CEE Bankwatch Network

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Wind energy projects in Uzbekistan (2023 update)

Several pairs of the globally endangered Egyptian vulture (Neophron percnopterus) are still threatened by wind projects in Uzbekistan. Photo: Vladimir Dobrev

Background

In 2021, the government of Uzbekistan and the European Bank for Reconstruction and Development (EBRD) signed a memorandum of understanding pledging cooperation to make the Uzbek energy sector carbon neutral by 2050. The next year, four wind power projects with a total capacity of 1,600 megawatts (MW) were approved for funding by international finance institutions, including the EBRD, the Asian Development Bank (ADB), the International Finance Corporation (IFC), the Multilateral Investment Guarantee Agency (MIGA) and Japan International Cooperation Agency (JICA):

1. Zarafshon wind power project (500 MW) – promoted by Masdar (Abu Dhabi). Status at EBRD in May 2023: disbursing.

2. Bash wind power project (500 MW) – promoted by ACWA Power (Saudi Arabia). Status at EBRD in May 2023: loan agreement signed.

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3. Dzhankeldy wind power project (500 MW) – promoted by ACWA Power (Saudi Arabia). Status at EBRD in May 2023: loan agreement signed.

4. Karakalpakstan wind power project (100 MW) – promoted by ACWA Power (Saudi Arabia). Status at EBRD in May 2023: pending approval.

A total of 14 wind power projects in Uzbekistan are in various stages of development.[1]

This issue paper is a summary and update to the briefing entitled *A False Start for Wind Energy in Uzbekistan?*[2] published by CEE Bankwatch Network in 2022. The briefing explains in detail the significant negative impacts on biodiversity of the four projects caused by the poor placement of the wind turbines.

This 2023 paper reflects feedback provided by the EBRD, ADB, IFC, Masdar and ACWA Power in writing or during in-person and online meetings. On 6 April 2023, Bankwatch and civil society organisations participated in a hybrid meeting with EBRD management on wind energy projects in Uzbekistan at the EBRD's headquarters.

Although there has been some progress in recent months, especially on strategic environmental assessments for future projects, the four aforementioned projects remain quite problematic and urgent action is needed if they are to be shown as good examples of renewable energy. As of 4 May 2023, the EBRD has not provided a written response to our briefing, so the Bank's approach to implementing its Environmental and Social Policy and the application of good international practice in these projects is unclear.

Better late than never – strategic environment assessment of renewables is an important improvement

Up until now, the government has allocated plots of land to projects based on their wind potential, geological factors, existing infrastructure and interconnection to the grid, with no consideration of the environmental risks or impacts. As such, the EBRD and other lenders have almost no way to avoid the impacts caused by poor placement, apart from not investing in said projects, which should also be an option when the risks are high. Therefore, policy dialogue between the lenders and the Uzbek government is critical for making sure that land allocation and acquisition takes environmental considerations into account.

There is no adopted legislation for strategic environmental assessment (SEA) in Uzbekistan,[3] only a draft law,[4] and there is a lack of overall awareness of SEAs and capacity to coordinate them among government authorities.

[1] Uzbekistan Energy Monitor, Projects: wind, *Uzbekistan Energy Monitor*, accessed 17 April 2023.

[2] Andrey Ralev, Nina Lesikhina, A false start for wind energy in Uzbekistan?, *CEE Bankwatch Network*, 1 December 2022.

[3] Martin Smutny, Results of analysis of the existing and required national capacities for introducing a national SEA system in Uzbekistan, Presentation, online workshop, *OSCE, Umwelt Bundesamt and UNECE*, 8 June 2021.

[4] Government of the Republic of Uzbekistan, Drafted Law of the Republic of Uzbekistan on strategic environmental assessment, *UNECE*, accessed 28 November 2022.

