

## **Jiangsu's Vanishing Wetlands**

Based on fieldwork and satellite analysis conducted between March and November 2017, Greenpeace East Asia has identified immediate threats to Jiangsu's wetlands, including to the habitat of the spoon-billed sandpiper. The spoon-billed sandpiper is an IUCN Red List critically endangered species, and an estimated 700 individuals remain worldwide.<sup>1</sup>

Based on the findings of this report, Greenpeace calls for an immediate halt to the Tiaozini land fill project and for the area to be included within Jiangsu's ecological red lines. No construction or land fill should be permitted within red line areas.

### **Research findings:**

Land fill is a major threat to Jiangsu's wetlands. Other threats include industrial wastewater discharge and legal loopholes that allow construction within nature reserves. Numerous critical wetland areas have not been included within Jiangsu's draft ecological red lines and remain entirely unprotected.

### **A. Land fill**

Land fill, also called land reclamation, is the process of transforming the ocean, wetlands or other bodies of water into hard ground by dumping soil and rocks, by causing the area to silt up by installing barriers or via hydraulic reclamation.<sup>2</sup> It is the primary cause of wetlands destruction in China.<sup>3</sup>

Over the past 60 years, China has experienced a land reclamation frenzy, as developers look to earn a quick profit without purchasing expensive property -- at the expense of the country's wetlands. Since 2006, an average of 13,000 hectares of land fill has been added to China's coast each year.<sup>4</sup>

#### **Case 1: Tiaozini mudflats**

Tiaozini, Dongtai County, is located 220 kilometers northwest of Shanghai. It is situated along the East Asian-Australasian Flyway, one of the nine major routes for migratory birds worldwide,

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<sup>1</sup> Clark N A, Anderson G Q A, Li J, et al. First formal estimate of the world population of the Critically Endangered spoon-billed sandpiper *Calidris pygmaea*. *Oryx*, 2016: 1-10.

<sup>2</sup><http://www.citymetric.com/skylines/gift-sea-through-land-reclamation-china-keeps-growing-and-growing-1350>

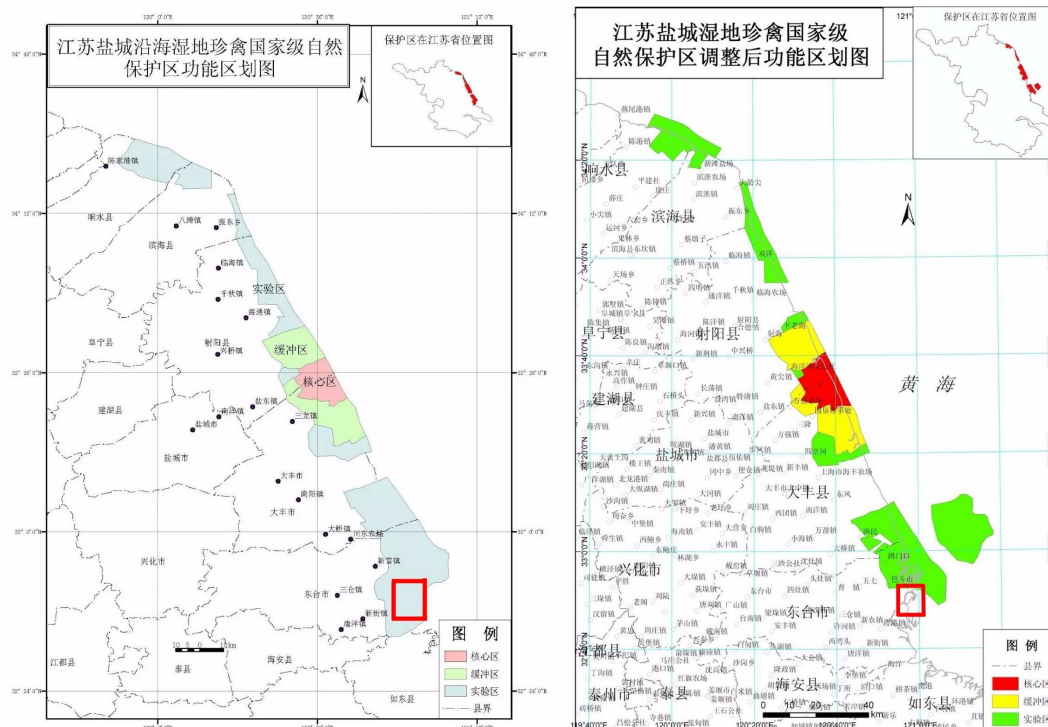
<sup>3</sup> State Forestry Administration. China Wetland Resources (master volume). China Forestry Publishing House, 2015. 138.

