



# 中外对话

## chinadialogue



## 2015 最佳环境报道奖

### China Environmental Press Awards

年度最佳环境记者奖 | 年度最佳青年记者奖 | 年度最佳公民记者奖  
最佳公众服务奖 | 最佳调查报道奖 | 最佳气候报道奖



总编 伊莎贝尔·希尔顿

英国人，国际新闻工作者，BBC资深主持人，《卫报》专栏作家，并曾为全球多家知名媒体撰稿。她是一位中国问题专家，同时担任英国皇家国际关系学会和英国皇家人文学会会员。2006年，她主持创立了“中外对话” (<http://www.chinadialogue.org.cn>) 双语环保网站。

Isabel Hilton, editor and founder of chinadialogue.net, is a London-based international journalist, a former BBC senior broadcaster and a columnist for *The Guardian*.

She is an expert in Chinese affairs, a member of the Royal Institute of International Affairs and a Fellow of the Royal Society of Arts. In 2006, she set up the bilingual website (<http://www.chinadialogue.org.cn>) focusing on China's environmental issues.

## 关于“中外对话”

“中外对话”是一个独立的非营利性组织，以伦敦、北京、德里和圣保罗为中心开展工作。

“中外对话”的主要业务是其独特的完全双语网站，它通过发表精辟、原创的中外文章、评论和分析，促进世界理解中国崛起带来的全球性生态环境影响，进而共同寻求公平可行的全球环境问题解决之道。

“中外对话”在很多机构的资助下运作，其中包括英国环境、食品和农业事物部、壳牌(中国)以及许多基金会。

## 关于“中外对话”内部交流刊物及网站

《中外对话》内部交流刊物是“中外对话”网站文章的精华。我们从网站上精心挑选了趣味盎然而极富挑战性的深度报道以及展现科技进步的新闻信息，方便与您的交流。欲阅读更多精彩的文章，请您登陆“中外对话”网站 (<http://www.chinadialogue.org.cn>)。

“中外对话”网站以中国前沿环境记者撰写的文章、对国际知名人士的访谈以及对全球重大问题的深入报道为主要内容，通过网站，您可参阅每日全球环境新闻、赏析高质量的文章和参与“零语言障碍”的讨论(双语发布)。

另外，通过全球双语志愿者的帮助，您还可以在线与英文读者顺畅进行跨文化交流。在那里，您可以提出疑问、挑战专家观点、贡献您的知识和了解他人独到的见解。

加入讨论您就走出了解决问题的第一步。

## What is chinadialogue

*chinadialogue* is an independent, not-for-profit organisation based in London, Beijing, Delhi and Sao Paulo.

*chinadialogue's* primary vehicle is our website (<http://www.chinadialogue.org.cn>), a unique bilingual platform which promotes a global understanding of the environmental impact of China's rise by publishing informed articles, commentaries and analysis by writers from inside and outside of China. We aim to inform, educate, and contribute to building a global consensus on fair and workable solutions.

*chinadialogue* is now read in 208 countries and regions and in all regions of China.

## About our journal

Produced on a bi-monthly basis, our journal brings you the best articles and reports from *chinadialogue*. If you want to contribute to the discussion you can visit our website (<http://www.chinadialogue.org.cn>) to add your comments and thoughts. Join the debate and be part of the solution.

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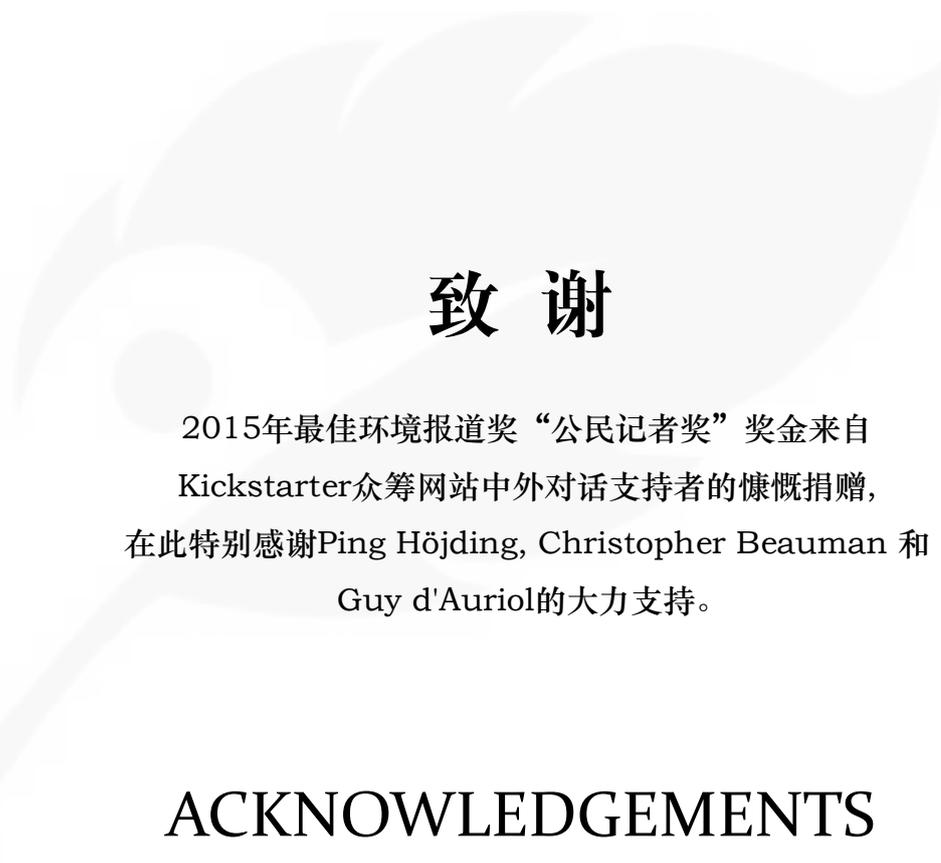
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# 致 谢

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## 中外对话 “最佳环境报道奖”

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“最佳环境报道奖”评选由中外对话和英国卫报 *The Guardian* 联合发起，旨在提倡客观、公正、深入的环境报道，提高环境报道水平，奖励优秀环境记者，促进中国环保事业。此前五届活动，共有 75 位记者或团队获奖。

颁奖仪式将会在北京举行，同时还会举办包括研讨会及讲座在内的系列相关活动，国内的多家知名环保组织和新闻媒体均会出席颁奖仪式。奖项得到了英国《卫报》、美国《大西洋月刊》、德国《时代周报》以及中国新浪网等诸多国际国内媒体的关注和报道。

2015 年第六届“最佳环境报道奖”中外对话将与中国人民大学环境学院、网易新媒体中心合作筹办。今年的六名大奖获得者将应德国外交部邀请，赴德国进行为期一周的访问。2015 年第六届“最佳环境报道奖”中外对话将与中国人民大学环境学院、网易新媒体中心合作筹办。今年的六名大奖获得者将应德国外交部邀请，赴德国进行为期一周的访问。

The China Environmental Press Awards were created by *chinadialogue* and *The Guardian* in 2010 to give recognition to environmental journalists who make outstanding contributions to the field in China. The awards exist to promote fair and objective reporting and to raise the standard of environmental journalism. Since the China Environmental Press Awards were launched, we have awarded over 75 environmental reporters/teams.

The prizes are presented at an annual awards ceremony in Beijing, accompanied by side events including journalist workshops and lectures, and attended by high-profile members of China's environmental and media spheres. The awards have also been covered by international and internal press including *The Guardian*, *The Atlantic*, *Die Zeit* and *Sina*.

The 6th China Environmental Press Awards will be held jointly by *chinadialogue*, Renmin University's School of Environment and Natural Resources, as well as NetEase New Media Centre. This year, 6 prize-winners will be invited by the German Foreign Ministry for a one week tour in Germany.

# 2015 最佳环境报道奖

The China Environmental Press Awards

发起: 中外对话、英国卫报  
主办: 中外对话  
合办: 中国人民大学环境学院  
网易新媒体中心

## 获奖名单

**年度最佳环境记者奖:** 陈杰,《新京报》

**年度最佳青年记者奖:** 孔令钰,《财新周刊》

**年度最佳公民记者奖:** 宁德守护者

**最佳公众服务奖:**《机动游船能否驶进泸沽湖系列报道》/ 钟美兰,《四川日报》

**最佳调查报道奖:**《为什么非得是彭州》/ 刘伊曼,《瞭望东方周刊》

**最佳气候报道奖:**《气候移民》/ 石毅 徐晓林等,《澎湃新闻》

**年度最佳公民记者二等奖:** 施怀基、“天地自然”团队

### 优秀报道奖:

- 《开坑验毒》/ 袁端端,《南方周末》
- 《污水交易》/ 高胜科,《财经》杂志
- 《什邡后遗症》/ 严定非,《南方周末》
- 《告别北京雾霾》/ 张杰,《海南日报》
- 《重柴超标排放缘何久治不愈》/ 倪元锦,新华社
- 《兰州自来水苯超标事件系列报道》/ 张鹏,《中国青年报》
- 《一个村庄的砷殇: 石门“亚洲最大雄黄矿”重金属污染调查》/ 黄芳,《澎湃新闻》
- 《对话国家环保局首任局长、山东人曲格平: “改革利益集团是治霾关键”》/ 张红光、郑雷,《齐鲁晚报》

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# 颁奖词

## AWARD CEREMONY NOTES

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年度最佳环境记者  
Journalist of the Year

陈杰  
Chen Jie



新京报  
Beijing Times

2014年5月，陈杰辞去新京报摄影部主编一职，重回一线做摄影记者。他这个不寻常的决定，对中国2014年的环境保护起了重要作用，对职业热情在衰退的中国记者们，是一个极大的鼓励。

2014年，陈杰做了7组环境类系列报道，其中《沙漠之殇》独家报道腾格里沙漠污染事件，得到了国家主席习近平三次批示，国务院成立专门调查组，内蒙古有数十位官员被免职或处分。这一事件被写入2015年3月全国政协工作报告。陈杰在2014年的工作，完美展现了记者工作的价值：你的收入虽然很少，但可以改变世界。

In 2014 Chen Jie quit as photography editor at the Beijing News and returned to frontline photojournalism. His unusual choice proved to be a boon for environmental protection that year, and an inspiration to colleagues feeling waning passion for their profession.

In 2014 he completed a series of seven pieces on the environment. One of these, Death of the Desert, an exclusive on Tengger Desert pollution, prompted Chinese president Xi Jinping to issue three separate memos, with the State Council forming an investigation team and dozens of officials in Inner Mongolia losing their jobs or being punished. The case was also mentioned in the March 2015 work report of the National People's Political Consultative Conference. Chen's work during 2014 showed the value of a journalist's work: you won't earn much, but you can change the world.

**年度最佳青年记者**  
Young Journalist of the Year

**孔令钰**  
Kong Lingyu



**财新周刊**  
Caixin Weekly



从新闻学院毕业的第二年，孔令钰在财新周刊发表了三篇封面环境报道，其中《排污阳谋》尤其突出。腾格里沙漠排污事件发生后，她与编辑深入调查，研究沙漠排污的原因。孔令钰花了两个月时间在三个省找了30多个晾晒池，揭露了“腾格里式排污”的深层逻辑——西部地区环境容量不足，“零排放”神话随之而生，晾晒池作为零排放工艺，为企业排污创造名目上的合法性。此文发表后，环保部查处、地方整改，最终晾晒池被叫停。孔令钰的《被忽视的雾霾元凶》首次揭示，要治理雾霾，除了加强工业源的控制，还要控制农业氨气排放量，该理论极具前瞻性。作为“90”后的年轻人，孔令钰当之无愧获得“年度青年记者”这一奖项。

In her second year since graduating from journalism school, three of Kong Lingyu's environmental reports appeared on the cover of Caixin Weekly, with Daylight Pollution enjoying particular prominence. After the exposure of pollution in the Tengger Desert, Kong and her editor took a closer look at its causes. She spent two months visiting over 30 evaporation pits across three provinces and exposing the underlying logic – environmental capacity in the west of China does not allow for pollution, the subsequent emergence of the 'zero pollution' myth, and the use of evaporation pits as a zero pollution technique to make company emissions appear legal. The article led to a Ministry of Environmental Protection investigation, reorganisations and reforms in local government, and ultimately the banning of the evaporation pits.

