

Urbanization

Chips Away Turtle Habitats in West-Central Africa

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This brief glimpse of trends related to sea turtles and coastal development in West-Central Africa highlights the need for stronger national governance and for urban planning that considers the protection of natural habitats, not merely short-term economic considerations.

One of the most insidious threats to sea turtles in West-Central Africa is the impact of coastal development. Comparisons of past and present satellite images show strikingly rapid development over the past two decades in particular. Two coastal towns that illustrate this phenomenon well are the megacities of Lagos, Nigeria, and Pointe-Noire, Republic of the Congo. Urban expansion and coastal settlement in those cities have brought increased light and ocean pollution and more vessel traffic. As a result, more adult sea turtles and nests have been lost to human predation.

For years, cultural and socioeconomic factors in West-Central Africa—including the lure of modernity and the urban lifestyle, as well as the desire for steady employment—have driven migration from rural to urban areas. Lagos is now the largest city in Africa, home to an estimated 21 million inhabitants. With 1.1 million people and growing, Pointe-Noire is the Republic of the Congo’s second-largest city (after Brazzaville, with 2 million people) and the most rapidly growing one. Indeed, 70 percent of that nation’s population now lives in the urban sprawl between Brazzaville and Pointe-Noire.

This vertiginous urban growth has occurred for the most part without planning or regulation. Thus, the environmental impact has been devastating. One unexpected driver of growth has been the availability of low-cost motorcycles from China. Motorcycles have created jobs for moto-taxi drivers and they provide affordable transportation for countless African commuters. Motorcycles also provide affordable access to the remote outskirts of urban areas, including areas extending well beyond paved roads. This increased access allows for uncontrolled development in the wetland, hill, bush, and plateau areas surrounding Pointe-Noire—areas that have rapidly become a grid of building plots and a tangle of seemingly arbitrary dirt roads.

Urbanization throughout West-Central Africa has also brought a shift in cultural mores. A significant transition has occurred from traditional land ownership to a cadastral-based land tenure system, whereby people are quick to build and occupy plots to establish ownership.

Beyond providing cheap motorcycles, China has left its imprint on African cities through the implementation of special economic zones (SEZs). Such zones facilitate investment through reduced taxes and improved access to international trade. China has been acquiring, selling, and funding industrial development in SEZs since the 1970s, deeply reshaping African cities. SEZs often are organized around a deep-sea port and thus lead to expansion of cities along coastlines. The Republic of the Congo will start constructing



SATELLITE VIEW OF LAGOS, NIGERIA, 1990



SATELLITE VIEW OF POINTE-NOIRE, REPUBLIC OF THE CONGO, 1990



SATELLITE VIEW OF LAGOS, NIGERIA, 2016



SATELLITE VIEW OF POINTE-NOIRE, REPUBLIC OF THE CONGO, 2016

Satellite images show the dramatic growth of the coastal cities of Lagos, Nigeria, and Pointe-Noire, Republic of the Congo, over the past 26 years. The expansion of urban development along West-Central Africa’s coast also brings increases in light pollution, vessel traffic, ocean pollution, and other changes that impact turtle habitats. MAP DATA: GOOGLE, IMAGE LANDSET / COPERNICUS, DATA SIO, NOAA, U.S. NAVY, NGA GEBCO, US DEPT OF STATE GEOGRAPHER

its first SEZ in 2017 in Pointe-Noire Bay, centered on a mineral and container ship port. Southward coastal urban sprawl in Pointe-Noire was already affecting important olive ridley and leatherback nesting beaches. The new SEZ is poised to launch an assault on important green turtle feeding grounds at Pointe-Indienne, the cape bordering the Pointe-Noire Bay to the north. A race against the clock has begun to create a Marine Protected Area in Loango Bay to stem those impacts to the Pointe-Indienne feeding ground.

In Nigeria, two SEZs associated with ports are driving the coastal urban sprawl of Lagos: the Badagry Free Trade Zone in the west and the Lekki Free Trade Zone in the east. Those SEZs are predicted to increase threats to the already affected 100-kilometer (62-mile) coastline of the Lagos suburbs, the site of significant leatherback and olive ridley nesting.

Many other SEZ and port hub projects are expected in the next decade, fueled by growing competition between shipping lines in Europe and China to develop new West African hubs. Such projects will involve at least six new major ports and an array of smaller ones and will represent billions of dollars in foreign investment. One such container port in Kribi, along Cameroon’s southern coast, is

already triggering increased human settlement and coastal development in Lolabé, near an area designated to become a Marine Protected Area (Kribi Campo MPA) that hosts sea turtle feeding grounds and nesting beaches.

This brief glimpse of trends related to sea turtles and coastal development in West-Central Africa highlights the need for stronger national governance and urban planning that considers the protection of natural habitats, not merely short-term economic considerations. From a sea turtle conservation perspective, territorial planning relies on knowledge—often incomplete—about nesting sites, feeding grounds, and migratory routes. Filling those data gaps is one important way that conservation researchers and civil society organizations can become involved and can help to influence decisionmakers. Our collective goal and responsibility must be to improve cooperation among players in the conservation community, researchers, government decisionmakers, and members of the private sector. All stakeholders must resolve to build and adhere to sustainable development strategies and urbanization policies that are driven not only by investors but also by national authorities responsible for preserving coastal natural resources and ecosystems. ■