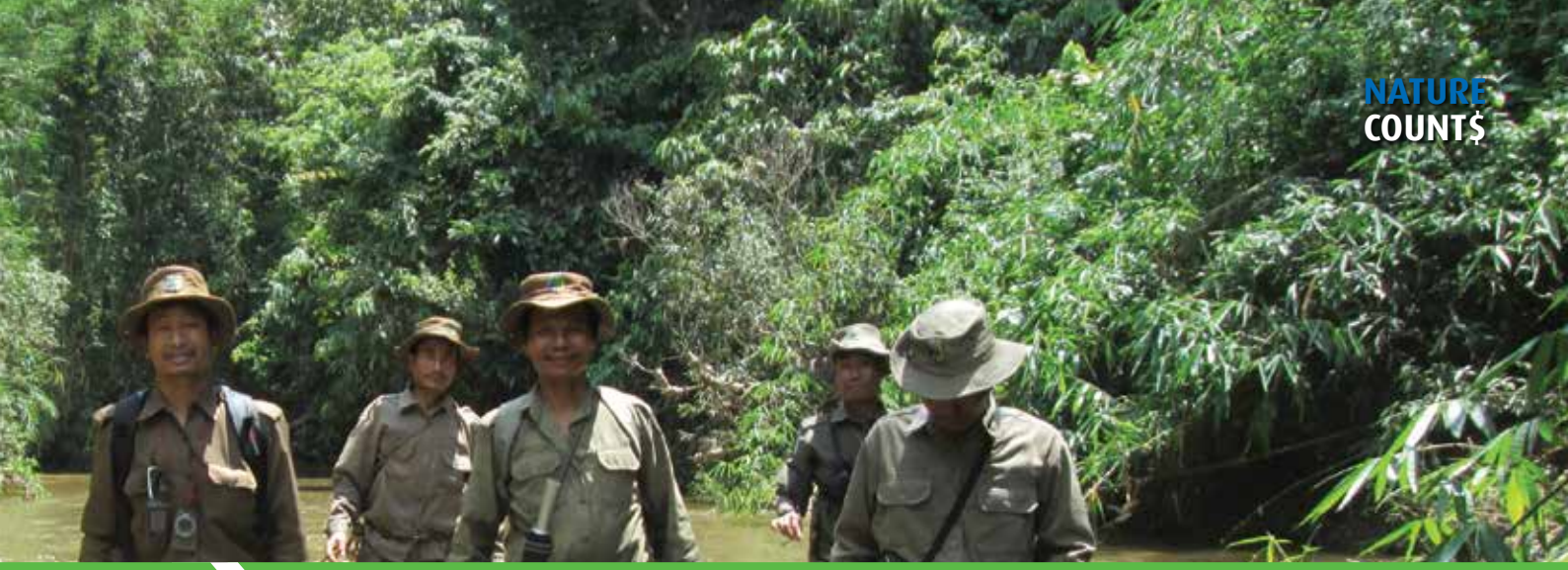


NATURE COUNT$

GOAL 15

Protect, restore & promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss

Photo: WCS Myanmar

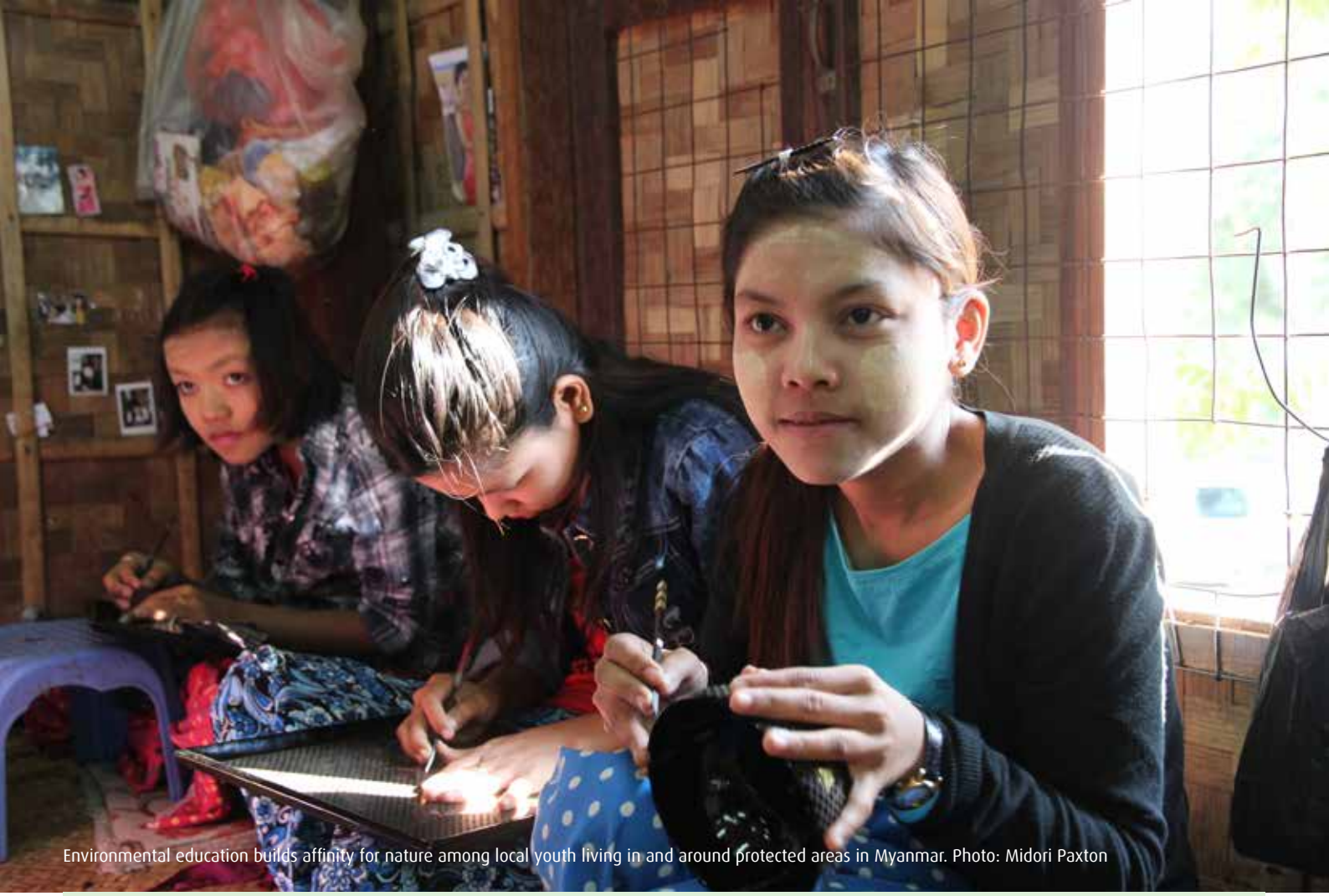
Ecosystems and biodiversity lie at the core of SDG 15, which recognises the key role that forests, wetlands, mountains, drylands and other natural habitats play in supporting and sustaining human development. It aims to ensure that these valuable, yet threatened, elements of natural capital are restored and conserved so that they continue to yield benefits into the future.

How does UNDP's work **support** this SDG?

Case study: Protected areas management in Myanmar

Myanmar is the largest country in mainland South-East Asia, containing an exceptional array of plants, animals and natural landscapes. It spans an elevational range of nearly 6,000 metres from the summit of Hkakaborazi, South-East Asia's highest mountain, to the shores of the Andaman Sea and the Bay of Bengal. Between these two extremes, it encompasses several mountain ranges, extensive lowland plains, and one of Asia's largest river deltas. It includes all or part of five major rivers: the Ayeyarwady (Irrawaddy), Thanlwin (Salween), Chindwin, Sittaung and Mekong. As well as having outstanding conservation significance (the country includes many species which are globally threatened or found nowhere else on earth), biodiversity and natural ecosystems make a major contribution to economic growth and development in Myanmar. Many sectors depend directly or indirectly on natural resources and processes, and ecosystem services underpin local livelihoods as well as helping to reduce the vulnerability and enhance the resilience of the country's extensive poor rural population.