Kong's far-sighted piece, The Hidden Source of Smog, demonstrated for the first time that if smog is to be controlled, reducing industrial pollution will not be enough – agricultural emissions of ammonia will also have to be cut. And so, as a child of the 90s, Kong Lingyu is wholly worthy of the Young Journalist of the Year award.



**最佳公众服务奖**  
Public Service Award

**钟美兰**  
Zhong Meilan



**《机动游船能否驶进泸沽湖》系列报道**  
Tourist Motorboats on  
Lugu Lake series



**四川日报**  
Sichuan Daily

四川盐源县将在泸沽湖景区投放机动游船，引起当地民众质疑。《四川日报》记者钟美兰赴当地采访探寻：当地政府为何要投入新式机动游船？对泸沽湖环境有无污染？当地百姓能否接受？是否会破坏摩梭文化？

作为当地最权威的官方媒体，《四川日报》连续跟进，扎实调查，新媒体和传统媒体同步推进，营造了一波又一波的舆论声势，盐源县不得不搁浅推行游船的计划。

因为出色的报道，泸沽湖的环境和当地弱势民众的权益得到保护。记者钟美兰及其所在媒体《四川日报》因此获得年度的“最佳公众服务奖”。

The government of Yanyuan county in Sichuan planned to introduce motorboats on Lugu lake to help tourism – but the locals aren't convinced. Sichuan Daily reporter Zhong Meilan visited to find out why the government wanted the new boats, whether they would cause pollution, what the locals thought, and if the boats would damage the local Mosuo culture.

The Sichuan Daily is the most authoritative of the province's official news outlets, and its sustained coverage and investigations, along with simultaneous publication across both new and traditional media, created wave after wave of public comment. The Yanyuan government was forced to shelve its plans.

Thanks to outstanding journalism, the environment of Lugu Lake and the rights of vulnerable locals were protected. For this reason, Zhong Meilan and the Sichuan Daily win the Public Service Award.

**最佳调查报道奖**  
Best Investigation

**刘伊曼**  
Liu Yiman



**《为什么非得是彭州》**  
Why Pengzhou?



**瞭望东方周刊**  
Oriental Outlook



在四川彭州，为何要建一个饱受争议的大型石油化工基地？刘伊曼持续关注，长达5年，采访上百人，通过翔实的证据，揭露地方政府和中石油不顾客观条件，不顾民众的环境利益，将环评当成一场“硬仗”来打，最终造成“双输”局面，并以此个案，揭示出中国环评问题的根本症结所在。

因其巨大的影响力，这篇报道被不停删贴，但又被公众持续不断地推送，成为一个有趣的现象。但它所揭示的事实真相，却不容质疑。

Why does a hugely controversial petrochemical zone have to be built in Pengzhou, Sichuan? Liu Yiman spent five years following this case and carrying out over one hundred interviews. She found ample evidence that the local government and the China National Petroleum Corporation had ignored the actual circumstances and the environmental interests of the public and treated the environmental impact assessment process as a battle to be won – and ultimately got their ‘win-win’ outcome. She then used that case to reveal the root causes of problems in China’s environmental impact assessment procedures.

Its huge impact meant the article was repeatedly deleted when reposted online – but, amusingly enough, the public put it back up just as constantly. The facts it exposes remain true and must not be ignored.





**年度最佳公民记者**  
Best Citizen Journalist

**宁德守护团队**  
Ningde Guardians

福建，一度被认为公众环保热情不高、与环境破坏行为的博弈能力不强。这个团队的出现，打破了这一成见。如果说，2007年厦门公众与PX项目的对峙，还有诸多偶然因素在起作用的话，那么，几个手无寸铁的农民、教师、工人，面对上千亿元的项目，面对党委和政府的持续保护性支持发展，他们能做的，就是大量的揭露、起诉、参与听证会、邀请媒体采访等。在这一过程中，他们所承受的压力，没有参与其间的人，难以想象，也无法理解。而他们所表现出来的定力、韧性和智慧，每一天都让围观者惊叹。

The people of Fujian were once regarded as uninterested in protecting the environment and not up to the task of fighting environmental damage. This group have ended that prejudice. If we say that many other factors played a role in the 2007 opposition to the PX plant in Xiamen, then all that the powerless farmers, teachers and workers can do when faced with billion yuan projects and the Party and government officials who protect them is to expose what is going on, sue in court, participate in hearings and ask the media to report. The pressure they face during the process is hard to imagine for those who have not experienced it. But the focus, toughness and wisdom they show continually impress onlookers.

**优秀报道奖**  
Awards for excellence



**《兰州自来水苯超标事件系列报道》**

张鹏 《中国青年报》

**Benzene pollution in Lanzhou's water,**  
Zhang Peng, China Youth Daily

2014年，甘肃兰州发生自来水苯超标事件。在这一重大的突发事件后，中国青年报的张鹏和同事们步步紧跟，连续四天的报道，每一天都发出独立的声音、独家的内容和独到的思考。

In 2014 Lanzhou's water supply was contaminated with benzene. Over the next four days China Youth Daily reporter Zhang Peng and colleagues provided an independent point of view, exclusive content and original comment.



**《对话国家环保局首任局长、山东人曲格平：  
“改革利益集团是治霾关键”》**

张红光、郑雷 《齐鲁晚报》

**In conversation with the first head of the  
State Environmental Protection Agency,  
Shandonger Qu Geping: 'reforming vested  
interests is key to dealing with smog'**

Zhang Hongguang, Zheng Lei,  
Shandong Evening Times

这是一篇有广泛影响力的人物访谈。《齐鲁晚报》的张红光和郑雷采访了原国家环保局首任局长曲格平，一针见血地提出治理雾霾和环境保护的根本——依靠法律、改革利益集团才是关键。访谈稿，特别是官员的访谈稿获奖并不多见，此篇当属例外。

A widely influential interview. Zhang Hongguang and Zheng Lei of the Shandong Evening Times interviewed Qu Geping, the first ever head of China's State Environmental Protection Agency, and cut right to the chase of dealing with smog and protecting the environment – the key is reliance on the law and reforming vested interests. It is rare for interviews, particularly interviews with officials, to win awards. This deserves to be an exception.



《开坑验毒》

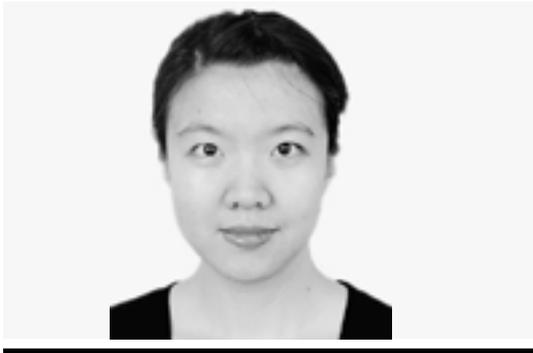
袁端端 《南方周末》

**Buried poison**

Yuan Duandan, Southern Weekend

一家上市公司将污染废料埋藏于厂房底下，尘封三年。如同举报者和环保部在这家企业开坑验毒一般，这篇报道也令这一匪夷所思的污染行为大白于天下。

A listed company buried polluted waste under its factory. Three years later this article, along with a whistle-blower and the environmental authorities, played its part in exposing this shocking behaviour.



《重柴超标排放缘何久治不愈》

倪元锦 新华社

**Why no progress in dealing  
with heavy-duty vehicle emissions?**

Ni Yuanjin, Xinhua

新华社记者倪元锦历时半月，夜访多处“进京口”、高速路、批发市场，发现每晚几万至十几万辆进京或过境车辆所排放的污染物比全市 540 万辆车同时产生的排放量还要多。此文先以内参“国内动态清样”形式报省部级以上领导阅，并获分管相关领域的副总理批示，后公开发表。此稿件，间接推动了“京津冀晋鲁蒙跨区域机动车排放污染监管执法平台”的提速搭建。

Xinhua reporter Ni Yuanjin spent two weeks making night-time visits to Beijing's 'entry points', expressways and wholesale markets. He found that every night tens or even hundreds of thousands of goods vehicles enter the city – emitting more pollutants than the 5.4 million vehicles actually registered in the city. This piece was first distributed to ministerial and provincial-level officials under China's neican system of internal news reports, resulting in the vice premier responsible for vehicle emissions ordering action, before being published openly. The article resulted in the creation of a cross-border system for monitoring and enforcing emission standards in Beijing, Tianjin, Hebei, Shanxi, Shandong and Inner Mongolia being sped up.



**《一个村庄的砷殇：石门“亚洲最大雄黄矿”  
重金属污染调查》**

黄芳 澎湃新闻

**One village' s death from arsenic:  
an investigation into heavy metal  
pollution at Shimen, Asia' s biggest  
arsenic sulphide mine**

Huang Fang, Thepaper.cn

湖南省雄黄矿先后有 400 多名矿区职工砷中毒死亡。记者黄芳先后两次，历时数月深入污染矿区，走访矿工、村民家庭，还原污染发生的真相，率先披露污染现状。报道刊发后，国务院副总理张高丽批示“研究解决”，重金属治理工程在推进中。

Over 400 mine employees in Hunan have died of arsenic poisoning. Journalist Huang Fang spent months in the mining area, interviewing miners and village families to establish the causes of the pollution, becoming the first to expose the problem. After the publication of the piece Vice Premier Zhang Gaoli ordered an 'investigation and solution', and a project to clean up the heavy metal pollution is now underway.



**《告别北京雾霾》**

张杰 《海南日报》

**Farewell to Beijing' s Smog**  
Zhang Jie, Hainan Daily

在北京雾霾污染的影响下，一些人离开北京，逃离雾霾。《海南日报》摄影记者张杰拍摄了笑笑一家人逃离北京、到海南开始新生活的故事，既反映了大时代的社会变迁，又极具有人情味。

The smog in Beijing prompted some to leave the city. Hainan Daily photojournalist Zhang Jie followed a young boy named Xiaoxiao and his family as they head for a new life in Hainan. The piece reflects the social changes of our times while retains great human interest.



### 《什邡后遗症》

严定非 《南方周末》

### Shifang Syndrome

Yan Dingfei, Southern Weekend

2012年四川什邡针对宏达集团钼铜项目发动的集体抗议，是近年最引人注目的环境群体性事件之一。记者严定非采访到当地市委书记，剖析了一次群体性事件对当地的影响。这在过去10年持续不断的“邻避运动”中，是非常罕见的一篇报道。

In 2012 the Sichuan city of Shifang saw mass protests against the Hongda Group's copper-molybdenum project – one of the most prominent environmental protests in recent years. Yan Dingfei interviewed the city's Party secretary and analysed the subsequent impact those protests have had on the city – something rarely done during the last ten years of ongoing 'Nimby' protests.



### 《污水交易》

高胜科, 《财经》杂志

### The waste water trade

Gao Shengke, Caijing magazine

资深调查记者高胜科揭秘：威立雅多年从事危险且违规的“水务生意”，处理跨行政区的企业污水。记者耗时近半年进行调查、核实，独家揭秘了该“生意”的全链条细节。

Veteran reporter Gao Shengke revealed that Veolia has for years been engaged in the dangerous and illegal business of transporting industrial waste water across administrative boundaries. After half a year of investigation and verification, Gao's exclusive shone a light on the entire process.

## 年度最佳公民记者二等奖 Citizen Reporter, 2<sup>nd</sup> Prize

### 施怀基



施怀基在云南大理当地，小有名气。他把他的名气用到了正当的地方。这几年来，每每有破坏性的发展项目出现，他都会挺身而出，用他不凡的手笔，写出翔实而动人的调研实录，推进了一个又一个具体的案例的改善，充分体现了一个公众的环保能量。无论是干预沙溪硫酸厂非法建设，还是揭露华能破坏马耳山的杜鹃花，都可看出他强大的行动力。

Shi Huaiji is a minor celebrity in Dali, Yunnan – and he uses that fame for good. For years he has employed his literary talent to protest environmentally damaging projects, again and again bringing about improvements and showing that a single member of the public has the potential to help protect the environment. Whether he is interfering in the illegal construction of a sulphuric acid factory in Shaxi, or exposing the damage caused to the azaleas of Horse-Ear Mountain by power company Huaneng, his strength is clear.

