The e-bike has become an increasingly popular means of transport in recent years. The e-bike boom is evident in private households as well as in other sectors, such as logistics or bike-sharing services. The global e-bike market was estimated at nearly USD 24 billion (EUR 20.15 billion) in 2020 and is forecast to continue growing over the next few years (Mordor Intelligence 2019).

Social and ecological impact of e-bike production

However, human rights violations and environmental pollution often occur in the production of e-bikes, especially upstream in the global supply chains, i.e. in the extraction and processing of raw materials. The production of lithium-ion batteries (Li-ion batteries) used in e-bikes is associated with serious human rights and environmental problems. Driven, among other things, by the shift to e-mobility, the demand for the raw materials used in Li-ion batteries, such as lithium, nickel, cobalt, graphite or manganese, will increase dramatically in the coming decades (Buchert et al. 2017), exacerbating the impact on human rights and the environment. The first to suffer from the negative impacts are the marginalised communities in the countries where raw materials are being extracted. Thus, e-bike manufacturers and industry associations need to take responsibility and respond to the grievances in their supply chains.

The "E-mobility inspected" study is intended to help manufacturers of e-bikes and drive systems understand that it is in their interest to take action to ensure corporate due diligence. By taking action, they can improve their image and further strengthen their position compared to other means of transport. A mobility transition can only be socially just and ecologically sustainable if it goes hand in hand with a new approach to extracting raw materials, aiming at drastically reducing global consumption of metals and minerals in particular.
Interviews with associations of the e-bike industry

First, we highlight the human rights and ecological impacts caused by extracting the raw materials used in e-bike batteries. Second, the study examines how aware manufacturers and industry associations are of the issues surrounding human rights and ecological risks in their supply chains as well as the extent to which the industry sees itself as a potential pioneer. In addition, the study focuses on the existing approaches manufacturers have taken to implementing due diligence, e.g. with regard to individual measures or activities within the framework of industry initiatives. For this purpose, we contacted industry representatives and asked them about the aspects mentioned above in guided interviews and questionnaires.

The interviews revealed that the industry strongly believes it is committed to ecological issues and sustainability. The bicycle is an environmentally friendly product. According to Verbund Service und Fahrrad e. V. (VSF), environmental protection is part of the identity of many manufacturers and distributors, some of whom are closely associated with the environmental movement. According to the associations, they take various measures, such as offering training courses to reduce packaging waste or promoting approaches of the economy for the common good among their members. In addition, the VSF has awarded a quality label for products since 2012, which, among other things, covers the ecological and social aspects of production. According to the Zweirad-Industrie-Verband e. V. (ZIV), the industry also sees itself as a trailblazer of e-mobility. They are surprised by critical enquiries, for example, about the eco-balance of e-bikes, as the industry has always seen itself as a pioneer.

Company survey

After carrying out interviews at association level, we then conducted a company survey. The authors selected a total of twelve manufacturers of e-bikes and drive systems that are particularly relevant for the German market and are registered in Germany. The selection criteria were the size of the company, the number of employees, e-bike sales and, if available, the revenue. For the company survey the authors designed a questionnaire aiming to find out whether and to what extent the companies in the German e-bike industry take into account the environmental protection along their global supply chains. The questionnaire comprised a total of 18 questions.

Nine out of the twelve companies surveyed responded to our request. Seven of the nine respondents declined to participate. Only two companies, Riese & Müller and Bosch, completed the questionnaire, leaving the authors with not enough responses for a systematised evaluation of the company survey.

The reason given by seven companies for not participating was lack of time. At the same time, it seems reasonable to assume that companies that have already dealt with the issue also tend to perceive fewer obstacles to participating. The low response rate to our survey indicates that the e-bike industry is not sufficiently engaging with due diligence in the field of human rights.

The industry’s lack of scrutiny of its supply chains

The lack of transparency of many companies can also be found in other areas. On their websites and in corporate social responsibility (CSR) reports, there are often commitments to sustainability, but little or no information on human rights risks and how companies deal with them. This makes it difficult for consumers and investors to make informed purchase and investment decisions. At the same time, companies lose an opportunity to learn, e.g. by identifying cross-sectoral challenges and developing appropriate solutions. However, transparent reporting is a core element of due diligence. If the companies surveyed were already producing the relevant reports, they would have been able to answer our questions without much effort.

It is therefore all the more gratifying that at least Riese & Müller and Bosch took part in the company survey. Both are companies which have set themselves ambitious goals in terms of sustainability. Riese & Müller aims to be the most sustainable company in the e-bike industry by 2025 and, as such, to change the industry as a whole (Riese & Müller 2019). Bosch has also set comprehensive sustainability goals with its “New Dimensions – Sustainability 2025” strategy (Bosch n.d.). It is true that setting ambitious goals does not automatically mean ambitious implementation. Nevertheless, the responses of the two companies can shed some light on how far they have already come in implementing due diligence in the field of human rights.

