



Benjamin Jargstorf in the Hanseatic League town, Wismar, where he lives during the brief periods when he is not working abroad.

The advisor

Benjamin Jargstorf has been traveling the world working on renewable energy projects for more than thirty years now. We visited the restless consultant.

By Peter Korneffel

Back when there were still no women serving on the Gorch Fock – and the general consensus was that such a situation could not turn out well – a young man joined the crew of the German Navy's tall ship. Little did he know at the time that this would be how his career in the renewables sector got started. Benjamin Jargstorf spent three months at sea as an officer cadet. And, in 1986, that is exactly what the project leader of the KfW Group's technology division – himself a lieutenant commander in the Reserves – wanted to hear. "Because of my time on the Gorch Fock, I was automatically an expert on wind in his eyes," Jargstorf recalls, thinking of how he won his first KfW bid. He was soon developing wind farms in exotic countries such as Haiti, Kenya, Cape Verde, and Mauritius. "Back then, almost no one knew anything about wind energy," the now 63-year-old electrical engineer and sociologist says. "I was just lucky."

Jargstorf then started to focus on alternative energy concepts with projects such as setting up a renewables division for consulting firm Decon. In 1991, he became CEO of Tandem, an investment company for environmental projects based in Bremen, Germany. In this position, he gained engineering expertise that still guides him to this day. "Maintenance costs are decisive for a wind turbine. Investment costs are secondary in comparison." After a few years, he left Tandem, although not without acquiring a private share of the company's Hobendiek wind farm. "We pretty much financed our children's education with the profits," he says over a cup of Earl Grey in Café Glücklich, not far from his home in Wismar, Germany. He has not spent a lot of time in the beautiful build-

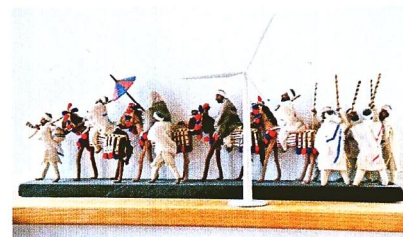
ing on the shore of the Baltic Sea, a former brewery from the sixteenth century. Already in the 1990s, Jargstorf headed to Africa and distant islands. "I wasn't interested anymore in putting up with the local bureaucrats and opposition from the utilities."

The Portuguese islands of the Azores, Europe's weather lab in the Atlantic, caught his eye some time ago. He helped develop the archipelago's first wind farm for the KfW Group – "when MAN's 30-kilowatt Aeroman first entered the market." In the following years, he worked with regional utilities to plan nine wind farms on the Azores, since 1995 with his own

"An economy based on recycling, resource protection, and efficiency" – the pillars of his company's philosophy.

company, Factor 4 Energy Projects. The most important point of contact there is the answering machine, which patiently accepts all calls while the boss – the only constant member of the Factor 4 staff – is off talking with municipal utilities in Palau, Indonesia, or Barbados or measuring near-record wind speeds in Morocco.

Factor 4 tends to place great importance upon cell phone towers when choosing sites in developing countries, most recently in a project in Jamaica supported by the Inter-American Development Bank. "If we were using anchored met masts there, we would have had to fence them in and guard them. With the cell phone towers, which are also 50 meters high, we don't have to worry about that," he explains, adding that "once we've found the best spot for wind, we of course use Measnet procedures for on-site measurements." Improvisation is indispensable in this business. In San Pablo



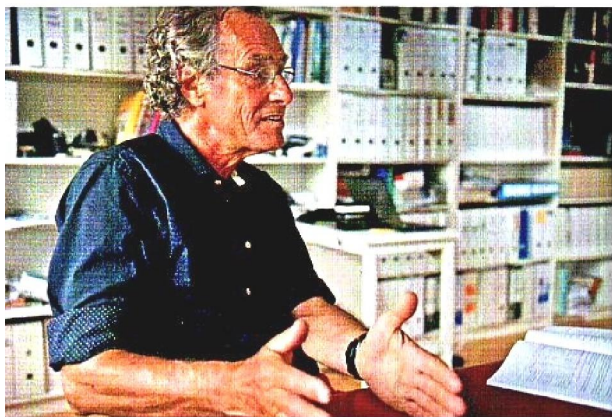
de Iquitos, for example, he once converted a Wuseltronik wind data logger so it could store solar data – much more effective than waiting for the UPS man to make it to the Peruvian rainforest.

Wind energy is Jargstorf's main focus, but he often does consulting for biomass projects, especially in Africa. In Al Jazirah, Sudan, he developed an alternative to charcoal burners for wood using energy from cotton stalks. In Kaolack, Senegal, peanut shells are now sometimes used for energy instead of charcoal.

The world traveler is also facing new challenges in the Pacific. On the Galapagos Islands, where the more than 20,000 residents are heading towards 100 percent green energy, he is working with electromobility along with wind and solar. "The approximately 2,000 motorcycles on the islands could

be replaced right now with serially produced electric scooters," he suggests, standing next to the outlet for his own scooter in his courtyard. "Their range of 50 kilometers is more than enough for the islands."