<sup>4</sup> <https://www.caixinglobal.com/2017-10-29/101162695.html>

and is a key stopover for the spoon-billed sandpiper on its route from Southeast Asia to Siberia.<sup>5</sup>

Tiaozini is also an important habitat for the Dalmatian Pelican (IUCN near threatened), Nordmann's greenshank (IUCN endangered) and black-faced spoonbill (IUCN endangered).

Jiangsu's provincial government has initiated a major land fill project at Tiaozini. The project began in 2011 and is scheduled to be completed before 2020. In 2013, the government dropped the area's designation as a nature reserve, allowing development to take place.



*The boundary of Yancheng National Nature Reserve, Jiangsu, was adjusted in 2013 to exclude Tiaozini mudflats. Tiaozini, marked by a red box, was included in a map of the nature reserve in 2007 (left) but not in 2013 (right).*

The first phase of the land fill project was completed in 2014 and encompassed an area of 6,750 hectares. It was the largest land reclamation project to receive one-step approval in China.

However, much of the area that has already been reclaimed remains unused. Greenpeace found that, as of June 2017, 38% of land reclaimed during the first phase of the project is not in use. The remaining 62% is used for farming and aquaculture.

<sup>5</sup> <http://www.eaaflyway.net/about/the-flyway/>

The second and third phases are slated to take place before 2020 and will encompass an additional 59,950 hectares, a total area that amounts to more than ten times the size of Manhattan.

According to a province-level law, “Outline for the Development and Utilization of Mudflat Reclamation in Jiangsu,” 20% of the land fill area must be left for ecological use.<sup>6</sup> However, Greenpeace found that only 10.24% of this area will be preserved if the project goes ahead as planned.

Tiaozini is not included within Jiangsu’s draft red lines.

## **B. Industrial encroachment on coastal wetlands**

### Case 2: Yancheng Binhai Chemical Industry Park

Yancheng Binhai Chemical Industry Park is located in Binhai County, Yancheng City, and houses pesticide, pharmaceutical and textile companies, among other industries. The chemical park borders a wetland area that is included within Jiangsu’s draft red lines. Wastewater from the park is discharged immediately next to the planned environmental protection zone, in waters that flow into the red line area. In 2015, chemical and pharmaceutical companies in the park were cited for failing to meet wastewater discharge standards. The draft red line area is an important habitat for the IUCN endangered red-crowned crane.

### Case 3: Xiaoyangkou nature protection area

Greenpeace has identified two ongoing construction projects within a nature protection area at Xiaoyangkou, Yangkou Township, Rudong County, Jiangsu Province. The area lies along the East Asian-Australasian Flyway, and is an important habitat for the spoon-billed sandpiper. The first project is a sea barrier and fishery operation site, and the second is an equipment loading base.

Two separate environmental assessment reports were submitted for the construction; however, there is evidence that both projects are components of the same offshore wind farm. Applying for multiple permits for the same project is a tactic used by developers to skirt regulations, as it is often easier to obtain approval. However, doing so violates Article 16 of *the Provisions on the Administration of the Right to Use Sea Areas*.<sup>7</sup>

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<sup>6</sup>[http://xxgk.nantong.gov.cn/govdiropen/jcms\\_files/jcms1/web156/site/art/2015/7/9/art\\_8841\\_430256.html](http://xxgk.nantong.gov.cn/govdiropen/jcms_files/jcms1/web156/site/art/2015/7/9/art_8841_430256.html)

<sup>7</sup><http://www.lawinfochina.com/display.aspx?id=5633&lib=law&SearchKeyword=&SearchCKeyword=%ba%a3%d3%f2%ca%b9%d3%c3%c8%a8%b9%dc%c0%ed%b9%e6%b6%a8>