### 天地自然团队



这其实是一个微博矩阵的组合。当很多人都以为微博在丧失其公器之威力的时候，这个团队却准确地看到了微博的妙处和活力。当浮云散去，各种政务微博开始疯狂地与公众互动的时候，这些致力于揭露中国野生动植物保护现状的微博群团，在一年内显示出了惊人的传播和感染功效，他们揭示了很多国人所不知的真相，催促更多的人奋起保卫生态家园；他们推进了好多互联网企业，百度，淘宝，腾讯，京东，修正其经营行为，争取与生态共赢。

This is actually a network of microblogs. Just as many people feel microblogs are losing their force as a public tool, this group saw their value and vigour. As the clouds clear, and official government microblogs start frantic interaction with the public, this group dedicated to exposing the state of conservation of flora and fauna in China has had incredible success at getting its message out. They have shown many people the truth and prompted them to fight to protect the environment of their homeland; and have also pushed many Internet companies, including Baidu, Taobao, Tencent and JD.com to change the way they operated and seek to coexist with the environment.

# 为什么这是环境记者的黄金时代

环境严重恶化之时，中国环境记者可以大显身手。但只有当国家下定决心治理污染时，环境报道的黄金时代才算到来。

刘鉴强



2015年最佳环境报道奖获奖者及评委合影

过去几年，中国传统媒体的影响力一直下滑，记者的职业热情在消退。但中国环境记者的表现逆流而上，日益突出，这从7月14日刚刚颁发的第六届“最佳环境报道奖”的获奖记者和作品可以看出。

最佳环境报道奖由“中外对话”和卫报于2010年联合发起，旨在鼓励中国环境记者，促进中国环境报道和环境保护事业的发展。该奖每年一届，至今6届共奖励环境记者和单位93名。

获得此次年度最佳记者的是《新京报》摄影记者陈杰。他去年辞去摄影部主编，重回一线做摄影记者。2014年，陈杰做了7组环境类系列报道，其中《沙漠之殇》报道腾格里沙漠污染事件，得到了国家主席习近平三次批示，国务院成立专门调查组，内蒙古有数十位官员被免职或处分。陈杰在2014年的工作，完美展现了中国记者的价值：你的收入很少，但可以改变世界。

评委会授予陈杰最佳年度记者，

但作为评委之一，我必须承认，陈杰的作品之所以能“改变世界”，除了他的优秀表现，还有一个重要的原因：他恰逢这个时代。如果不是中国新的领导人更加重视环境问题，如果不是国家主席就一个污染问题做三次批示，如果这部作品放到5年以前，可能像数不清的环境报道一样，污染虽然被揭露，却不了了之。

国家强力查处腾格里沙漠污染，也令一位年轻记者脱颖而出。刚大学毕业的第二年，孔令钰就在《财新周刊》发表了3篇封面环境报道，其中《排污阴谋》尤其突出。腾格里沙漠排污事件发生后，编辑与她深入一步，研究沙漠排污的原因。孔令钰花了两个月在3个省找了30多个晾晒池，揭示了“腾格里式排污”的深层逻辑——西部地区环境容量不足，“零排放”神话随之而生，晾晒池作为零排放工艺，为企业排污创造名目上的合法性。此文发表后，环保部查处，地方整改，最终晾晒池被叫停。

孔令钰因此被评为“年度青年记者”，这个奖项专门奖励入职不足3年的“资浅”新闻工作者。这个奖

项是根据评委、香港大学陈婉莹教授的提议而设立的，在此之前的两年，这个奖项分别被财新的刘虹桥和《南方周末》的汪韬获得。

在习近平和李克强成为国家主席和总理之后，中国开始强力治理环境污染，在空气污染和水污染治理方面，出台了更加积极的政策。中国今年年初颁布了被称为史上最严格的修订版《环境保护法》，给予环保部门更大权力。在减排和应对气候变化方面，中国也比之前更为积极。中国各地有成千上万的污染工厂被关闭，甚至因此而影响了当地的经济发展，数以万计的人丢掉工作。

因为整个国家开始史无前例地重视环境问题，令许多优秀报道不但“开花”，而且“结果”，推动了问题的解决，比如《四川日报》钟美兰的泸沽湖系列报道。四川盐源县将在泸沽湖景区将投放机动游船，引起当地民众质疑。钟美兰赴当地采访探寻：当地政府为何要投入新式机动游船？对泸沽湖环境有无污染？当地百姓能否接受？是否会破坏摩梭文化？

《四川日报》连续跟进，扎实调查，新媒体和传统媒体同步推出，营

造了一波波的舆论声势，盐源县不得不搁浅推行游船的计划，泸沽湖的环境和当地弱势民众的权益得到保护。记者钟美兰及其所在媒体《四川日报》因此获得年度“最佳公众服务奖”。

新华社记者倪元锦获得此次“优秀奖”，他曾历时半月，夜访多处进京口、高速路、批发市场，发现每晚几万至十几万辆进京、过境车辆，排放的污染物比全市 540 万辆车同时排放的还要多。他的报道《重柴超标排放缘何久治不愈》获分管副总理批示。

与往年相比，此次获奖的新闻单位更具多样性，既有来自老牌的专业媒体，如《财新》、《南方周末》、《财经》，又有正统的官方媒体，如新华社、《中国青年报》，也有新创媒体如“澎湃新闻”。可喜的是，此次地方媒体的获奖者大幅增加，如《四川日报》、《海南日报》、《齐鲁晚报》，说明环境报道在各地媒体得到加强。

而在报道形式上，此次获奖作品也多姿多彩，有长篇调查报告，有突发性报道，有摄影报道，有人物访谈，最令人高兴的是，澎湃新闻的《气候移民》利用多媒体报道气候变

化，令人印象深刻。气候变化作为“高冷”领域，一直很难与公众的生活贴近。但这组报道，以画面、视频、声音、文字和数字，全面报道宁夏西海固地区因气候变化而导致的移民问题，不但令受众读到，也看到、听到、感觉到气候变化，在这组报道面前，气候变化不再只是理论，而是有人物、有命运、有画面、有声音、有味道、有温度、有切肤之痛的活生生的问题，它正扑面而来。因此，今年新设的“最佳气候变化奖”授予澎湃新闻《气候移民》的石毅、徐晓林等作者团队。

在过去的 10 多年，我一直报道和观察中国的环境问题。10 余年中，中国环境持续恶化，环境记者一直努力，但直到最近的两三年，他们的报道才比以往得到更多的关注，报道的问题得到更多的解决。因为国家对黑色 GDP 的反思和绿色发展道路的确立，环境记者们才进入了黄金时代。而我也确信，环境记者们的工作，同时会帮助中国，更早地进入治理环境、绿色发展的黄金时代。

刘鉴强，中外对话北京办公室总编

# Why this is a golden age for environmental journalism

The setting of green development as a national priority has created space for environmental journalists to thrive

Liu Jianqiang

We live in a time of environmental degradation – and a time in which China’s environmental journalists can show off their talents. But now the state has decided to tackle pollution, and we have entered a golden age for environmental journalism.

The influence of China’s traditional media has waned in recent years, with journalists losing passion for their profession. But China’s environmental writers have bucked this trend and achieved increasing prominence – as we see in the winning journalists and stories at the 6th China Environmental Press Awards held on July 14.

These annual awards were launched by chinadialogue and The Guardian in 2010, with the aim to encourage environmental journalism and promote protection of natural resources. With this year’s ceremony, the sixth so far, a total of 93 journalists and outlets have been recognised.

Best journalist award went to Chen Jie, a photojournalist with the Beijing News.

Last year he resigned as the paper’s photo editor to return to frontline photojournalism. In 2014 he completed a series of seven pieces on the environment. One of these, ‘Death of the Desert’, an exclusive on Tengger desert pollution, prompted Chinese president Xi Jinping to issue three separate memos, with the State Council forming an investigation team resulting in dozens of officials in Inner Mongolia losing their jobs or being punished.

The case was also mentioned in the March 2015 work report of the National People’s Political Consultative Conference. Chen’s work in 2014 showed the value of a

journalist’s work: you won’t earn much, but you can change the world.

The judges named Chen journalist of the year – and as one of those judges I have to admit it’s not just his excellent reporting that means he can change the world. Another important factor is that he happens to be reporting at the right time. If China’s new leadership wasn’t now taking environmental issues more seriously, if the president hadn’t written those three memos, if Chen’s piece had been written five years earlier – then, as is so often the case when pollution is exposed, maybe nothing would have changed.

But the state brought its full power to bear on those polluting the Tengger desert, and in doing so highlighted the work of one other young journalist.

In her second year since graduating from journalism school, three of Kong Lingyu’s environmental reports appeared on the cover of *Caixin Weekly*, with her ‘Pollution in Plain Sight’ article enjoying particular prominence.

After the exposure of pollution in the Tengger desert, Kong and her editor took a closer look at its causes. She spent two months visiting over 30 evaporation pits across three provinces and exposing the underlying logic – that ‘environmental capacity’ in the west of China negates pollution, the subsequent emergence of the ‘zero pollution’ myth, and the use of evaporation pits as a ‘zero-pollution’ technique to make company emissions appear legal.

The article led to a Ministry of Environmental Protection investigation, reorganisations and reforms in local government, and, ultimately, banning of evaporation pits.

Kong Lingyu was awarded the Young Journalist prize, which rewards those with less than three years of experience in the field. This prize was established on the suggestion of Yuen-ying Chan, a member of the judging panel and a professor at Hong Kong University. Previous prize-winners have been *Caixin's* Liu Hongqiao and Wang Tao of *Southern Weekly*.

The appointment of Xi Jinping and Li Keqiang as president and premier respectively has led to China intensifying efforts to clean up pollution, with more active policies now in place on air and water pollution.

At the start of the year a new and tougher-than-ever revision of the Environmental Protection Law came into force, with environmental authorities handed stronger powers. There has also been more progress on emissions and dealing with climate change. Thousands of polluting factories around the country have been shut down – despite the impact on economic growth and the tens of thousands of job losses.

With environmental issues taken more seriously than ever before, much quality environmental reporting started not just to bloom but also bear fruit, by bringing about solutions.

Zhong Meilan's pieces on Lugu Lake for the *Sichuan Daily* are one example: the government of Yanyuan county in Sichuan planned to introduce motorboats on Lugu lake to help tourism – but locals weren't convinced. Zhong Meilan visited to find out why the government wanted the new boats, whether they would cause pollution, what the locals thought, and if the boats would damage the local Mosuo culture.

Sustained coverage and investigations, along with simultaneous publication across both new and traditional media, created wave after wave of public comment. The Yanyuan government was forced to shelve its plans and the environment of Lugu lake and the rights of vulnerable locals were protected. For this reason, Zhong Meilan and the *Sichuan Daily* win the Public Service Award.

*Xinhua* reporter Ni Yuanjin, winner of an award for excellence, spent two weeks making nighttime visits to Beijing's 'entry points', expressways and wholesale markets. He found that every night tens or even hundreds of thousands of goods vehicles enter the city – emitting more pollutants than the 5.4 million vehicles actually registered

in the city. His piece promoted the vice premier responsible for vehicle emissions to order action

This year saw prizes go to a more diverse range of outlets – from established media such as *Caixin*, the *Southern Weekly* and *Caijing*, to the traditional official outlets such as *Xinhua* and the *China Youth Daily*, and then on to new outlets such as *Thepaper.cn*. Happily, the number of local outlets – *Sichuan Daily*, *Hainan Daily*, the *Shandong Evening Times* – receiving prizes has jumped, reflecting a better standard of environmental reporting by local news outlets.

Similarly, awards were given to a variety of types of pieces – long investigative pieces, breaking news reports, photojournalism, interviews, and, most encouraging of all, the multimedia climate change report from *Thepaper.cn*, 'Climate Migrants'. Climate change is often perceived as a 'lofty' subject, not one easily connected to the everyday lives of the people. But this set of reports covered migration issues arising from climate change in Ningxia province, using pictures, video, audio, text and statistics.

The audience did not just read about climate change – they saw it, they heard it, and they felt it. Climate change stopped being a theoretical issue and became vivid: a story of people and their pain and their fate, told with images, with sounds, with flavour and warmth. So this new award, for the best climate report, goes to Shi Yi, Xu Xiaolin and their colleagues at *Thepaper.cn*, for her piece.