Ethiopia in eastern Africa is one of the countries he focuses on the most. He lived and worked there from 1997 to 2004, including a stint teaching at the University of Addis Ababa. The country gets 95 percent of its electricity from hydropower, with the rest coming from diesel generators. Such dependency on one energy source is dangerous. "Right when demand for power is greatest in Ethiopia, that's when rainfall tends to decrease and the dams go dry." In his office in Wismar, under the watchful eyes of an Ethiopian wedding procession, Jargstorf pulls a graph from the color printer. "And right when rainfall is low in Ethiopia," he says, pointing at its curves, "we have strong winds – and vice versa. Wind



Jargstorf explains his company philosophy.

and water are inversely proportionate in Ethiopia.” He is currently contracted by a U.S. investor as a consulting engineer for the planning stages of a 100-megawatt (MW) wind farm. The entire project adds up to 400 MW, an extraordinary figure for Africa.

That is one of the moments that make up Jargstorf’s life as a global energy consultant. Here you can see what inspires him and sends him around the world as an ambassador for renewables, complete with his motto, borrowed from the Club of Rome’s report: “Factor Four. Doubling wealth, halving resource use.” He continues, “An economy based on recycling, as well as resource protection, and efficiency,” are the pillars of his company’s philosophy. German politicians like to talk the talk with those words, but, besides implementing the tin can deposit and ludicrous waste regulations, they haven’t done much to walk the walk, he complains. He believes that emissions trading is “a farce” because the energy sector is mostly getting the certificates “delivered for free” so far. Jargstorf believes this is a missed opportunity to start down the right path towards a future energy supply.

Jargstorf spares no one his criticism. He relegates his competitors in the consulting market to “the suburbs” of development aid and blasts them for their “obscene” fees. He also sees from time to time how developing countries stand in their own way. In Morocco, he could not get support for a wind power project sug-

gested by the KfW Group. “A 3-MW demonstration wind farm? We could easily get another 3 MW just by oiling our turbines,” he was told. As a consultant, Jargstorf gave Morocco his expertise – and later, others got to celebrate the breakthrough in wind energy, “with a 50-MW project on the site I recommended.” But he does not let himself be defeated by that kind of thing. Even in his early years as a consultant, when he was conducting measurements for one of China’s first wind farms, on an island off of Shanghai, his interpreter dubbed him

“Comrade-in-Arms Benjamin.”

Does he see himself as an aid worker? “Not at all! Our development aid mostly tends to stabilize the prevalent underdevelopment, especially in Africa. It prevents changes in socioeconomic conditions,” the energy consultant explains. Development aid may create more or less successful project structures, “but no independent development,” he believes.

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In light of many states’ great dependence on international development aid, he believes much more harm is done than good, saying that “developing countries are dealing with massive donor saturation,” and many are only concerned with getting more money. “Already, more than 50 percent of Ethiopia’s national budget depends on international financial aid,” Jargstorf warns. “Other countries put an end even to successful energy projects just to get new projects and bring in new cars, computers, and equipment.”

“Corruption never directly affected Factor 4,” the engineer asserts. Still, Jargstorf has heard much about misfeasance and favoritism in developing countries. “On the Colombian island of Providencia, the governor wanted to move the agreed site for a wind farm right before

the financing contract was to be signed,” he recalls – “to a completely useless plot that belonged to his brother.” On Corvo, one of the Azores Islands, it was a different story. “There, the governor wanted to change the wind farm site – which had already been measured – so that the turbines would be directly in front of his personal arch-enemy’s house!” These abuses of power have an effect – both projects have still not been completed, despite outstanding wind conditions.

Jargstorf has faced opposition even at the highest levels. He says the “greatest disappointment of my 30-year career” was when the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) ended their contract with him. In the course of conducting a “meta-evaluation” for the German development organization, he had taken a close look at 14 renewables and energy-efficiency projects worldwide. The final report was critical, and Jargstorf was shown the door – they “fired me without a word and ended our cooperation.” It was an “incomprehensible situation” for the experienced consultant. “How can it be that a federal development institution can simply ignore constructive criticism and just keep looking for experts until they find one who tells them what they want to hear?” The engineer and consultant, who has gathered experience in 58 countries around the world, feels rejected by the top authorities.

Benjamin Jargstorf is often jetlagged and occasionally restless, but he has goals that will make all the long journeys and disappointments worth it. He considers himself “lucky.”

We are also lucky to even catch him in Wismar. His passport, still wet from a recent sailing trip, is drying on the windowsill, and an e-ticket for a flight to Chile is emerging from the printer. Chile, where his wife is a consultant for the Ministry of Energy – for renewable energy, of course – is where he currently calls home. The next trips to Ethiopia and Jamaica are already in his diary, with Antigua, St. Vincent, and St. Lucia waiting their turn. Really, it is doubtful that his passport, whose 48 pages have been stamped full in just four years, will ever be completely dry. ◀