Myanmar's natural environment has faced persistent and worsening threats over the last decades, primarily due to logging, fuelwood and charcoal production, and the conversion of natural habitats to farmland and commercial plantations. While forest cover stood at approximately 66% in the early 2000s (making Myanmar one of the most forested countries in South-East Asia), it has decreased to less than 48% today.



Environmental education builds affinity for nature among local youth living in and around protected areas in Myanmar. Photo: Midori Paxton

PROJECT: Strengthening Sustainability of Protected Area Management in Myanmar
MAJOR DONORS: GEF, UNDP, Government of Myanmar, Wildlife Conservation Society
LOCATION: Hkakaborazi National Park, Hponkanrazi, Htamanthi and Hukaung Valley Wildlife Sanctuaries (Kachin State and Sagaing Region), feeding into national level Myanmar
DATE: 2014-2019
WEBLINKS: https://www.thegef.org/gef/project_detail?projID=5159

According to FAO's Forest Resources Assessment 2010, the loss of overall forest cover amounted to 5.5% of the total land area during 2004-2010, a far higher rate than at any time previously. These pressures are likely to increase dramatically as Myanmar opens up to foreign investment and trade, and implements its plans to expand and develop mining, hydropower, road and infrastructure sectors. The Government of Myanmar has established a system of protected areas (PAs), covering some 5.75% of the country. However, inadequate budgets, low staffing, weak management capacity, unsupportive policies and poor law enforcement, combined with the remoteness and inaccessibility of much of the country, have weakened the ability of the system to effectively conserve biodiversity. The PA network is also biogeographically incomplete, and certain key ecosystems such as limestone caves, inland wetlands, grasslands, estuaries, mangrove, and marine habitats are under-represented.

UNDP is collaborating with the Ministry of Environmental Conservation and Forestry, and the Wildlife Conservation Society (WCS) to support the development of a robust, representative and effectively managed terrestrial protected area system in Myanmar. The project "Strengthening Sustainability of Protected Area Management in Myanmar" operates at the national level, and also in four demonstration sites which cover 26,000 km^2 or two-thirds of the PA network. As well as strengthening management planning and implementation on the ground, the project is working to identify and develop sustainable funding mechanisms nationally and for the four demonstration sites. A key output of the project is to facilitate the expansion of the PA network to at least 10% of the national terrestrial area and achieve more complete representation of globally significant ecosystems—a target that has been established in Myanmar's National Biodiversity Strategy and Action Plan.

Nature count$: Key economic impacts and returns to conservation

By improving the coverage, management and financing of Myanmar's terrestrial protected area network, this project is helping to secure forest goods and services worth more than US$7.3 billion a year for local communities and the national economy, and helping to generate a return of $40 for every $1 invested in biodiversity and ecosystem conservation.

Myanmar's natural forests are worth some US$7.3 billion a year, generating value-added & costs avoided for multiple sectors & stakeholders

household forest foods, medicines, fuel & earnings
US$2,287 million

clean & regular water supplies, flood control
US$721 million

household food & income from aquatic products
US$848 million

protection against storms, surges & coastal erosion
US$707 million

raw materials for industry & commercial production
US$1,835 million

carbon storage & climate mitigation
US$890 million

investments in biodiversity conservation yield a high development return: every US$1 leverages benefits of US$40/year for the economy & population