For over a decade I have been observing and reporting on China's environment. I have seen how, over that period, our environment has continued to worsen and our environmental journalists have continued to do their best. But only in the last two or three years has their work been paid more attention, only now are the problems they report on more likely to be resolved.

As the state has reconsidered its stance that highly-polluting GDP growth and breakneck urbanisation should be the preferred path, we enter a golden age of environmental journalism.

And I am sure that their work will help China enter a new epoch of a cleaner environment and greener development. ☺

*Liu Jianqiang is Beijing editor of chinadialogue.*

# 陈杰：不当领导当记者

陈杰荣获2015年中国环境报道奖年度最佳记者，  
中外对话为您讲述他作为一名记者的心路历程。

张春



© 陈杰

像陈杰这样，高强度地在采访一线工作的“高龄”记者，在中国并不多见

在做了8年的《新京报》摄影部主编后，2014年，陈杰辞去主编职务，重新背起照相机，走出办公室，做他最喜欢的摄影记者。

8月末的一天，他来到内蒙古腾格里沙漠边缘的额里斯镇，这里有一股浓烈的刺鼻气味。在沙漠腹地，大量化工企业正在将未经处理的污水源源不断地排入沙漠。

傍晚时分，陈杰打扮得像当地农民，将照相机装进一个黄布包，走进沙漠，寻着越来越刺鼻的味道，行进了一个小时，翻过数个沙丘后，突然，几乎令人窒息的刺鼻气味扑面而来。在他面前，几个足球场大小的长方形排污池并排居于沙漠之中，其中两个排污池注满墨汁一样的液体，另两个排污池是黑色、黄色、

暗红色的泥浆，里面稀释有细沙和石灰，一辆推土机停在池边。排污池上空飘浮着白色的烟雾。

他拍下这些令人震惊的画面。9月6日，他的这组图片报道《沙漠之殇》刊登于《新京报》，立即引发强烈的反响。国家主席习近平三次批示，要查处这一严重污染问题。国务院成立专门调查组，内蒙古有数

十位官员被免职和处分。

2014年，他行走了7、8万公里路程，完成了7个环境报道。他因这些影响重大的报道，获得中外对话“最佳环境报道”的年度最佳记者奖。

陈杰当过5年兵，退伍后做摄影记者。30岁入职《新京报》，后来又当上摄影部主编。他喜欢高强度的锻炼，2009年，他韧带断裂，主治医师告诉他，手术有风险，保守治疗以后，不要多运动了。他不干，最后找了一个技术过硬的医生，做了手术，并通过艰难的康复训练，恢复到了当兵时的体能。现在过了40岁，每天跑10公里。

他不能忍受的，是安逸的枷锁和敷衍的状态。拥有足够的时间和空间，按照个人的意愿去做扎扎实实的报道，就是他理想的工作状态。

他辞去主编，重新做一位摄影记者，在中国媒体人中是罕见的。有

人认为这是因为他军人的出身和热爱自由的天性。但在陈杰看来，这是一种回归，而主编工作更像是为这一回归所做的准备。

统筹策划的主编工作开阔了他的视野，他觉得自己曾经做过的“曝光型”报道，现在看来都太过浅显，他要是再做一次摄影记者，他会探索那些在画面背后的事实。终于，他决定不再呆在和真相相距太远的办公室，迫不及待拿起相机，回到了前线，要做那些摄影记者还没有做的事情，譬如，去调查污染事件中企业有没有履行其义务，环保部门有没有尽到监管职能。他不仅想揭露，他还希望能寻找解决方案。

他说：“所有的环境问题最终要回归到人。”他希望自己的报道能表现人的命运，体现出环境报道的真正价值。

像陈杰这样，高强度地在采访

一线工作的“高龄”记者，在中国并不多见。优秀记者往往会升任副主编、主编。他说，这次转型，也希望在业界做出不一样的表率，“优秀记者突然‘消失’去做编辑，对媒体行业是一种损失。”

他认为，记者应该有很长的时间来成长。一个人做了10年的环境记者，也不敢说自己是环境方面的专家，因为有太多的东西需要学习。他现在感受到专业知识的缺乏，如果有更多的专业知识，做的报道会更有力量。

陈杰说，他会对环境问题进行持续的关注，中国的环境问题，至少在30年中，还会非常艰难。“环境报道的黄金期，还有至少30年。”他说。

张春，中外对话北京办公室编辑



# Awards winner: I'd rather be a journo in the field

chinadialogue interviews photojournalist Chen Jie, winner of Journalist of the Year at the 2015 China Environmental Press Awards

Zhang Chun

In 2014, after eight years in the job, Chen Jie quit as photo editor at the Beijing News, picked up his camera, and headed out to do the job he loved: photojournalist.

On the final day of August last year he arrived at the town of Elisi, on the edge of Inner Mongolia's Tengger desert. An acrid odour filled the air. In the dunes out on the horizon, chemical manufacturers were dumping untreated waste water onto the sands, and into lakes that had been important sources of fresh water.

After nightfall, Chen dressed up as a local farmer, wrapped his camera in a cloth bag, and headed out into the desert in search of the source of the overpowering smells. One hour and several sand dunes later the view opened out, and the stench became almost suffocating. In front of him, several rectangular pits, each the size of several football fields, lay side-by-side in the desert.

Ink-black water was being pumped into two pits, while two others were filled with black, yellow and dark-red muds thinned with sand and lime. A bulldozer sat next to the trenches, and white smoke hung in the air above.

On September 6, his photographs of that awful scene appeared in the Beijing News under the headline 'Death

of the Desert'. There was a huge response: President Xi Jinping wrote three separate memos ordering an investigation, the State Council formed an investigation team, and dozens of officials in Inner Mongolia lost their jobs or were punished.

Chen travelled 70,000 to 80,000 kilometres in 2014, producing seven reports on the environment. These hugely influential pieces earned him chinadialogue's Journalist of the Year award.

Chen spent five years in the army before leaving to become a photojournalist. At the age of 30, he joined the Beijing News, where he later became photo editor. He remains keen on intense exercise. This is despite tearing a ligament in 2009, when doctors told him that surgery would be risky and that Chen would likely have to give up many of his preferred sports.

But Chen opted to find a doctor skilled enough to carry out the surgery, and, after a punishing regime of physiotherapy, became as fit as his army days. Now, in his forties, he runs 10 kilometres a day.

Chen can't stand to be cooped up or just getting by, as his ideal job is one where he is given the time and space to

Chen can't stand to be cooped up or just getting by, as his ideal job is one where he is given the time and space to do real journalism on the topics that interest him.

do real journalism on the topics that interest him.

So he quit as photo editor and returned to photojournalism – an unusual move in the Chinese media world. Some put this down to his military background and a natural love of freedom. But for Chen, it was more of a return home, and something his time as photo editor left him well-prepared.

The planning and commissioning he did as an editor expanded his horizons – the “scoops” he’d got in the past now seemed trivial. If he could do it again, he’d delve into the stories behind the images. In the end he decided to quit the office and return to the real world – he grabbed his camera and headed back to the frontlines to ask the questions other photojournalists didn’t. What responsibilities did polluting companies have, and were they fulfilling them? Were environmental authorities doing their jobs? He didn’t want to simply expose the problem – he wanted to find a solution.

“All environmental issues ultimately affect people,” he says, adding that he hopes his reports will show the fate of those people and the real worth of environmental reporting.

In China it is rare for a journalist with Chen’s experience to still be working intensively on the frontlines, and the best journalists end up in editing posts. He says he’d like to set an example: “Good journalists ‘disappear’ and become editors. That’s a loss to the industry.”

Chen says it takes a long time for a journalist to mature – ten years of reporting about pollution and its impact does not make you an environmental expert, as there’s just too much to learn. The photojournalist says he is aware that he lacks the professional knowledge that environmental experts have. If he had it, his reports would be even more powerful, Chen says.

Chen says he’s going to keep reporting on the environment: China’s pollution-related problems will last at least another 30 years, and that means “the golden age of environmental reporting will last at least that long,” he adds. ☺

*Zhang Chun is an editor in chinadialogue’s Beijing office.*



# 沙漠之殇

前《新京报》摄影记者陈杰以图片专题报道了腾格里沙漠污染事件，国务院随后成立专案小组调查，内蒙古数十官员遭处分。

陈杰

编者按：本文的作者陈杰获得中外对话“中国最佳环境报道奖”的“年度记者”大奖。

在2014年，陈杰辞去《新京报》摄影部主编，重回一线做摄影记者。在不到半年的时间里，陈杰做了7组环境类系列报道，其中这篇《沙漠之殇》独家报道腾格里沙漠污染事件，得到了国家主席习近平三次批示，国务院成立专门调查组，内蒙古有数十位官员被免职或处分。

2014年8月31日，记者在阿拉善左旗额里斯镇的腾格里沙漠行进了大约一小时后，看到了包围在沙漠深处的污水池，浓烈得几乎令人窒息的刺鼻气味扑面而来。

数个足球场大小的长方形的排污池并排居于沙漠之中，周边用水泥砌成，围有一人高绿色网状铁丝栏。其中两个排污池注满墨汁一样的液体，另两个排污池是黑色、黄色、暗红色的泥浆，里面稀释有细沙和石灰。

腾格里沙漠深处，一处产硝盐的沙漠里的绿洲，因化工污染，硝盐也遭到污染，被废弃。

在一些洼地，可以看到一根根直接插入沙里的黑色橡胶管道，这些管道周边的细沙呈黑色。踢开表面，下面是散发着臭味的黑色凝结物。

未经处理的废水排入后，经过自然蒸发沉淀下来的黏稠物，这些物质被用铲车铲出，直接埋在沙漠里面。

巴特尔的家在腾格里沙漠水源地上游，几年前几米下就能抽上水，现在水位下降至少40多米。

腾格里沙漠深处有一小湖泊，被开发成旅游景点。不过，由于地下水开采加剧，这个湖泊越来越萎缩。

内蒙古阿拉善左旗与宁夏中卫市接壤处的腾格里沙漠腹地，分布着诸多第三纪残留湖，这里地下水资源丰富，地表有诸多国家级重点保护植物，是当地牧民的主要集居地。与黄河的直线距离也仅有8公里。

“腾格里”在蒙古语里的意思是“天”，用以描述沙漠“像天一样浩渺无际”。然而近日，就在这片浩渺

无际的沙漠深处，记者却看到了一片“天”一样大的污水处理坑。

## 夜探沙漠深处排污池

2014年8月31日，内蒙古自治区，腾格里沙漠边的阿拉善左旗额里斯镇，蓝天白云令人赏心悦目。但这里的美景却被一股浓烈的刺鼻气味笼罩着。记者随机走进一个路边商店，询问店主这是哪里来的味道，店主指了指远处金属罐林立的化工园区说：“从那些工厂来的，他们把没有处理的污水直接排到沙漠里”。

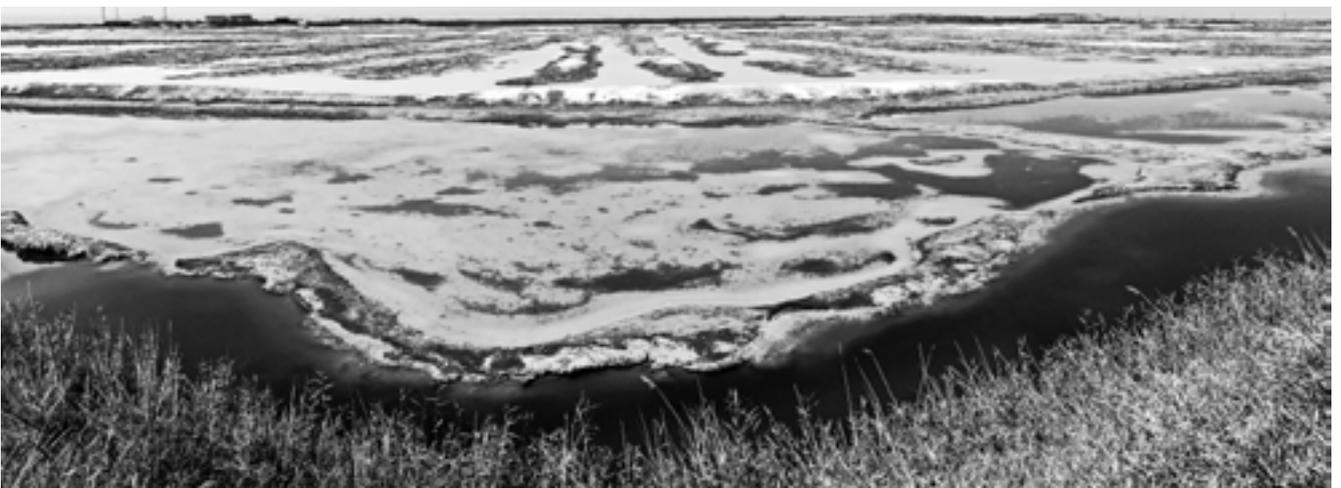
近年来，内蒙古和宁夏分别在腾格里沙漠腹地建起了内蒙古腾格里工业园和宁夏中卫工业园区，引入了大量的化工企业。当地居民说，这些企业正在将未经处理的污水源