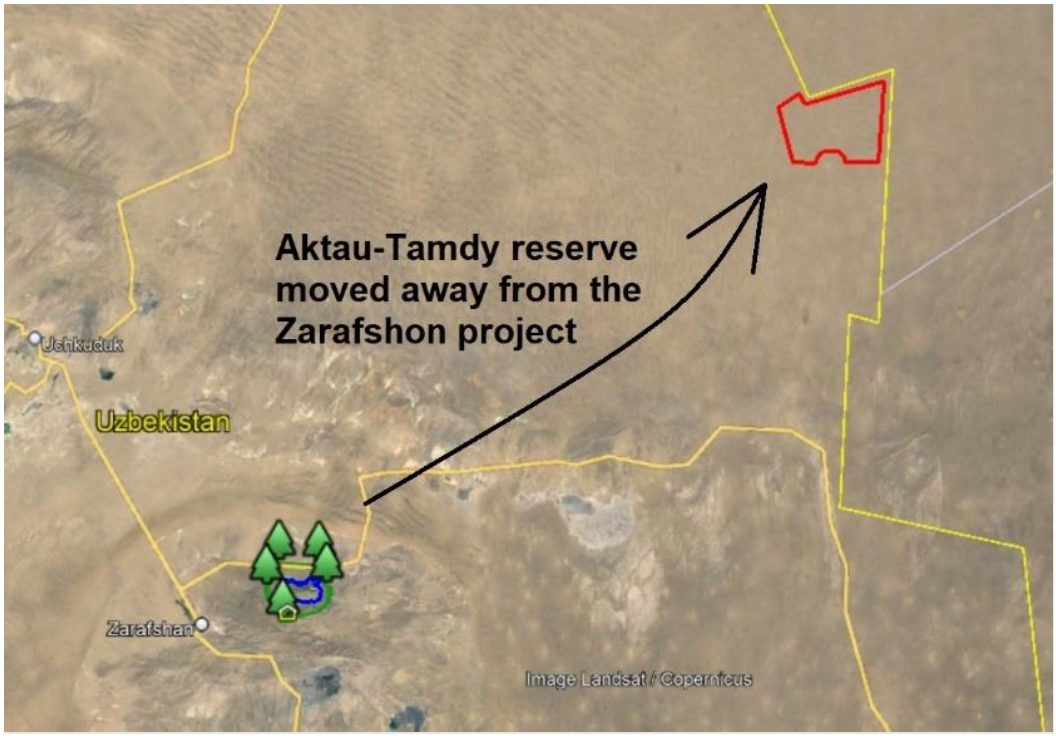
At Bankwatch's meetings with the EBRD, we were assured that in 2023, the bank is supporting the development of an SEA of renewable projects in Uzbekistan, which also includes a social assessment. Terms of reference have been prepared and a contractor should be chosen soon. The steering committee for the SEA process would include other major international financial institutions and promoters of renewable energy sources. Results from the AVISTEP sensitivity tool5 developed by BirdLife International would feed into the SEA. The EBRD plans to show the preliminary results of the SEA at the Convention of Migratory Species meeting planned in Samarkand in October 2023.

Although the assessment will not be legally binding, it should help the government choose better locations for renewable projects and avoid biodiversity-sensitive areas. This is an important step in ensuring an environmentally responsible transition to clean energy.

What still needs to be done:

- The SEA should be developed in a transparent and participatory way.
- The SEA should form the basis for making decisions on land allocation by the Uzbek government.
- The SEA should address potential transboundary effects (e.g. on migratory birds). Similar assessments should be done in other countries before large renewables projects get financed.

Gone with the wind – protected areas not declared due to wind projects



The new borders of the Aktau-Tamdy state reserve (in red) and the original borders (in green). The Mount Aktau important bird area (in blue) is completely within the original borders. Sources: UNDP-GEF, new borders provided by Masdar, CEE Bankwatch Network, Google Earth.

[5] BirdLife International, The Avian Sensitivity Tool for Energy Planning, *BirdLife International*, accessed 19 April 2023.

All four projects are located within or will have significant impacts on proposed protected areas and internationally recognised areas. The Zarafshon wind power project would impact an Important Bird Area, Key Biodiversity Area and a proposed state reserve. The Bash project would affect an Important Bird Area and a Key Biodiversity Area. The Dzhankeldy project is located within a proposed sanctuary, while the Karakalpakstan project is located within a UNESCO Man-and-Biosphere Reserve and a proposed national park.

The Zarafshon wind project is probably the main reason for 'moving' the Aktau-Tamdy state reserve away from the scientifically proposed borders. The Tamdytau mountains surrounding the Zarafshon project site were proposed for protection after extensive research carried out by several projects, including the UNDP-GEF project entitled *Strengthening the Sustainability of the National Protected Area System by Focusing on Strictly Protected Areas*.

The results of the UNDP-GEF project were endorsed by the Uzbek government and include a map and description from 2013,[6] where it is clearly visible that the protected area called Aktau (Tamdy) in the Tamdy district is located around the highest peak in the Kyzylkum desert – Mount Aktau. Decades of research has shown the importance of the area; it is the last remaining habitat of argali sheep in central Uzbekistan it contains many nests of threatened birds and is home to endemic flora. Part of the area was declared an Important Bird Area in 2007 and later a Key Biodiversity Area.