This project is making a tangible contribution towards the conservation and sustainable use of terrestrial ecosystems and their services, in line with obligations under the Convention on Biological Diversity (✓SDG Target 15.1), promoting sustainable forest (✓SDG Target 15.2), conserving mountain ecosystems, (✓SDG Target 15.4), reducing degradation of natural habitat, halting the loss of biodiversity and preventing the extinction of threatened species (✓SDG Target 15.5), addressing poaching and trafficking of protected species and illegal wildlife products (✓SDG Target 15.7), introducing measures to minimise invasive alien species (✓SDG Target 15.8), integrating ecosystems and biodiversity values into national and local planning and development processes (✓SDG Target 15.8), mobilising and significantly increasing both biodiversity financing (✓SDG Target 15.a) and sustainable forest management (✓SDG Target 15.b) and enhancing global support to efforts to combat poaching and trafficking of protected species, including increasing the capacity of local communities to pursue sustainable livelihood opportunities (✓SDG Target 15.c).

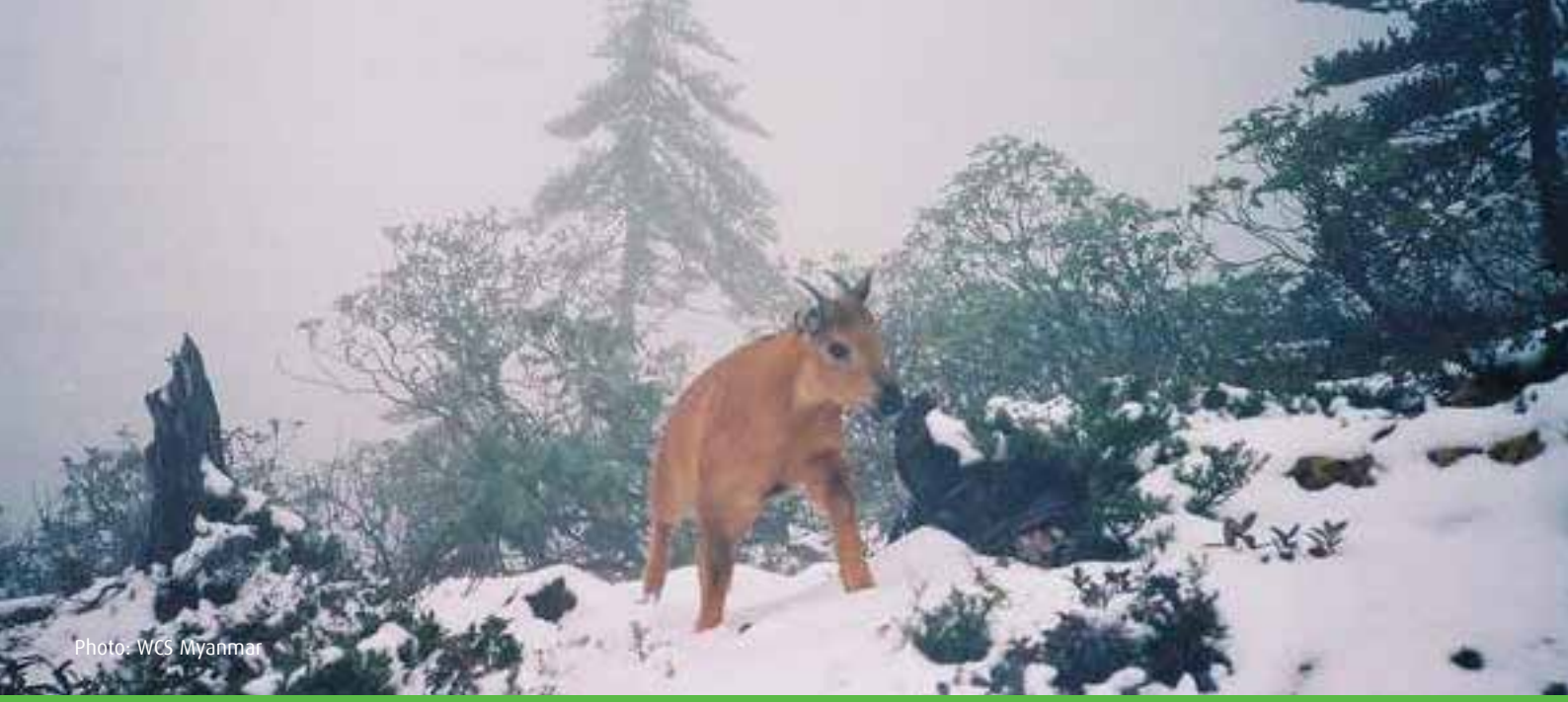


Photo: WCS Myanmar

How the economic impacts were calculated:

The effective conservation of Myanmar's PA network at national and site levels, combined with its expansion to at least 10% of the national terrestrial area (from 3,788,697 to 6,765,530 hectares), will secure and maintain biodiversity and ecosystem services that are of local, national and global importance. The value of terrestrial biodiversity and ecosystem conservation in Myanmar can be at least partially approximated by looking at the contribution that forest ecosystem services make to different economic processes and sectors in the country. The figures below are taken from a recent study that assessed the economic value of forest ecosystem services in Myanmar, and modelled the value added and costs avoided from achieving the conservation goals and targets detailed in the Forestry Masterplan, including a 10% expansion in the national PA network (Emerton and Yan Min Aung 2013).

The current annual value of forest ecosystem services is found to be $7.3 billion or 7 trillion Myanmar Kyat (MMK) or just under $3,500 per km^2 per year. This figure includes timber and wood products, non-timber forest products, nature-based tourism and recreation, insect pollination, fisheries nursery and breeding habitat, erosion control, watershed and coastal protection, and carbon sequestration. Enhancing conservation effectiveness and investments will, meanwhile, add value and avoid costs and losses worth more than $39 billion or MMK 37 trillion over the next 20 years, to a Net Present Value of some $10 billion or MMK 8 trillion. This translates to an economic or development return of $40 of benefits to Myanmar's economy and population for every $1 invested in conservation.

The project intends to substantially increase the amount of funding flowing to demonstration sites, and to the PA network as a whole. Overall, a $750,000 increase in annual budget allocations is projected over the next five years. A review of status and trends in protected area financing has just been carried out in Myanmar (Emerton et al. 2015). The analysis of government, international and private sector budgets finds that an average of $1.9 million a year or $43 per km^2 is spent on PAs, 40% of which comes from public funds and 60% from external sources. These figures however vary greatly between sites—only 20 PAs are actually staffed or receive a government budget. Even those PAs that do receive funding face severe budget constraints and are unable to cover the costs of essential infrastructure, equipment, maintenance, and operational activities. Comparing these figures to the amount of funding required for effective PA management suggests that Myanmar's PA network faces an annual funding gap (over and above current budget allocations) ranging from $460,000 or $12 per km^2 a year to extend current staffing and expenditure levels across the entire existing PA network, up to a maximum of $8.88 million or $130 per km^2 a year to achieve a fully-staffed, effective and expanded PA network.