记者在阿拉善左旗额里斯镇的腾格里沙漠进行了大约一小时后，看到了包围在沙漠深处的污水池，浓烈得几乎令人窒息的刺鼻气味扑面而来



数个足球场大小的长方形排污池并排居于沙漠之中，周边用水泥砌成，围有一人高绿色网状铁丝栏。其中两个排污池注满墨汁一样的液体，另两个排污池是黑色、黄色、暗红色的泥浆，里面稀释有细沙和石灰



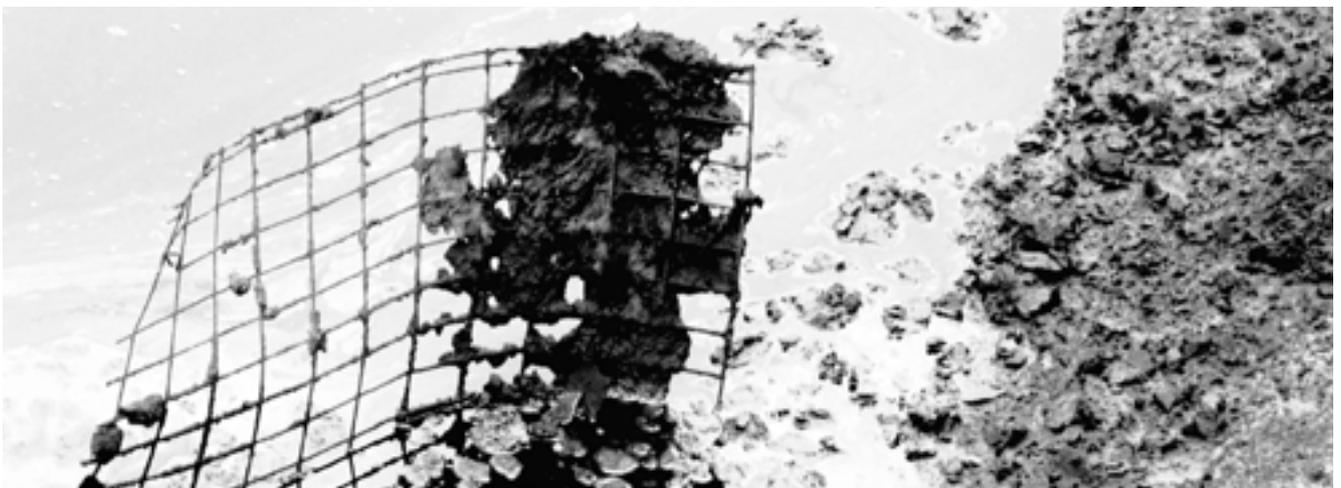
腾格里沙漠深处，一处产硝盐的沙漠里的绿洲，因化工污染，硝盐也遭到污染，被废弃



阿拉善左旗腾格里工业园区，腾格里沙漠深处，数个足球场大小晾晒池，池内是黑色、黄色、暗红色的泥浆，里面稀释有细纱和石灰



从工业园通往沙漠深处的排污池的白色“玻璃钢夹砂”管道绵延3.2公里穿过沙漠，引入晾晒池，源源不断把未经处理的污水排放到晾晒池



晾晒池内污水，未经处理的废水排入后，经过自然蒸发，然后将沉淀下的粘稠的沉淀物，用铲车铲出，直接埋在沙漠里面

源不断地排入沙漠，同时也在开采着地下水用于生产。

一位知情人告诉记者，顺着公路从小镇向北5公里，再顺公路向东，垂直向沙漠深处大约3公里后，就能找到一个污水排放点。但为防范本地人和不明身份的外地人接近排污点，化工园区安排有多辆摩托车组成的巡逻队。好在采访当天恰逢周末，知情人说，傍晚下班，加上周末，也许不会有人看守。

当天18时许，记者徒步进入沙漠，寻着越来越刺鼻的味道，行进了大约一个小时，翻过数个沙丘后，突然，眼前一片开阔，同时，浓烈得几乎令人窒息的刺鼻气味也扑面而来。记者看到，数个足球场大小的长方形排污池并排居于沙漠之中，周边用水泥砌成，围有一人高绿色网状铁丝栏。其中两个排污池注满墨汁一样的液体，另两个排污池是黑色、黄色、暗红色的泥浆，里面稀释有细沙和石灰，一辆推土机停在池边。排污池上空飘浮着白色的烟雾。

当地牧民说，这些排污池实际上是蒸发池，未经处理的废水排入后，经过自然蒸发，然后将沉淀下来的黏稠的沉淀物，用铲车铲出，直接埋在沙漠里面。

记者看到，每个排污池都有一个到数个白色“玻璃钢夹砂”管道通向沙漠，方向指向工业园。在排污池和化工园区之间的一公里多都是

沙漠，记者从排污池向化工园区方向行走，不时可以看见暴露在外面的排污管道，在一些洼地，还可以看到一些直接向下插入沙土里的黑色橡胶管道，这些管道周边的细沙呈黑色。踢开表面，下面是黑色泥浆般的凝结物，发出一股恶臭味。

在额里斯镇，沿着迎彦线公路往东北方向大约10公里，是宁夏中卫市境内，公路两边是绵延起伏的沙漠，在离公路大约100米的地方，有一片足球场大小的洼地，里面是恶臭的污水，几台推土机在不断地将沙子推进填埋。一些修建公路边围挡的施工人员，个个都戴着口罩，他们说，附近有多处这样的排污点，每天臭气熏天，如果不戴口罩，没多久，不仅头疼，嗓子也受不了。

### 地下水危机

额里斯镇特莫乌拉嘎察(村民组)，是最接近化工园区的村民组，最近的居民离化工园区不过1公里。20岁的巴特尔(化名)就是这里的居民，记者看到他正在用太阳能发电机，从自家水井抽水注入储水皮囊中，准备浇灌几里外菜园里的青菜。巴特尔的家在腾格里沙漠水源地上游，几年前几米下就能抽上水，现在水位下降至少40多米。

巴特尔说：他将来打算离开，这里已经失去过去清洁的空气，因不

断扩大的化工园区疯狂地开采地下水用于生产，水井里的水逐年下降。巴特尔在呼和浩特读大学一年级，暑假期间回家帮助父母放牧羊和骆驼，兼顾其他生产。如今，他只想逃离家乡的污染，留在城市。

知情人告诉记者，在额里斯镇沙漠腹地，有大约40多口挖掘深度大约在180米的取水井，均是供应工业园区生产用水。记者在一处编号为31号的供水井看到，水井的盖子上写着“庆华精细化工工业园供水”，知情人指着远处一排排伸向沙漠腹地的电线杆说，每个线路的尽头，都是这样的水井，逐年增多，井也越挖越深。

“一旦地下水被污染，千百年来牧民们生存的栖息地不仅将失去，更重要的是，我国的第四大沙漠——腾格里沙漠独特的生态环境可能也将面临严重威胁。”著名植物学家和草原生态学家，内蒙古师范大学生态学教授刘书润说，沙漠地下水一旦被污染后，修复几乎是不可能的。

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陈杰，《新京报》摄影记者，获得中外对话2015年“中国最佳环境报道奖”的“年度最佳环境记者”大奖



# Death of the desert

Images accompanying this report on pollution in Inner Mongolia's Tengger desert prompted a top-level investigation and sacking of provincial officials

Chen Jie

**Editor's note: Chen Jie is winner of chinadialogue's 2015 China Environmental Press Awards 'Journalist of the Year' prize**

In 2014 Chen Jie quit as photography editor at the Beijing News and returned to frontline photojournalism. Less than six months later he had completed seven pieces on the environment. One of these, *Death of the desert*, an exclusive on Tengger desert pollution, prompted Chinese president Xi Jinping to issue three separate memos, with the State Council forming an investigation team and dozens of officials in Inner Mongolia losing their jobs or being punished.

It's the final day of August, and after walking for an hour into the Tengger desert from the Inner Mongolian town of Elisi, the waste water pits hidden among the dunes come into view – and the stench makes it difficult to breathe.

The rectangular pits, each the size of several football fields, lie side-by-side in the desert, walled with concrete and surrounded by green fencing as tall as a man. Ink-black water is being pumped into two pits, while two more are filled with black, yellow and dark red muds thinned with sand and lime.

An oasis deep in the desert, once a source of saltpetre (otherwise known as sodium nitrate or potassium nitrate that is used in fertiliser and the chemicals industry) has been abandoned due to industrial pollution.

Once untreated waste water evaporates, the resulting sludge is removed by diggers and dumped in the desert.

A small lake has been turned into a tourist attraction. But groundwater extraction means the lake is shrinking.

In the heart of the Tengger, on the border between Alxa Left Banner in Inner Mongolia and Zhongwei, Ningxia

province, lie the remnants of lakes that date back to the Tertiary geological period. Groundwater is plentiful here, many protected species of vegetation are found growing on the surface, and the local herders make their homes nearby. It is only eight kilometres from the Yellow River, one of China's largest.

"Tengger" is the Mongolian word for "sky" – a name chosen as the desert is seemingly as vast and endless as the heavens above. But hidden deep in this huge desert, I found sprawling pits used for treating polluted water.

## Nocturnal visit

On the late afternoon of August 31, the blue skies and white clouds above Elisi are a pleasure to the eye. But enjoyment of this view is spoiled by a foul odour. I walked into a shop to ask where it was coming from and the owner pointed to metal storage tanks at chemical plants off in the distance: "From the factories," he said. "They dump untreated waste water in the desert."

Both Inner Mongolia and Ningxia have built industrial zones deep in the Tengger, with numerous chemical firms setting up shop. Locals complain these companies are extracting groundwater to use during manufacturing, then dumping untreated waste water into the desert area.

I was told that if I drove eight kilometres north out of town, then three more kilometres east into the desert, I'd find one of those dumping grounds. But the industrial zone had motorbike patrols operating to make sure locals or any unknown outsiders stayed away. Luckily it was a weekend and, my source said, there might not be anyone on duty in the evening.

At 6pm, I walked into the desert in search of the source of that ever-worsening smell. One hour and several sand dunes later, the view opened out – and the smell became almost suffocating. The rectangular pits, each the size of several football fields, lie side-by-side in the desert, walled with concrete and surrounded by green fencing as tall as a man. Ink-black water was being pumped into two pits, while two others were filled with black, yellow and dark red muds thinned with sand and lime. A bulldozer sat beside the pits, and white smoke hung in the air above.

Each pit was fed by several white fibreglass pipes coming across the desert from the direction of the industrial zone, about one kilometre away across the sand. As I walked towards the industrial zone, I often saw the pipes exposed through the sand. Black rubber tubes fed directly into the sand in some hollows, and the sand around those pipes has turned black. Kicking away the crust exposed a dark and foul-smelling coagulated mass.

Drive about 10 kilometres northeast of Elisi and you find yourself within the borders of the Ningxia city of Zhongwei, amidst rolling desert. Around 100 metres from the road lies a depression about the size of a football pitch, filled with stinking effluent, with several bulldozers busy filling it in with sand. Workers installing crash barriers on the road were all wearing masks – they said there are a number of sites like that nearby, and if you don't protect your face you'll soon end up suffering headaches and a sore

throat.