When in February 2022, a presidential decision[7] declared a 40,000-hectare piece of pastureland in the Tamdy district to be the Aktau-Tamdy state reserve, without specification of the exact location, all experts thought that Mount Aktau would be finally protected.

However, in a written communication to Bankwatch from 17 August 2022, the EBRD claimed that the Aktau-Tamdy state reserve would not be located within the project site, but more than 100 kilometres away. A map provided by Masdar on 8 October 2022 confirmed that the new protected area would be located in the Tamdy district, but next to the border with Kazakhstan. This is part of the Kyzylkum desert, away from the Tamdytau mountains, in a place that had never previously been proposed for protection and, to the best of our knowledge, has no geographical names related to 'Aktau'. Despite the significant scientific evidence justifying its proclamation, it seems that the Aktau-Tamdy state reserve's location has been changed to avoid conflicting with the Zarafshon project (two of the turbines were located within the original borders of Aktau-Tamdy). This has perhaps happened in part because of the Uzbek ministries not exchanging information and in part because of the flawed due diligence of lenders, who approved a wind project located partially within a proposed protected area.

Similar problems are expected with the Dzhankeldy wind power project – half of the project is located on the Kuldzhuktau ridge, which was proposed as a sanctuary by the same UNDP-GEF project for paleontological, botanical and zoological reasons. Likewise, the Karakalpakstan project is located entirely

[6] Natalya Beshko, V. Zagrebin, A. Popov, Furkat Khassanov, O. Mitropolskaya and K. Magdiev, 'Рекомендации По Расширению Системы Охраняемых Природных Территорий в Узбекистане', Baktria *Press*, December 2013.

[7] President of the Republic of Uzbekistan, Decision of the President of the Republic of Uzbekistan, on measures for the creation of protected natural areas, 16 February 2022.

within the Sultanuizdag ridge, which has been proposed as a national park by the World Wildlife Fund's (WWF) Econet programme.[8]

Furthermore, the Zarafshon and Bash projects are located very close to Important Bird Areas and Key Biodiversity Areas. Although the turbines are located just outside the borders of those areas, no assessment on the impacts was carried out.

After the publication of the briefing, Masdar, the EBRD and the IFC recognised in meetings with Bankwatch the need to protect Mount Aktau and promised to engage with the government. As of 4 May 2023, we are not aware of any steps taken by the government, so this unique area next to the Zarafshon project, as well as the areas next to the other wind projects, remain unprotected and threatened by new mining and energy projects.

What still needs to be done:

- Multilateral development banks must encourage the government of Uzbekistan to finalise the establishment of the proposed protected areas within the scientifically justified borders of the Aktau-Tamdy state reserve, Kuldzhuktau sanctuary and Sultanuwais Ridge national park.
- Renewable energy projects in Uzbekistan should avoid making any impact on the conservation objectives and integrity of the protected areas, priority biodiversity features and critical habitats. For every such project, an assessment of impacts on established and proposed protected areas should be conducted and considered prior to making a final decision on the project's design and location.

A bird's eye view – impacts on threatened bird species

All the wind projects discussed in this issue paper are located in core areas of globally and nationally threatened bird species, with especially significant impacts caused by turbines situated close to nests of Egyptian, cinereous and bearded vultures, Eastern imperial and golden eagles, and saker falcons. The new transmission lines for the Bash and Dzhankeldy projects might pose a significant collision risk for the Asian houbara bustard and trigger the critical habitat requirement. The Bash project has 34 turbines located on the edge of the Ayakagytma lake Important Bird Area, potentially threatening a variety of water birds.

In a response to Bankwatch dated 15 November 2022, the IFC acknowledged that '[the Zarafshon project area] is an important area for a number of raptors' and committed to 'implementing the mitigation hierarchy, starting with avoidance by moving 15 turbines'. However, as Masdar explained to Bankwatch during a workshop in November 2022, these turbines were moved away based on old findings, not on the most comprehensive nest survey finalised in 2022, which found new nests in areas close to proposed turbine sites.

This was the case at the other project sites as well. Detailed nest surveys were done in 2022, when the locations of the wind turbines were already fixed in the environmental and social impact assessment (ESIA)

[8] World Wildlife Fund, Development of the Econet for long-term conservation of biodiversity in the Central Asia Ecoregions, *World Wildlife Fund*, accessed 5 May 2023.

reports. After the 2022 nest survey at Dzhankeldy, for example, the ESIA study was updated with several new nests found, but, according to the updates to the ESIA, 'turbines could not be microsited further away from the known nesting locations due to technical and economic constraints'.[9] This raises questions about the relevance of the proposed avoidance and mitigation measures.

