

REDD+ actions can help to deliver additional social and environmental benefits beyond climate change mitigation alone.

Promoting social and environmental benefits of REDD+ through spatial planning

Spatial planning can support decisions about possible locations for REDD+ actions in Panama that could deliver benefits beyond climate change mitigation. Together with spatial information on areas under deforestation pressure, this can make a valuable contribution to the development of REDD+ strategies and implementation plans.

Future deforestation scenarios

In Panama, detailed scenario-based modelling by the Tropical Agricultural Research and Higher Education Center (CATIE), has been used to project the distribution of future deforestation (to 2028) under different development pathways. Priority areas for REDD+ actions may be locations where both deforestation risk and the potential for multiple social and environmental benefits are high.

Deforestation in Panama threatens a range of important ecosystem services.

Risk to forest areas of potential importance for multiple benefits of REDD+

Using analysis developed by CATIE to assess forest areas at risk of future deforestation by 2028, areas of forest important for various combinations of potential benefits that are potentially at risk can be highlighted. The multiple benefits included are: a) areas of high carbon; b) biodiversity conservation (Key Biodiversity Areas); c) soil erosion control (areas identified as having high importance for soil erosion control); and d) support for tourism (areas containing sites important for active/adventure, scientific and ecotourism). Areas that are of potential importance for multiple benefits, but that are also at high risk of future deforestation, are shown in burgundy. These areas could be priority locations for REDD+ actions to reduce deforestation.
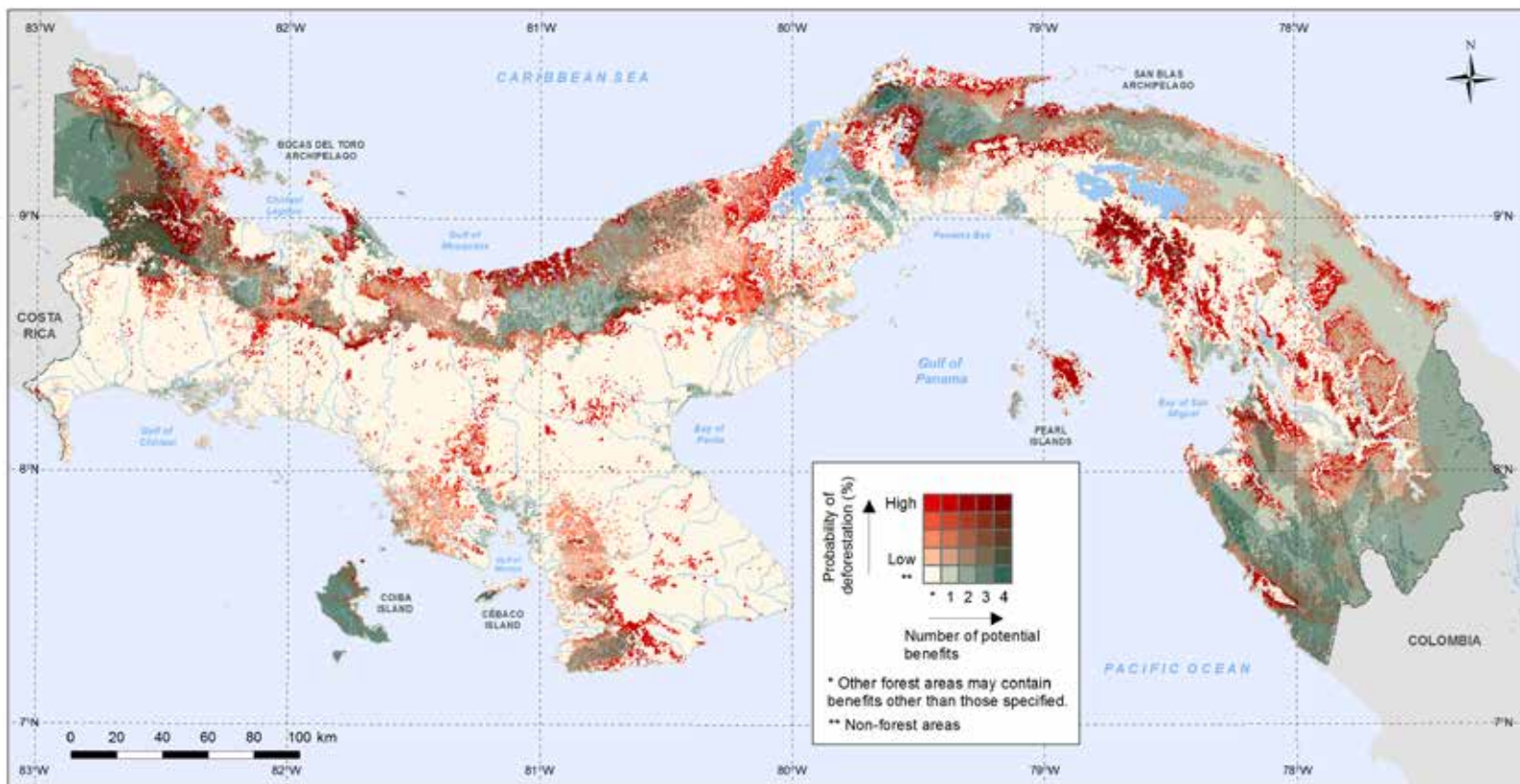
Data sources: Hijmans (2005), GWSP Digital Water Atlas (2008), Lehner et al. (2008), ANAM (2011), CATHALAC (2011), ASEP and ANAM (2012), Birdlife and Conservation International (2012), Asner et al. (2013) and CATIE (2013). For a full method description, please see: Kapos, V., Walcott, J., Thorley, J., Mariscal, E., Labbate, G., Ravilious, C., Miles, L., Narloch, N., Trumper, K. and Bertzky, M. (2015) *Planning for REDD+ in Panama: securing social and environmental benefits*. Cambridge, UK: UNEP-WCMC. Available online at: http://bit.ly/panamamultiplebenefits

Priority benefits of REDD+, according to national stakeholders, include: ecotourism; climate regulation; biodiversity conservation; and soil erosion control.

Costs

Information on the relative costs of different REDD+ actions is important for planning. In Panama, the UN-REDD Programme has supported analyses that allow a comparison between the opportunity costs of REDD+ and potential benefits in three different regions. While some benefits, such as biodiversity conservation, may be difficult to capture in assessments of monetary value, this approach can show how REDD+ implementation can result in economic gains in addition to any results-based payments for reduced emissions. As the present-day economic value of forests depends on the benefits delivered to particular beneficiaries (e.g. forested watersheds that feed into the Panama Canal are of higher value than those in the sparsely populated Darien), spatially explicit valuations can be particularly useful to decision-makers.