Digging Deep: Is Our Smart Future Clean? This month we dig deep into clean energy & smart tech, only to find shades of grey and a black market lurking upstream in the global supply of rare earths. Although mostly unpronounceable, rare earths used everywhere & every day are highly polluting resulting in contaminated drinking water sources, "cancer villages" and toxic e-waste in China. Can we build a clean & smart future on toxic rare earths? Find out if your smartphone, tablet or electric car is party to this "open dirty secret". Are electronic giants and other countries helping China with the crackdown on this black market? Elsewhere, Green Initiatives has launched the [WE] Project in Shanghai to ensure safe and easy ways to tackle e-waste and WRI China has released Baseline Water Stress maps for China with higher granularity. We also look into options for the parched North: how wind & solar power can provide relief and how the Hebei pilot in Water Resource Tax reform can point the way forward in groundwater management. With much at stake, it is crucial to get on top of these "hidden risks". Accelerated adoption of 'clean' tech since COP21 means it is time to rethink our clean & smart future to ensure we do not build it on a foundation of environmental crime and illegal trade at the expense of China's water resources.

CHINA WATER RISK

JULY NEWSLETTER

EDITORIAL 🐞

Digging Deep: Is Our Smart Future Clean? This month we dig deep into clean energy & smart tech, only to find shades of grey lurking upstream in the global supply of rare earths. Although mostly unpronounceable, rare earths used everywhere & every day, are highly polluting, resulting in contaminated drinking water sources, "cancer villages" and toxic e-waste in China.

Can we build a clean & smart future on toxic rare earths? Lead author, Liu, of our new report: *"Rare Earths: Shades Of Grey - Can China continue to fuel our clean and smart future?"* explores this paradox: digging into China's environmental costs, soil & water contamination, depletion of reserves and the crackdown on the black market supplied by illegal mining.

At the height of the black market in 2011, foreign customs data exceeded that of China's official export quota by 120%. Can and should China, as the top rare earth producer for the last 20 years, bear the brunt of this cost? Clearly China cannot eradicate the black market alone, so why aren't nations importing rare earths or electronic giants moving to improve transparency in their supply chains?

Or is it our responsibility as consumers? Find out if your smartphone, tablet or electric car is party to this "open dirty secret".

Over consumption, built-in obsolescence and lack of regulations have also led to e-waste. Faced with mountains of toxic e-waste, Green Initiatives launched the [WE] Project in Shanghai. Learn from co-founder Nitin Dani easy, safe & scalable ways to recycle phones, home appliances & more.

Pollution exacerbates water stress & scarcity. Here, we showcase WRI's latest Aqueduct Baseline Water Stress (BWS) maps for China. BWS China developers Dr Jiao Wang, Dr Lijin Zhong & Dr Ying Long walks us through the new map's key differences and higher granularity.

With the North more exposed to water stress than the South, we also reviewed options for the parched North: how wind & solar power can provide relief and how the Hebei pilot in Water Resource Tax reform can point the way forward in groundwater management. Get the lowdown on sunny & windy spots as well as differences between water resource fees & taxes.

With much at stake, it is crucial to get on top of these "hidden risks". Accelerated adoption of 'clean' tech since COP21 means it is time to rethink our clean & smart future to ensure we do not build it on a foundation of environmental crime and illegal trade at the expense of China's water resources.

Can We Build A Clean & Smart Future on Toxic Rare Earths?
Almost all smart, green & clean tech need rare earths to work, but mining & processing these are highly polluting. Lead author Liu of CWR's new report: *"Rare Earths: Shades Of Grey"* explores this paradox. It is time to rethink our clean & smart future
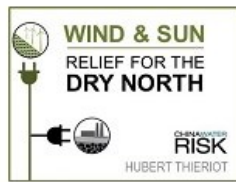Read this article →

Rare Earth Black Market: An Open Dirty Secret
The black market exacerbates environmental pollution from rare earth mining in China. With low prices, depleted reserves and contaminated drinking water, find out if your smartphone, tablet or electric car is party to these
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E-Waste: Downside to the Tech Revolution
China is one of the largest producers of e-waste globally. Faced with mountains of toxic e-waste, Green Initiatives launched the [WE] Project in Shanghai. Co-founder Dani on this easy, safe & scalable way to recycle phones, home appliances & more
Read this article →

BWS-China: WRI's New Water Stress Map
With more granular data from the Chinese government, WRI China upgraded its Aqueduct Baseline Water Stress (BWS) maps for China. BWS China developers Wang, Zhong & Long explain key differences
Read this article →

Wind & Sun: Relief For China's Dry North
China's North is parched but is home to a significant amount of coal reserves & arable land. Can wind & solar power help bring relief? CWR's Thieriot on how but be warned, challenges remain
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China's Water Resource Tax Reform
The recently launched water resource tax reform will ultimately supersede the existing resource fee system. CWR's Xu on how the two systems compare and why Hebei is taking lead as the pilot city
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TAPPING IN 🔧

Government

- State Council: Creating a Good Environment for Boosting the Structural Adjustment, Transformation Promotion & Efficiency Improvement of the Non-ferrous Metal Industry: control production capacity; promote recycling
- State Council: Regulations on Irrigation and Water Conservancy improve irrigation to ensure food security; enforced 1 July 2016
- NDRC: Interim Administrative Measures for Public Resources Trading Platforms: water rights & carbon trading; in force 1 Aug 2016
- NDRC, MIIT & NEA: Made in China 2025 - Implementing Plan for Energy Equipment: 15 target areas
- NDRC & MEP: National Catalogue of Hazardous Wastes: latest revisions in force 1 Aug 2016
- MEP: Law on Prevention & Control of Water Pollution: public consultation on latest revisions
- MEP: released two technical guidelines for identification & assessment of eco-environmental damage

CWR Report

- Rare Earths: Shades Of Grey - Can China continue to fuel our clean and smart future?

Reports

- CDP: Levelling the playing field - China Water Report 2016
- WRI: Baseline Water Stress: China
- UNEP, WRI et al. Food Loss and Waste Accounting and Reporting Standard
- UN PAGE: Transition to A Green Economy in China's Jiangsu Province: A Stocktaking Report

Interest

- 1st national Water Rights Trading Exchange launched on 28 June
- National Audit Office: >RMB17.6 bn for water pollution prevention & control not effectively used or allocated
- Prosecutors win landmark lawsuit against Shandong environment dept for inadequate punishment of a polluting firm
- 255 Shanghai industrial facilities to shut (Aug 24-Sep 6) for G20; Zhejiang & Jiangsu to follow suit
- NDRC: nationwide checks ordered on energy use to speed up closure of inefficient coal mines & steel plants
- MWR: to publish monthly city rankings of most & least polluted water
- CSRC: will ban IPOs by firms not compliant with environ protection rules
- Bank of China: issues USD3bn green bond
- Beijing: sinking by 11cm/year; subsidence caused by groundwater over-extraction
- Former deputy environ minister, Zhang Lijun, accused of taking RMB2.4mn in bribes

Hot on Weibo:

- More action on urban resilience as heavy rains & floods hit Southern China

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