The best international practices (on-time nest search, core area delineation, satellite telemetry) were not used when assessing the impacts on nesting birds. The core area is recognised as the most vital area for population survival, and consequently, its biologically meaningful delineation is of great importance for robust conservation decision-making and spatial planning.

The wind turbines were not moved away from the core areas of the key species, but rather some minimal buffers from the active nests were proposed: 500 metres (Zarafshon), 750 metres (Bash) and 750 metres 'where possible' (Dzhankeldy). The recommended buffers were not based on scientific studies on the ground or good international practices, as required by the lenders' policies. Scientific articles[10] and national standards recommend excluding the entire core zone of threatened species, identified for example by tracking the pairs for at least one year.

Probably the most underestimated impact within the ESIA studies is on the globally endangered saker falcon. Hungarian studies show that adult sakers avoid wind turbines, meaning that those areas between the wind turbines are lost habitats for them, even if there is plenty of food there. Juvenile sakers are less afraid of wind turbines, which makes them more at risk of collision.[11] Besides their fast flight, there is recent data showing that two falcons were killed in Austria after colliding with wind turbines.[12]

One important improvement is that a modern and expensive shutdown on demand system called IdentiFlight will be installed to halt the operation of specific turbines if priority bird species fly close by. However, this system has significant limitations and cannot solve the problems of wrongly placed turbines:

- The shutdown on demand system could decrease bird mortality, but does not eliminate it, with a project in Tasmania given as an example.[13]
- The system does not work during the night, leaving bats and birds that fly at night unprotected from collision.
- The system is also not effective enough when birds come from below and when nests are too close to turbines.[14]

[9] 5 Capitals, Summary of Material Updates to the ESIA package, *ACWA Power*, September 2022.

[10] Dimitris Vasilakis, D. Philip Whitfield, Stefan Schindler, Kostas Poirazidis, and Vassiliki Kati, 'Reconciling endangered species conservation with wind farm development: Cinereous vultures (Aegypius monachus) in south-eastern Europe', *Biological Conservation 196 (2016)*, 10-17, 2016.

[11] Convention on the Conservation of Migratory Species of Wild Animals, Proposal for inclusion of species on the Appendices of the Convention on the Conservation of migratory species of wild animals, *Convention on the Conservation of Migratory Species of Wild Animals*, accessed 28 November 2022.

[12] Personal communication, Matyas Prommer.

[13] Goldwind Australia, Cattle Hill Wind Farm Annual Environmental Review 2022, *Cattle Hill Wind Farm*, October 2022.

[14] Janine Aschwanden and Felix Liechti, Testing of the automatic bird detection system Identiflight on the WindForS test field as part of nature conservation research (NatForWINSENT), *Swiss Ornithological Institute, Sempach*, 2020.

- It cannot mitigate the abandonment of nests, the main risk for the globally endangered saker falcon (*Falco cherrug*), because of disturbance and wind turbine area avoidance.

In meetings with Bankwatch, all lenders committed to reviewing the 2022 results of the raptor surveys, but were reluctant to consider changing the location of wind turbines based on potential impacts to bird nests. Moreover, the 2022 studies have not been made available more than nine months after their completion, despite repeated requests for disclosure.

What still needs to be done:

- The findings of bird nest surveys conducted in 2022 for all projects should be made available.
- Wind turbines and transmission lines should be moved away from core areas around the nests of the most threatened species of birds, including saker falcons, Egyptian, cinereous and bearded vultures, steppe eagles and MacQueen's bustards.
- Until core areas are defined in scientific studies (satellite telemetry), the precautionary principle should be applied, and no turbines should be built closer than 3 kilometres from active or recent nests of these species. The design of the Zarafshon, Bash, Dzhankeldy and Karakalpakstan wind power projects should be adjusted to ensure sufficient buffer zones.
- The 34 turbines of the Bash project closest to the Ayakaghytma lake important bird area should be moved east of the border.
- Additional studies on the potential collision of houbaras with transmission lines (for Bash and Dzhankeldy) should be conducted prior to construction to avoid significant impacts and not rely on compensation measures.
- Buffers of at least 200 metres from all ridgelines and cliff edges should be adopted (the maximum height of the turbines is between 172.5 and 185 metres).

The Tamdytau mountains, where a national park and state reserve were planned. Photo: CEE Bankwatch Network