## Groundwater in crisis

The village of Temowula lies closest to the chemical plants – the nearest residents are less than one kilometre away. When I visited, Bateer, 20, was using a solar-powered pump to fill a leather bladder with water, in order to water vegetables he grows some distance away. Bateer lives near the source of the Tengger's water. Years back, he said, you could drill down a few metres and hit water here – now you need to go at least 40 metres deep.

Bateer says he plans to leave – the air is no longer clean, and excessive groundwater extraction by the chemical plants means water levels in the wells are lower every year. He is currently a first-year university student in Hohhot, and has returned home for the summer holidays to help his parents look after the sheep and camels, among other types of subsistence. He just wants to get away from the pollution at home and stay in the city.

A source told me there are about forty 180-metre-deep wells in the desert around Elisi, all supplying water to the chemical plants. I saw one well, numbered 31, marked as being the 'water supply for Qinghua Refined Chemicals Park'. My source pointed out power lines running out into the desert – each one leads to a similar well. Every year the number and depth of the wells increases.

Liu Shurun, a well-known botanist and grasslands ecologist, is a professor of ecology at Inner Mongolia Normal University. He warns that "as soon as groundwater becomes polluted, we don't just lose the habitats that have supported herders for generations – worse, we put the unique ecosystem of the Tengger, China's fourth-largest desert, at grave risk." And, he adds, once groundwater is polluted it's next to impossible to clean up. 🌱

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*Chen Jie is a Beijing News photojournalist. He is winner of chinadialogue's 2015 China Environmental Press Awards 'Journalist of the Year' prize.*



# 骑虎难下的彭州石化

2015年中国环境报道奖“最佳调查报道奖”揭示了四川彭州地方政府不顾事实和民众的环境利益，建设大型石化项目后骑虎难下的局面。

刘伊曼

原国家环保总局环评司分管规划环评的牟广丰，8年前带着一群专家来到四川省成都市北的彭州市，对四川石化基地的场址进行考查。“我一看那地方，怎么能建化工厂呢？”牟广丰告诉记者，“这不是开玩笑吗。一是怎么能建在江河源头啊？二是怎么能建在河滩地里呢，那得付出多大成本啊！”

但地方政府把过环评当成一场硬仗来打，地方官员带着“政治任务”长年累月泡在北京，俗称‘跑项目’。最终环保部还是“有条件”地批复了彭州石化基地的规划环评和项目环评。

2012年，一场反腐风暴席卷成都市，多名曾经参与或者主导四川石化基地项目的官员落马，这个项目似乎面临骑虎难下的局面，有可能造成的污染叠加效应也尚不可知。

## 彭州大石化

在四川彭州，为何要建一个大型石油化工基地？广为流传的说法是：早在1988年，四川省委、省政

府立足四川西部地区的重要战略地位，作出原油入川、建设四川乙烯及炼油工程的决策，以此填补四川和西南地区乙烯和炼油工业的空白，使西南地区工业结构得以转型和升级。

四川省人大代表多次在全国人代会上提出建设大型石化项目的议案。四川石化项目曾分别被国家纳入“七五”、“八五”发展规划及“九五”、“十五”拟建项目计划。

成都市地处岷江和沱江流域中上游，所在的成都平原腹地因都江堰而成“天府之国”，但因地处四面环山的盆地中，风少云多，污染物不易扩散，雾霾问题、水污染问题、功能性缺水等问题日益凸显。

当时被选作化工项目备用地的那片河滩地，属于彭州市隆丰镇，恰好处于成都平原上游生态屏障的重要地带。

原环保总局多位专家认为，不论是历次的环评报告，还是环保部门多次的审查报告、通知、批复中，从未讳言彭州选址位于彭州市和成都市城区次主导风上风向的事实，也从未否认这个地方位于沱江上游冲积

扇顶段的事实。而沱江下游产业集群中，人口密集，已经没有环境容量，彭州这个选址先天不足，不尽科学。

一位参与过彭州项目环评的官员告诉记者，弱势而尴尬的环保部门已经做了力所能及的努力，“地方政府把过环评当成一场硬仗来打，地方官员带着‘政治任务’长年累月泡在北京，俗称‘跑项目’。你不管提什么条件，他们都大包大揽承诺能做到。不管你提出存在什么问题，政府都下文给政策措施，保证限期解决。只想先把批文拿到，完全不顾这些承诺有没有办法兑现。”

在他看来，彭州石化最恶劣的示范效果在于：如果这样的选址都能建石化厂，那中国将没有地方不可以建，环评终究沦为为决策“编台词”的工具。

但支持者强调的是炼油项目对成都和彭州的重要性，描绘拉动经济增长的美好图景，对高科技、高投入的环保措施作了保证。比如，对于“炼油厂会不会污染地下水”的问题，四川省环科院高工刘永琪回答说，建设单位在严格的防渗措施

“为什么要选在彭州？我当时听到的理由是，那块地已经为发展工业留出来那么长时间了，你要再建，当地老百姓不干。”

基础上制定了防渗技术规范，“可以确保不造成地下水污染。”

清华大学地下水专家刘翔告诉记者，石化厂的污染物渗漏基本不可避免，现有的技术做不到十全十美，地下水污染之后也基本无法根治。

在环评报告附件里，对可能的危害有这样的描述：“当石化基地发生最大可信事故时，产生的苯、硫化氢等各种有毒有害物质的环境风险影响范围最大可达21.2平方公里，需要紧急疏散人员可达13万多人，包括可使居民产生严重中毒（致死半致死半径内）的5.65万人。”但在彭州市召开的环评听证会上，没有任何专家向民众讲述这一风险。

## 为什么不能换个地方

“石化项目迄今为止已经投入300多个亿。”石化基地管委会的一位官员告诉记者。在工程尚未完全结束，决算也还没有出来的情况下，已知的石化基地环保投资已有约50个亿。而根据最初的预算，环保投资是27.85734亿元。

“我们也不知道为什么非得在彭州不可。”2013年2月28日，成都石化基地管理委员会投资服务处处长向东对记者说，“只知道是‘战略’需要。从环境角度考虑，另一备选场

址金堂肯定优于彭州。”

向东说，彭州作为石化基地的选址，并不由四川省或者成都市来做主，也不由中石油做主，不为环保部的更换建议而改变，更轮不到县一级的彭州来决定。而他所了解到的中石油四川石化公司的一些管理人员，都表达过“其实更愿去金堂”的意见。如果搬去金堂，中石油花不了现在这么多的环保投资。正因为非得在彭州不可，所以就不计代价上环保手段，超标准上措施。“只要国际国内能用的，都上。”

向东说：“环保部当时是强烈倾向金堂。但能够让环保部最终认可彭州选址，肯定有更充足的理由在里面。这个理由是我们没有掌握的。”

原国家环保总局曾提出要进行场址比选论证。换句话说，这也是变相提出“这个选址有些不合适，能不能换个地方？”但中石油四川石化公司和地方政府均不愿作出让步，通过“承诺腾环境容量”等方式，为石化基地落地彭州制造理论支持。

“为什么要选在彭州？我当时听到的理由是，那块地已经为发展工业留出来那么长时间了，你要再建，当地老百姓不干。”时任环保总局环评司司长，并经手签发该项目环评批文的祝兴祥告诉记者。

原环保总局对要在沱江流域建

石化项目就很反对，因为沱江污染已经很严重，没有环境容量。但是后来不断谈判，四川省政府为了治理沱江下了好几个文件，承诺能把环境容量腾出来。

最后，经过专家团队的反复讨论和争吵，环保部“有条件”地批复了石化基地的规划环评和项目环评。

但环境容量也并不是下文件、上措施就马上能腾出来的。记者查阅成都市环保局公布的日均空气质量报告发现，至少从统计数字上看，即便是在彭州市的区县范围内，大气容量不仅没有腾出来，反而有些恶化。

2012年3月，成都市原环保局局长王文斌表示“彭州石化环评过程非常严格，建成后基本没有什么污染”之前，曾系统地向本刊记者讲述了成都市目前面临的空气、水等方面的压力。

王文斌说，成都的空气扩散条件差，原本就要靠“洗天”来保证空气达标率，也就是人工降雨，一年要进行五六十次。

2012年6月，王文斌因“抑郁症”入院，9月去世。王文斌离世后不久，一场反腐风暴旋即席卷成都市，也重创了中石油，多名曾经参与或者主导四川石化基地项目的官员落马。继原成都工投老总戴晓明、原市委书记李春城、原中石油老总蒋洁敏等人陆续被调查之后，2013年10月，中石油四川石化公司低调换帅。

但这个项目，目前骑虎难下，不知将如何收场。

刘伊曼 原《望东方周刊》记者  
原文发表于《望东方周刊》



# Pengzhou petrochemical project: A fait accompli?

Liu Yiman is winner of chinadialogue's 2015 China Environmental Press Awards 'Best Investigation' prize for this report originally published in Oriental Outlook in March last year

Liu Yiman

An anti-corruption investigation in Chengdu has heightened tensions over a controversial petrochemical plant in Sichuan province amid central government reforms of the widely-discredited and graft-prone environmental impact assessment (EIA) process.

Controversy over the partially-built project dates back to 2007, when Sichuan's local government granted an EIA and lobbied central government intensely to get the go-ahead for the project near Pengzhou, a small industrial city in greater Chengdu.

Ultimately, the central government, through the Ministry of Environmental Protection (MEP), granted 'conditional' approval to project.

But in 2012, a crackdown on corruption in Chengdu saw a number of officials once in charge or associated with the Pengzhou plans removed from office.

Now, it may not be possible for Sichuan's government to cancel the project, despite widespread scepticism the Pengzhou site is suitable for such a facility.

To date, over 5 billion yuan (around US\$800 million) has been spent on the project.

According to an official involved in the EIA process for the Pengzhou plant, a terrible example has been set: if a petrochemical complex can be built there, a similar facility could be built almost anywhere in China, and approval could be obtained just by saying the right things.

Another official, Mu Guangfeng, who previously worked at the State Environmental Protection Administration



*Petrochemicals plants, like the Pengzhou project pictured above, are deemed strategic by central government and are prized by provincial officials as potential sources of taxes and jobs*

(SEPA, now the MEP), was tasked with assessing the environmental impact of regional development plans.

Eight years ago, he accompanied a group of experts to the proposed petrochemical development at Pengzhou.

"I took one look – how could they think about building it there? It was a joke. First, you can't build [a petrochemical plant] at the head of a river. Second, you can't build it on floodplains. Think about what that's going to cost!"

So why was Pengzhou earmarked for a petrochemical complex in the first place? The usual reply is that in 1988, provincial authorities used Sichuan's strategic position

in the south-west to justify the import of crude oil and construction of ethylene plants and oil refineries – industries that part of China previously lacked.

At National People's Congresses, the province's representatives repeatedly proposed petrochemical construction, while some projects were written into Five-Year Plans.

The area surrounding Chengdu (including Pengzhou) lies on the middle and upper reaches of the Min and Tuo rivers, on plains known since ancient times for their irrigation systems and self-sufficiency. But the plains are surrounded by mountains and tend to be cloudy and windless – meaning pollutants there don't disperse, which has led to worsening air and water pollution problems.

The flood plains chosen for the petrochemical project, in the town of Longfeng, part of the city of Pengzhou, are an important part of Chengdu's environmental buffer zone.

Former SEPA experts say they repeatedly pointed out in environmental impact assessments, investigations, circulars and letters of reply, that the Longfeng site is not only often upwind of both Pengzhou and Chengdu, but that it also lies on the alluvial delta of the Tuo river.

As the banks of the river are home to many businesses and densely populated, the river's ecosystems aren't able to deal with large new development. The site in Pengzhou, therefore, was unsuitable and had not been scientifically selected.

One official involved in the EIA process said the environmental authorities – weak, and in a difficult position – had done everything they could.

“The local government treated it like a battle to be won, with officials stationed in Beijing for extended periods to lobby for the project. It didn't matter what conditions were set, they'd always promise to meet them. When problems were raised, the (provincial) government would each time come up with a policy and promise to resolve the issue by a certain deadline. They just wanted approval and didn't care whether or not they could fulfil their commitments.”

Backers of the project stress how important the refinery

will be for the local economy, describing the potential boost to economic growth as well as assurances that high-tech, high-cost environmental protection measures will be put in place.

