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| **The potential of West and Central African coastal protected areas for Blue Carbon projects and mangrove restoration** |
| Despite the well documented ecological, economic and social benefits they provide, mangroves continue to suffer high rates of degradation and destruction, with global losses of 1-2% per year, exceeding those of terrestrial tropical forests. The West-African mangroves, approximately 11% of the world’s mangrove area, constitute a major carbon sink at the global scale, and their protection is a priority in the context of climate change. Coastal conservation projects in West-African Marine Protected Areas (MPAs) have suffered from a lack of local funding and relies heavily on international funding sources, a less than ideal solution in the long run. Thus, finding local, durable funding solutions is a priority for these protected areas. The goal is to assist in the development of pathways for blue carbon projects in West Africa to access blue carbon finance and promote regional cooperation for climate change mitigation and adaptation through the restoration, conservation and sustainable use of mangroves at local, national and regional scale. To achieve this, we propose the development of mapping and monitoring approaches using remote sensing in order to evaluate the potential to put together Blue Carbon projects on the MPAs. We used a Landsat-based compositing approach (LandTrendr) and machine learning classifiers to develop annual land cover (eight key land cover classes, including mangrove forests, from 2000 to 2022) for approximately 275,000 Km² along the coast from Mauritania to the Democratic Republic of Congo, covering more than 235 MPAs. The yearly trend of land cover and mangrove extent allowed to identify restorable areas and key coastal MPAs to develop projects to be financed by the carbon credit market for climate change mitigation and adaptation. |