### **C. Illegal construction in nature reserves**

#### Case 4: Moon Bay Beach

The Moon Bay Beach project is located at Binhai County, Yancheng City. A resort and artificial beach have been built within an existing nature reserve and inside Jiangsu's draft red lines. Under Jiangsu's 13th Five-Year plan, the resort was listed as a high priority project, but it was never approved by the central government or the Jiangsu provincial government.<sup>8</sup>

Earlier this year, Greenpeace notified the State Oceanic Administration that the artificial beach had been illegally built in a nature reserve. State Oceanic Administration inspectors visited the site, the structure was deemed illegal, and construction was halted. However, developers are now in the process of applying for a permit that would allow them to complete construction of the hotel, despite it being within the draft red line area.

#### **Background:**

The majority of China's wetlands have already been destroyed. Between 1950 and 2000, 53% of the country's temperate coastal wetlands were lost, along with 73% of mangrove forests and 80% of coral reefs.<sup>9</sup> Between 2003 and 2013, China's coastal wetlands shrank by another 1.36 million hectares, an area 81 times the size of Beijing.<sup>10</sup>

In 2015, the central government set a target for the protection of 53 million hectares of wetlands nationwide. However, a 2016 report from the Paulson Institute found that achieving this target will soon be impossible. At the current rate of reclamation, less than 53.3 million hectares of wetlands will remain by the end of 2018.<sup>11</sup>

The fate of China's wetlands now depends in part on a system of "ecological red lines," which are intended to act as a baseline for natural protection. In February 2017, the State Council released, "Opinions on Defining and Protecting Ecological Red Lines," which mandates that Jiangsu and 13 other provinces draw up their ecological red lines by Jan. 1, 2018.<sup>12</sup> Areas within the red lines are designated for protection.

In addition to providing shelter to migratory birds, coastal wetlands perform numerous ecological functions. They act as barriers against storm surges, filter pesticides and other toxins from

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<sup>8</sup> <http://www.binhai.gov.cn/Article/ShowArticle.asp?ArticleID=537637>

<sup>9</sup> <http://www.paulsoninstitute.org/wp-content/uploads/2016/08/Wetland-Report-CN-final.pdf>

<sup>10</sup> State Forestry Administration. China Wetland Resources (master volume). China Forestry Publishing House, 2015.

<sup>11</sup> <http://www.paulsoninstitute.org/wp-content/uploads/2016/08/Wetland-Report-CN-final.pdf>

<sup>12</sup> [http://news.xinhuanet.com/politics/2017-02/07/c\\_1120426350.htm](http://news.xinhuanet.com/politics/2017-02/07/c_1120426350.htm)

agricultural runoff, and store huge amounts of carbon<sup>13</sup>. Due to their shallow waters and abundance of nutrients, wetlands are extremely productive ecosystems -- China's coastal wetlands are home to an estimated 28,000 species of marine life.<sup>14</sup>

Jiangsu is home to the most wetland area of any province in China.<sup>15</sup>

**Greenpeace's recommendations:**

- Tiaozini should be included within Jiangsu's ecological red lines. No further land reclamation should be permitted at the site effective immediately.
- No construction or land fill should be permitted within red line areas. Polluting industries near these areas should be strictly regulated. Loopholes that permit developers to build in nature reserve areas must be closed, and developers should not be allowed to apply for multiple permits for the same project.
- An ecological red line supervision mechanism must be established as soon as possible. The purpose of this mechanism is to investigate development that may endanger coastal wetlands within or near the red line, and to ensure that there will be "no reduction in function and area, and no change in nature" of the ecological red line.