For example, addressing concerns about groundwater pollution, Liu Yongqi, senior engineer with the Sichuan Academy of Environmental Sciences, said builders had taken strict measures and provided strong guarantees to prevent pollution seeping into groundwater.

This is contested by many experts. Liu Xiang of Tsinghua University says groundwater pollution from petrochemical plants is inevitable – as existing technology cannot prevent it, and once groundwater is polluted, it is effectively impossible to clean up.

An appendix to the Pengzhou's plant's EIA described the possible harm: “If a worst-case scenario were to occur, the environmental risk from toxins, including benzene and hydrogen sulphide, would affect an area of up to 21.2 square kilometres and require the emergency evacuation of over 130,000 residents, placing 56,500 at risk of severe poisoning (within the 50% lethal dose radius).”

But none of the experts at a hearing held by the Pengzhou city government communicated any of this to the public.

### Why Pengzhou?

After repeated debate and argument among expert groups, the central government gave 'conditional' approval to EIA reports.

This was despite SEPA being strongly opposed to petrochemical development on the Tuo river – which was already badly polluted.

“Why Pengzhou? At the time, I was told that plot had been set aside for industrial development for so long it had to be used, or the locals would have objected,” said Zhu Xingxiang, then head of SEPA's EIA department, and the man who signed off on the EIA report.

In 2013, Xiang Dong, head of the investor services office of the Chengdu Petrochemical Complex Management

“Why Pengzhou? At the time, I was told that plot had been set aside for industrial development for so long it had to be used, or the locals would have objected.”

Committee, said that “we just know it (the decision) was for ‘strategic’ reasons. In environmental terms, the other option, Jintang, was better.”

Xiang says the choice of Pengzhou as the project site wasn’t made by either the Sichuan or Chengdu governments, or the China National Petroleum Corporation (CNPC), much less the Pengzhou county government. Nor was it changed to reflect MEP recommendations.

“The MEP had a strong preference for Jintang,” Xiang said, “but must have had good reasons for ultimately approving Pengzhou. However we don’t know what those reasons were.”

According to Xiang, officials with a CNPC subsidiary, CNPC Sichuan Petrochemicals, even said they would rather have built in Jintang, where environmental protection measures are cheaper. And yet the selection of Pengzhou has meant huge spending, even taking measures beyond those required by the relevant standards.

Early this decade, Wang Wenbin, former head of the Chengdu Environmental Protection Bureau, told this newspaper the “environmental assessment process for Pengzhou was very strict, and there won’t be any pollution

to speak of after completion.”

Prior to that, he had spoken consistently to this newspaper about the air and water pollution pressures the city was under.

Before his change of tune, Wang explained that conditions for dispersal of pollutants in Chengdu were poor, that the city relies on artificial rain to keep air quality up to standard – and uses this method 50 or 60 times each year.

Then in June 2012, Wang was admitted to hospital for depression, and passed away in September. Subsequently, a major corruption crackdown in Chengdu left CNPC badly wounded, and a number of officials once in charge or associated with the Pengzhou plans fell from power.

Among those, Dai Xiaoming, former head of the Chengdu Industry Investment Group, Li Chuncheng, the city’s former Party secretary, and Jiang Jiemin, former CNPC boss, all found themselves under investigation. In October 2013, there was a low-key change of leadership at CNPC Sichuan Petrochemical.

The question now is what will be done in Pengzhou. ☹

*Liu Yiman is a former reporter at Oriental Outlook.*



# 气候移民

气候变化其实就在我们身边，宁夏气候移民的生活为您全方位解读气候变化产生的影响，本文获中国环境报道“最佳气候变化奖”。

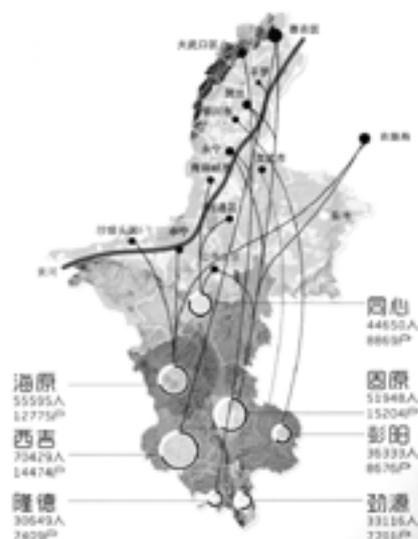
石毅 等

当屋顶被七手八脚掀落的时候，马国清一家新的生活就要仓促开始了。31岁的马国清和父母妻儿生活在宁夏西吉一个叫芦子窝的村里，他们对未来的新家一无所知，只是拿到一个有地址有门牌的新房钥匙。那天是2013年12月清冷的一天，政府雇来的搬迁车队停在村口，此时距离人们得到确切搬家通知不过两天，浩浩荡荡的搬家队伍从宁夏南部山区向北部平原出发，留下处处是残缺旧屋的村庄。

马家的搬迁，源于宁夏一项涉及35万人的移民计划。迁出地位于中国半干旱黄土高原向干旱风沙区过渡的农牧交错地带，生态脆弱，干旱少雨，自然灾害频繁。

这块干涸的黄土高原，亦是中國连片扶贫区之一，有个更为人所熟知的名字——西海固，1972年被联合国粮食开发署确定为最不适宜人类生存的地区之一。

按照规划，迁出地要实施生态修复，要求自然村或行政村整体搬迁。不能马上搬走的，也要拆掉一部分。宁夏移民局副局长郭建繁说，过



根据宁夏“十二五”中南部生态移民规划，从2011年到2015年间，宁夏中南部将有35万人被迁移，除了将他们向居住县内生态条件较为优越的地方迁移外，还有很多人离开故土，迁往宁夏最为富饶的北部

去没有这个政策，出现了移民在迁出地和迁入地两头生活的情况，给人口管理和生态修复都带来了很多问题，为了让人不再两头摆动不得已就要拆房子。

芦子窝的名字来自于山沟里一窝野生的芦草，它们在落了雪花一样的盐碱地里生长。芦子窝位于宁夏

南部固原市西吉县。在西吉，干旱经年累月，初来乍到的人，直觉得嗓子眼儿都皱起来，就像裂开的黄土地。

那里有多旱？西吉气象局的统计表明，西吉年均降水量为200-650毫米，蒸发量1500-2000毫米之间，蒸发量大大高于降水量。

水是村庄的头等大事。赶驴挑水，是每家每户清晨起来的第一件事。除了挑水，户户都要造水窖。

因为贫瘠，年轻人急于离开，外面的人不愿来，但人口还是超载。

曾任宁夏发展和改革委员会副主任的马忠玉说，宁夏中南部地区的人口承载能力只有130万人左右，但现在当地人口已经230万了。超载会导致更加贫困，环境更加退化。

为缓解环境压力，2011年“十二五”生态移民计划启动。芦子窝被列入搬迁名单，接收他们的是500公里外、宁夏北面的村庄庙庙湖。

## 气候变化让事情变得更糟

“中国西北干旱环境早在晚白垩纪和早第三纪就开始形成，并不是

短期内造成的。”宁夏大学资源环境学院教授汪一鸣说，“喜马拉雅造山运动之后青藏高原大幅度隆升，干旱程度就加剧了。”

不过，如今的全球气候变化似乎使事情向更糟的方向发展。

根据宁夏气象局的研究，近50年那里的平均气温上升了2.2℃，干旱及其它极端气候事件也比过去更频繁。政府间气候变化专门委员会认为，全球海陆表面平均温度在过去130年间升高了0.85℃。

气温上升有可能会使未来降水增加，但宁夏所处的西北干旱半干旱区生态脆弱，这使得气候专家林而达认为升温同时会导致蒸发增加，可能抵消甚至超过降水量增加的作用。

一项由中英瑞三国于2010年联合开展的中国适应气候变化项目研究显示，宁夏中南部为雨养农业，农田靠天吃饭，缺乏灌溉水，随着气候变化，一来粮食亩产呈现递减趋势，仅为30公斤左右，二来气象灾害造成的粮食产量损失呈不断上升趋势。

环境保护部2005年统计显示，中国95%的绝对贫困人口生活在生态环境极度脆弱的地区，而这部分地区对气候变化更为敏感。

已80岁的马德录听长辈说，一家人于1894年从甘肃逃荒而来，是芦子窝最早的定居者。祖爷爷来的时候，就是看这里有泉，便在黄土坡上修了土窖住下来。

马德录说，人民公社时候，为了提高粮食产量，把能开荒的山头都开了。“泉水原来不小，过几年就不行了，高处的没有了，又在低处挖。”

发源于宁夏月亮山南麓的葫芦河现在只剩下干涸的河床。西吉自

来水公司的经理高玉杰将此归罪于过度的开发和全球气候变暖。他说，在20年以前，葫芦河岸还有很多树，“我小时候还在河里玩水。”

干涸的河道在一些地方成了种植西芹的农田，过去几年西芹价格看涨，这种需要大量水供养而生长的蔬菜在西吉得到了大力推广。高玉杰无奈地说：“我们研究水的人都知道发展西芹是个问题，但它又确实在农民增收上作用很大。”

脆弱的环境迫使人们利用更多的自然资源扩大生产，而这种生产又反过来导致环境愈加恶化，形成了所谓的PPE怪圈——贫困、人口、环境互为因果关系。

对此，汪一鸣说，移民，就是让自然资源的承载量逐渐回归到一个合理的水平。迁移不代表退缩，人与自然之间，需要这样的妥协。

在西吉那些已经搬出了一年以上的地方，苜蓿和不知名的野草已经在暖暖的空气里露芽。

## 新村困境

但移民新生活却并不如人意，处处充满着焦虑，他们需要面对住房面积、户口、养殖畜牧、工作、收入来源等种种问题。

就是否应该搬迁，留守的中老年人和外出打工的年轻人形成了不同的阵营。

北方民族大学教授范建荣对“十二五”移民的研究发现，中老年人搬迁意愿并不强烈，有的是因为对外界的适应能力不如年轻人，而有的则是因为“故乡情结”。

马国清的叔叔、45岁的马存子

是主张留下的人之一。尽管政府已经下了最后通牒，但马存子仍没有放弃留守的念头。春播一到，他拎着土豆和小麦种子又上地里去了。

马国清的新家在庙庙湖七区，母亲马翠芳搬来了几个月，却因为不识字也不认得几个邻居，轻易不敢离开村子，父亲马炳武总惦记着原来家里的牛和农田，用他自己的话说，在新家他变成了“没用的人”。

马炳武骑着借来的自行车到菜市场转了一圈，什么也没买，回来闷声地说，“这里的菜比我们西吉贵着呢！土豆家里5毛，这里一块（每公斤）！”

年纪大的人高兴不起来，年纪轻的人也在担忧自己的未来。临近入春招工的季节，这种焦虑像传染病一样在年轻人中蔓延开来。村支书的家里挤满了人，都是来打听招工信息和反映各种困难的。“政府把我们搬过来了，可现在我们就觉得像一盘散棋，不知道该怎么走了！”不知道谁在人群中冒出这样一句话，引起人附和。

“一方面是招工企业找不到合适的人，另一方面很多移民又找不到合适的工作。”平罗县劳动就业服务局的王兴龙说。

在学术界，政府采取切断移民与原居住地联系的“断根”方式引发了争议。中国社会科学院城市与发展与环境研究所博士后孟慧新在考察了气候移民案例后说，如果移民不能适应新的生产生活方式，适应气候变化的目标也难以实现。

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石毅，澎湃新闻记者



# Climate Migrants

Forced relocations in China's arid Ningxia province underline the difficulties of adapting to climate change. This piece won a chinadialogue award for 'Best Climate Report'

Shi Yi etc.

As the roof of their home was brought crashing down in a planned demolition, Ma Guoqing and his family set off to start their new life. Ma, 31, was leaving the village of Luziwo in the northern Chinese province of Ningxia, where he lived with his parents, his wife and his son.

They knew nothing of their new home, as he'd been given only a new key and the address. So on a cold and clear December day in 2013, only two days after definite notice of relocation was issued, they set off in a large convoy of trucks hired by the government to move the villagers. They left the mountains in the south of Ningxia and headed for the plains of the north, leaving behind a village of broken old homes.