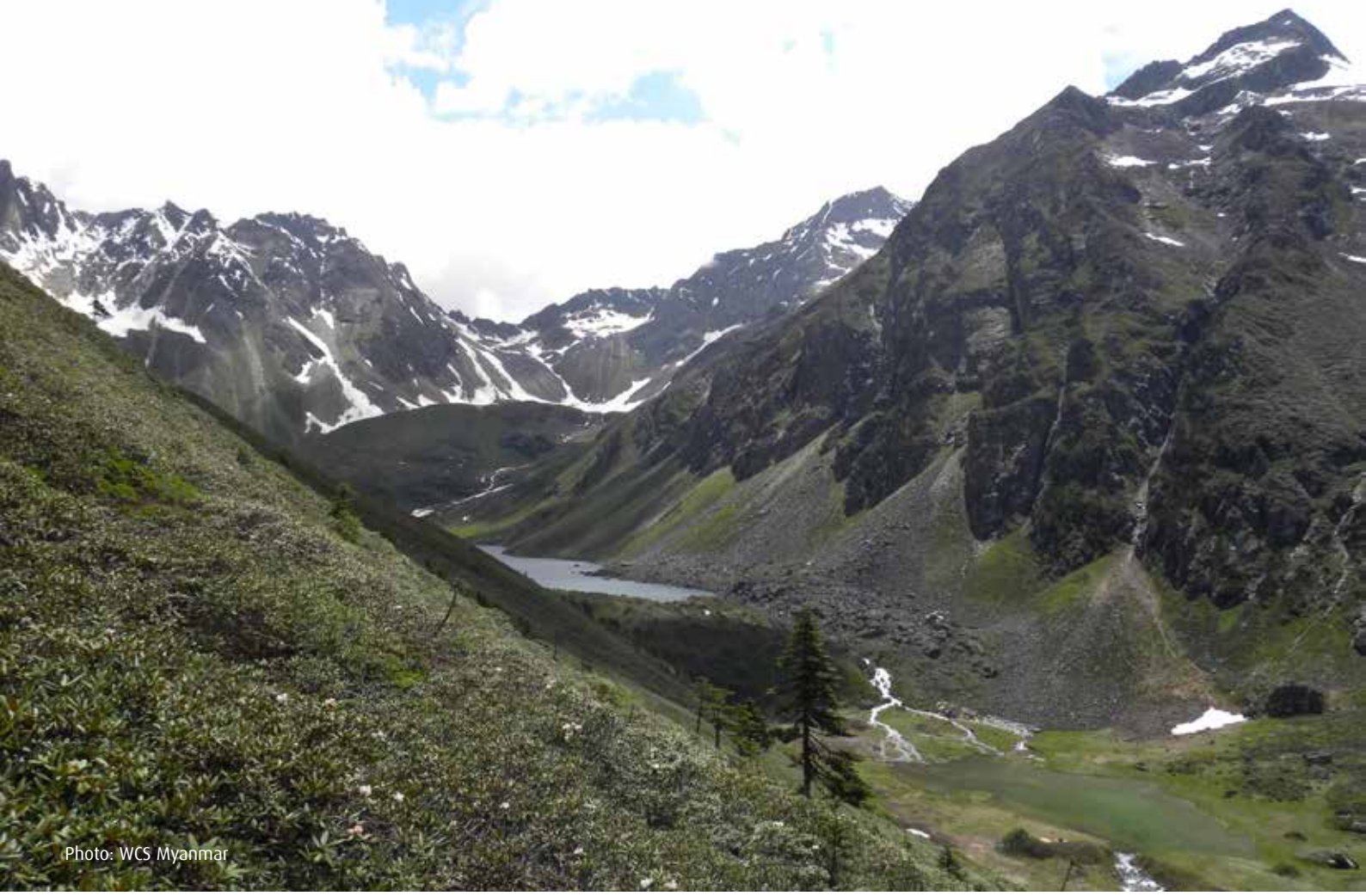


Photo: WCS Myanmar

References

Emerton, L. & Aung, Y. M. (2013) *The economic value of forest ecosystem services in Myanmar and options for sustainable financing*. Yangon, International Management Group. Available from: http://www.burmalibrary.org/docs22/IMG_2013_Myanmar_forest_valuation_-_full_report.pdf

Emerton, L., Kyin, U.A. & Tizard, R. (2015) *Sustainable financing of protected areas in Myanmar*. Yangon, Wildlife Conservation Society. Available from: https://myanmarbiodiversity.org/wp-content/uploads/2016/01/Sustainable-Protected-Areas-Financing-web.pdf

UNDP. (2014) *Project Document: Strengthening sustainability of protected area management in Myanmar*. Bangkok, UNDP.

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United Nations Development Programme
Bangkok Regional Hub
3rd Floor United Nations Service Building
Rajdamnern Nok Avenue
Bangkok 10200, Thailand
http://www.asia-pacific.undp.org/

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