It is clear from the responses that both companies are already addressing human rights due diligence and have developed approaches to integrate it into their operations. However, the information provided does not always make clear how far the approaches go. For example, it remains unclear which specific risks were identified in the risk analysis and at which level of the supply chain they are located. In this respect, it is unclear whether the due diligence measures taken have an actual effect on rights holders at the most upstream end of the supply chain.

Overall, it is fair to say that both companies have developed and are implementing due diligence processes in the field of human rights, which must be acknowledged. In view of the rather modest results of the interviews with the industry associations, Riese & Müller and Bosch seem to be several steps ahead of other companies.
Moreover, the companies are striving for transparency and participated in the company survey. At the same time, it is clear from the responses that neither Bosch nor Riese & Müller have fully implemented the core elements of human rights due diligence. If the authors interpret these results as an indicator for the rate of implementation in the e-bike industry as a whole, it is clear that there is still a lot of potential for development.

Possible course of action
Considering that the industry apparently knows very little about due diligence in the field of human rights, a first step towards mitigating this situation could be for the associations to take a joint approach. In the in-depth interviews, some of the associations were open to the idea and expressed interest in supporting their members on the issue of due diligence. This could be done, for example, by conducting surveys based on the UN Guiding Principles and the OECD Guidelines.

1. Raw materials initiatives
One way of creating greater transparency in the upstream supply chain can be membership in raw materials initiatives. The extent to which membership in, for example, the Initiative for Responsible Mining Assurance (IRMA), the Global Battery Alliance (GBA) or the Responsible Minerals Initiative (RMI) actually triggers a due diligence process is questionable. Nevertheless, membership for companies in the e-bike industry could be a first step in the right direction to address the issue of human rights due diligence for the first time. A united industry approach would be a good step. By demanding membership in an ambitious raw materials initiative, associations could encourage companies (cf. VDMNW 2019).

2. Due diligence according to the UN Guiding Principles
As there are currently no initiatives to ensure consistent implementation of the due diligence process by all members in line with the UN Guiding Principles and OECD Guidelines, it would make sense for the e-bike industry to proactively drive the implementation of a due diligence process. An essential part of this is establishing grievance mechanisms. These could be introduced both at company and industry level.

According to the UN Guiding Principles, grievance mechanisms should meet the following criteria: legitimacy, transparency, accessibility, rights compatibility, and balance (UN OHCHR 2011). The OECD Guidelines explicitly call on companies to actively use complaints in the sense of an “early warning system” (OECD 2011: 40). In order to strengthen the preventive character of grievance mechanisms, the quality of the formal process that begins after a complaint has been filed must be constantly reviewed: how seriously are complaints taken?

How transparently is the outcome reported and do the complaints have negative consequences for the whistle-blowers?

3. Statutory requirements
The measures listed above are voluntary. However, the experience of recent years has shown that it is not enough to rely on voluntarism. Globally, standards on working conditions and environmental aspects do not increase because companies voluntarily agree to do so. The opposite is the case. In the raw materials sector in particular, the rising global demand for metals and minerals, fuelled among other things by the needs of e-mobility, is leading to serious human rights violations and environmental destruction. Moreover, since the review of the National Action Plan (NAP) on Business and Human Rights showed a clear failure of voluntary corporate responsibility, it is clear that only binding legislation can effectively guarantee the implementation of due diligence obligations.

Possible starting points for this would be, on the one hand, a supply chain law that always includes potentially affected parties and references ILO Convention 169. However, a government bill on the supply chain law, which was presented in early February 2021 and adopted by the cabinet in early March 2021 (BMAS 2021), has so far revealed numerous weaknesses. A European Supply Chain Act would also be a conceivable solution to take account of business relationships across countries. However, the process of adopting such regulations usually takes several years, which would not be acceptable in view of ongoing human rights violations.

Ultimately, sectors like the e-bike industry which rely on global supply chains also need global rules. This is why there is the UN Treaty Process at the UN level, which was launched in 2014 by the UN Human Rights Council on the initiative of states in the Global South. The aim of the treaty process is to draw up a UN agreement on business and human rights and thus to anchor human rights due diligence as an international standard in a globally binding manner. If this happens, signatory states must oblige companies by law to respect human rights and, in the event of violations, enable those affected to claim and enforce their rights.

As is the case for all industries that rely on the extraction of raw materials, the same applies to the e-bike industry: in order for the mobility transition not to lead to human rights violations and shift environmental destruction to other countries, it must go hand in hand with a raw material transition. This must include drastically reducing the consumption of raw materials, establishing functioning recycling systems, designing sustainable products and keeping to the principles of the circular economy. Only if these aspects of a raw material transition are taken into account can an ecological and globally just mobility transition succeed.
Literature

- Picture: picture alliance / Michael Thurnbeck