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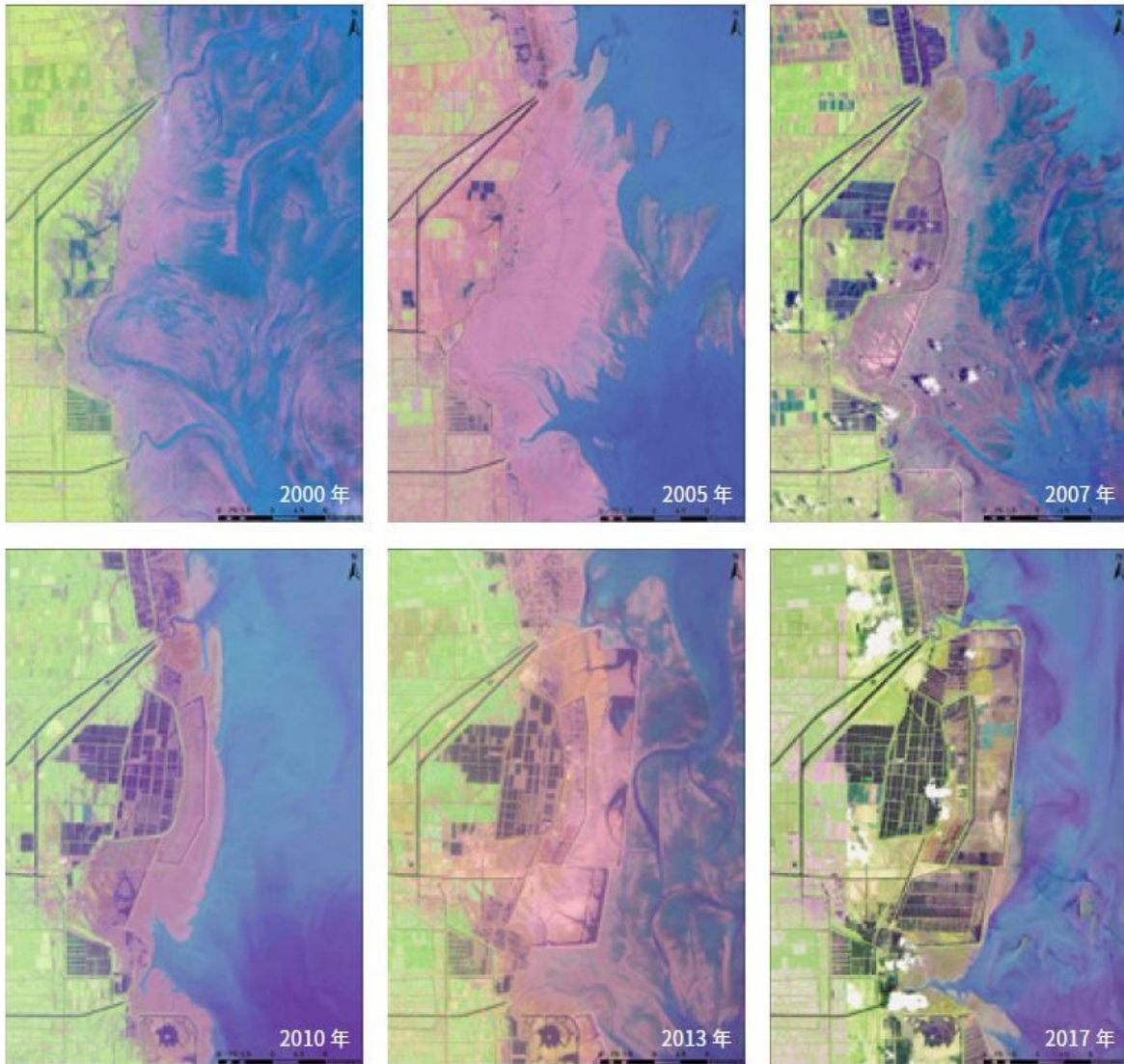
<sup>13</sup> 保尔森基金会. 中国滨海湿地保护管理战略项目[R]. 2015: 9, 20页

于洪贤,黄璞祎. 湿地碳汇功能探讨:以泥炭地和芦苇湿地为例[J]. 生态环境,2008,17(05):2103-2106.

<sup>14</sup> <http://www.yicai.com/news/4720059.html>

<sup>15</sup> State Forestry Administration.China Wetland Resources (master volume). China Forestry Publishing House, 2015. 40.





▲ 条子泥围垦规划示意图。Landsat 5 2000年9月17日、2005年3月23日、2007年3月20日、2010年5月24日、Landsat 8 2013年4月14日、Sentinel 2 2017年6月8日共6景假彩色合成影像。

*Satellite images show expansion of the land fill area at Tiaozini mudflats between 2000 and 2017.*