



2023年第4期总379期

## 粮食和食物安全专题

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中国农业科学院农业信息研究所

联系人：刘靖文；顾亮亮

联系电话：010-82109652

邮箱：[agri@ckcest.cn](mailto:agri@ckcest.cn)

2023年1月23日

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## ➤ 政策法规

### 1 . Improving human rights and the environment along global supply chains (改善全球供应链的人权和环境)

简介：Germany's Supply Chain Due Diligence Act enters into force on the 1st January 2023, the Federal Government announced at the beginning of this year. It will see the first comprehensive, world-wide regulation of corporate due diligence obligations with regard to the respect of human rights and the protection of environmental interests. With the entering into force of the Supply Chain Due Diligence Act (LkSG) on the 1st January, companies are now obliged to set up effective risk management to identify, avoid and minimise the risk of human rights violations and specific types of environmental degradation. According to a German Government press release, the Act sets out the preventative and remedial measures needed in companies' own operations and along their supply chains and obliges them to establish a complaints procedure and regular reporting. It will initially apply to companies in Germany with at least 3,000 employees. From 2024, it will also apply to companies with 1,000 employees or more.

来源：rural 21

发布日期：2023-01-17

全文链接：

[http://agri.ckcest.cn/file1/M00/03/49/Csgk0Yge0fyAcb6BAA3UQu1jr\\_k529.pdf](http://agri.ckcest.cn/file1/M00/03/49/Csgk0Yge0fyAcb6BAA3UQu1jr_k529.pdf)

## ➤ 前沿资讯

### 1 . Action for Water Adaptation and Resilience (水资源适应性和复原力行动)

简介：Billions of people are facing inadequate access to water. A new initiative aims to decrease water losses world-wide and improve water supply. Launched during the UN Climate Change negotiations in November 2022, the new Action for Water Adaptation and Resilience (AWARe) initiative reflects the importance of water both a key climate change problem and a potential solution. Currently, 3.6 billion people face inadequate access to water at least one month a year, and this is expected to increase to more than 5 billion by 2050. UN-Water has reported that between 2001 and 2018, 74 per cent of all natural disasters were water-related (i.e. flood and droughts). Water-related hazards are therefore an important part of the new initiative to achieve Early Warnings For All in the next five years.

来源：rural 21

发布日期：2023-01-13

全文链接：

[http://agri.ckcest.cn/file1/M00/03/49/Csgk0YgezxmAYpIHAAva3\\_bP0tc335.pdf](http://agri.ckcest.cn/file1/M00/03/49/Csgk0YgezxmAYpIHAAva3_bP0tc335.pdf)

## ➤ 相关成果

### 1 . Reducing nitrogen pollution (减少氮污染)

简介: To increase food and feed supply, agriculture has used more and more industrial nitrogen fertilisers and manure. However, over half of these nitrogen inputs to croplands are currently lost to the environment, contributing to air pollution and its related diseases, water eutrophication, soil acidification, climate change and biodiversity loss. The scientists show that if smart abatement measures were implemented on global croplands, these global changes could generate USD 476 billion in societal benefits for food supply, human health, ecosystems and climate, at a net abatement cost of only USD 19 billion. “However, these measures and technologies are seldom fully implemented by farmers due to many constraints, such as a high heterogeneity of best practices on the local scale and high implementation costs for farmers,” says lead author Baojing Gu of Zhejiang University, China.

来源: rural 21

发布日期:2023-01-16

全文链接:

[http://agri.ckcest.cn/file1/M00/10/1B/Csgk0GPIGZSABLrrAAr\\_jWC\\_VzGg119.pdf](http://agri.ckcest.cn/file1/M00/10/1B/Csgk0GPIGZSABLrrAAr_jWC_VzGg119.pdf)

### 2 . New Solar Panels Allow Farmers to See the Light (新型太阳能电池板让农民看到曙光)

简介: Researchers harness sunlight to harvest energy and food together, utilizing the full spectrum of light to improve outputs. Arable land is at an all-time premium. Since the last ice age, humans have cleared one-third of the earth’s forests and two-thirds of its wild grasslands, much of it for agriculture. And as the world population—8 billion as of last November—continues to expand, there’s ever-increasing pressure on farmland to produce not only more food but clean energy as well. In places such as Yakima, Washington, it’s created competition for space as land-hungry solar arrays gobble up available fields. Last month, the state’s Energy Facility Site Evaluation Council approved plans to cover 1,700 acres of agricultural land with photovoltaic (PV) panels, brushing aside the county’s moratorium on solar projects and fueling community concerns over the long-term impacts of losing cropland.

来源: modern farmer

发布日期:2023-01-16

全文链接:

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### 3 . Aquaculture is not the solution to overfishing (水产养殖不是解决过度捕捞的办法)

简介: The growth rates for fish and seafood production in aquaculture are limited and have already passed their peak, a study says. Scientists say that without wild fish, the world

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would face an annual shortage of fish food of about 71 million tons by 2030. Moreover, an increased focus on aquaculture could lead to devastating socioeconomic consequences for low-income coastal countries. A large proportion of all fish species in the ocean used by humans are overfished. The problem is well known, yet global fish consumption continues to rise. Aquaculture, the farming of aquatic life for human consumption in contained systems, is often seen as the solution to the dilemma. This aquaculture optimism cannot stand up to reality. This is the conclusion of a recently published study by ten institutes from different nations with participation from GEOMAR Helmholtz Centre for Ocean Research Kiel, Germany, in the journal *Frontiers in Marine Science*. The researchers evaluate publicly available time series data from the Food and Agriculture Organization of the United Nations (FAO) that illustrate the change in aquaculture productivity from 1950 to 2018 and allow conclusions to be drawn about its current role in global demand for edible fish.

来源: rural 21

发布日期: 2023-01-13

全文链接:

<http://agri.ckcest.cn/file1/M00/10/1B/Csgk0GPIHE2ABjUWAA1jiVkorMg231.pdf>