Ma and his family's move was just one small part of plans by Ningxia officials to relocate 350,000 people. Residents are being forced to abandon their homes in an area that is becoming increasingly sandy, where the environment is fragile, rain is rare, and natural disasters frequent.

The parched loess plateau is also one of China's poorest regions. Better known as Xihaigu, in 1972 it was named by the UN World Food Programme as one of the world's most uninhabitable places.

Today, Xihaigu is the site of an ecological restoration scheme in which entire villages are to be emptied. When residents leave, their homes are demolished, even with neighbouring homes still occupied. Deputy head of the Ningxia Relocation Bureau, Guo Jianfan, says this new policy aims for more decisive relocations than in the past.

Authorities justify the harsh moves, saying people relocated to other areas often drift back, dividing their time

between old and new homes, making it difficult to manage movements of population and restore vulnerable ecology such as grasslands.

Luziwo village is named after the reeds that grow in a hollow up in a mountain gully, where the soil is so salty crystals lie on the ground like snow. Located in Xiji county, part of Guyuan city in southern Ningxia, droughts there can last years, and new arrivals find their throats dry up and crack, just like the soil.

So how dry is it? Figures from the county meteorological bureau put the average annual rainfall at between 200 and 650 millimetres – but that is far outstripped by annual evaporation figures, of between 1,500 and 2,000 millimetres.

Access to water is the focus of village life. The first daily



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*In one of China's most parched regions, villagers in Ningxia province are being relocated to less arid areas as precious water supplies evaporate in the face of climate change*

“Relocations are intended to reduce demand for natural resources – mainly water – to a sustainable level. It isn't about retreating, Wang says, it's a necessary compromise between humankind and nature.

— Wang Yingming

chore is to direct donkeys to the well and haul back water that is then stored in underground cisterns.

While younger villagers are keen to leave and escape poverty, and outsiders are unlikely to choose to live here, the area is still overpopulated.

Ma Zhongyu, former deputy head of the Ningxia Development and Reform Commission, says the south of the province can only support about 1.3 million people – compared with the 2.3 million living there currently. Overpopulation, he says, exacerbates poverty and environmental damage.

A relocation programme was launched in 2011 in order to reduce pressure on the environment as part of the 12th Five-Year Plan. Luziwo was chosen as one of the villages from which residents were relocated, moving to a village 500 kilometres north in Pingluo county, located near Miaomiao lake.

Although relocations only began in the past few years, Ningxia's arid climate is by no means a recent phenomenon, said Wang Yiming, a professor at Ningxia University's School of Resources and the Environment.

“The arid environment of the north-west of China started to take shape around 65 million years ago,” explained Wang. “The formation of the Himalayas greatly increased the height of the Qinghai-Tibet Plateau, and aridity increased.”

But climate change does seem to be making things worse.

Research by the Ningxia Meteorological Bureau has found average temperatures here have increased by 2.2C over the last 50 years, with droughts and other extreme weather events becoming more frequent.

That compares with an average global increase in land surface temperatures by 0.85C over the last 130 years, according to the UN's climate science panel.

In some areas, increased temperatures can lead to more rainfall, but Ningxia's arid conditions and impact of global warming will result in increased evaporation, so any extra precipitation will be lost, says climate expert Lin Erda.

A joint study into climate change adaptation in China, carried out in 2010 by China, the UK and Switzerland, found that agriculture in central and southern Ningxia relies on precipitation, rather than irrigation.

Climate change has seen grain yields per mu (a Chinese unit of land measurement) fall to only about 30 kilogrammes, while climate disasters are increasing crop losses.

Statistics for 2005 from the Ministry of Environmental Protection show 95% of China's poor live in areas with extremely fragile environments – areas particularly sensitive to climate change.

He remembers that during the time of people's communes, any land that could be cultivated was exploited, and even mountaintops were used to try to grow crops and increase harvests.

“The springs didn't give much water to start with, and after a few years the ones high up failed and new ones had to be dug lower down.”

The Hulu river that once rose in the southern foothills of Ningxia's Yueliang mountains is now just a dried-up riverbed.

Manager of Xiji county's water company, Gao Yujie, blames overdevelopment and global warming. He says just 20 years ago the river was lined with trees, “I played in the river when I was a kid,” he recalled.

Parts of that dried-up river bed are now celery fields as prices for the crop have risen in the last few years, meaning the water-hungry vegetable is much more widely planted. Gao says he understands but disapproves of this choice: “Those of us who study water know this is a problem, but growing celery does increase incomes for farmers.”

The fragile environment forces more use of natural resources to increase harvests, meaning poverty, population, environment all become interlinked.

Wang Yiming explains that relocations are intended to reduce demand for natural resources – mainly water – to a sustainable level. It isn't about retreating, Wang says, it's a necessary compromise between humankind and nature.

And in the parts of Xiji emptied a year or more ago, alfalfa – an important source of forage for livestock – and wild grasses now sprout up into the warm air.

## New homes, new problems

But life in the new villages isn't as good as was hoped. In some cases, the new homes are smaller than those relocated villagers have left, while newer residents complain about problems with bureaucracy, farming, jobs, and other sources of income.

Fan Jianrong, a professor at the Beifang University of Nationalities, who has researched relocation of communities, finds that older villagers are the most despondent about the prospect of moving and have the biggest problems in adapting to new homes.

Guoqing's uncle Ma Cunzi is 45, for instance, and wants to stay in Luziwo despite a final government ultimatum to leave. He even planted potatoes and wheat as soon as the weather was right.

The family's new home is in Miaomiao Lake's District 7. His mother, Ma Cuifang, has been here for several months, but doesn't like to leave the village as she can't read and doesn't know many of the neighbours. His father, Ma Bingwu, spends his time thinking about the cows and fields he used to have.

Now, he says, he's "useless" to the family. He rides a borrowed bike to the vegetable market, but comes home empty-handed and complaining about the prices. "It's all more expensive here than in Xiji. It was 0.50 yuan for a kilogramme of potatoes there, and 1 yuan here!"

And it is not just older people that can't settle here. Younger residents have become increasingly anxious about jobs and opportunities.

The town's Party secretary's home is full of people who come to ask about work or complain of various problems.

"The government moved us here, and now we don't know what we're meant to be doing," says someone in the crowd, to general agreement.

Wang Xinglong of the Pingluo county labour and employment bureau explained that "on one hand you've got companies in the area that can't find the workers they need, and on the other hand, many relocated villagers can't secure suitable work."

The government's decision to cut off transport and logistical links to villagers' original homes has caused controversy amongst academics.

Meng Huixin, a post-doctoral student at the Chinese Academy of Social Sciences' Institute of Urban Development and the Environment, said success of the Ningxia relocation effort will be crucial for China to demonstrate capacity to adapt to climate change. 📷

*Liu Yiman is a former reporter at Oriental Outlook.*



# 机动船能否驶进泸沽湖？

2015年中国环境报道奖“最佳公共服务奖”讲述了，四川泸沽湖景区试行用现代化机动船取代旧式猪槽船所引发的环境讨论。

钟美兰



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为招到当地民众抵制的机动游船，而 沽湖摩梭人世代使用的水上交通工具，也用于载客的猪槽船恐遭淘汰

2014年10月29日，网曝四川省盐源县泸沽湖景区将投放机动游船，这引起当地一片质疑声。盐源泸沽湖为何要投入新式机动游船？到底对环境有无污染？当地百姓能否接受？是否会破坏摩梭文化？记者来到位于四川省和云南省两省境内的泸沽湖，实地求证。

## 机动船遭到抵制

11月4日，阳光明媚，泸沽湖像一面镜子一样静静地躺在高原上，一辆牌照为川L的旅游大巴停在了洛洼码头。游客随后登上猪槽船，在欢歌笑语中向湖心划去。猪槽船由一根粗壮的圆木镂空、两头削尖而

成，因其行状如一只长长的猪槽而得名，是泸沽湖当地少数民族摩梭人的重要湖上交通工具。

“只怕这样和谐的画面再也看不到了。”泸沽镇博树村村民二车龙布说。

“我们真的不明白，现在经营得好好的，为什么要弄几条机动游船？”二车龙布颇为不解。

“游客来泸沽湖，也不是为了贪图舒适性的。”这位工程师说，此举剥夺了游客对摩梭文化的体验，对游客来说是一种损失。

二车龙布心头的问号，也打在了当地众多人的心上。

“为了安全和满足游客多样化需求。”盐源县旅游局局长彭启寿说，猪槽船是泸沽湖摩梭人世代使用的水上交通工具，用于载客，存在安全隐患，给游客带来很大不便。

“使用机动游船能够把当地百姓从划船中解放出来。”凉山州泸沽湖景区管理局稽查大队队长李直之说。

可博树村村民依若次尔说，划了这么多年，猪槽船很少出事故，唯一一起还是船主违规操作。用体力挣钱，村民乐意。

盐源县地方海事处处长长沙国清介绍说，猪槽船自运行以来，虽发生过安全事故，但因救援及时没有造成一名游客伤亡。

记者随机采访了来自北京、乐山和广东等地的 57 名游客，仅有 2 名表示可以接受机动游船。“机动游船到处都是，到泸沽湖旅游就是奔着它的静和摩梭特色来的。”广东游客董小姐说。

盐源县旅游局局长彭启寿说，4 艘机动游船在颜色选用和制造上，都尽量使用摩梭元素，且为了保证不污染泸沽湖，使用的是清洁能源。

但村民们不买账。11 月 3 日和 4 日，尼玛甲泽发起“保护泸沽湖母亲湖，拒绝机动游船驶入”的签名活动，仅 3 日，就有 1500 人参与，其

中 1300 人是云南境内泸沽湖村民。

记者了解到，前两年，四川泸沽湖就尝试投放机动船，最终因民意而搁浅。

据盐源县环保局副局长何志安介绍，泸沽湖是国家级 AAAA 旅游景区，是环境敏感区域，若需要投放机动游船，必须取得环评手续，但这 4 艘机动游船并未取得任何环评手续。

“泸沽湖有一圈藻类植物，用来净化泸沽湖的水质，如果遭到破坏，后果不堪设想。”村民代表喇甲聪说，机动游船运行后，游船螺旋桨将毁坏泸沽湖特有的海藻花；机动游船给泸沽湖带来的噪音，也将打破泸沽湖的安静祥和。

4 艘机动游船 10 月底从大嘴码头刚卸下车，就被路过的村民拍照上传微信朋友圈，仅一天时间，阅读量就过万。“村民听到消息，99% 的人都反对使用机动游船。”喇甲聪说。

彭启寿认为，村民反对的原因，就是担心政府成立游船公司，与民争利。

但泸沽镇多舍村村民杨仪右说：“反对的原因主要是怕破坏泸沽湖和摩梭文化。”摩梭人世代靠泸沽湖生存，一旦毁了，利益受损的不仅是摩梭人。

11 月 6 日，丽江泸沽湖管委会办公室杨姓主任告诉记者，根据 2010 年凉山州泸沽湖景区管理局与

丽江泸沽湖省级旅游区管理委员会制定的“滇川泸沽湖保护管理公约”规定：泸沽湖水域除湖面执法和安全救护管理所需的机动船外，禁止燃油、太阳能、电瓶等动力船只行驶。他希望能够制止使用机动船。

## 文化体验非机动船所能替代

本报报道机动船试图驶进泸沽湖后，引起社会关注，相关部门和专家学者都表达了他们的看法。

11 月 10 日，盐源县有关部门约见媒体时回应：满足三个条件，才会将机动游船投入试运行。

“第一是验收合格，取得相关资质；第二，要有百姓接招；第三，需征得云南泸沽湖管理委员会的同意。”该县旅游局副局长彭正华说。

当时，预备投入的机动游船，停留在泸沽湖的王妃岛上。正处于试船阶段。

凉山州环保局污控科副科长陈忠说，机动游船即便是环保型的，放在泸沽湖这样的景区，事关百姓利益，无论是试船还是正式运行，都会对当地环境造成影响，事前需要做环评，而环评的前置条件是必须做社会稳定影响调查。

“如果社会稳定影响调查过不了，环评就过不了。”陈忠说，而明

显的是，当地环保部门对此事并不知晓，机动游船“未批先引入”，应对业主做出相应处罚。

云南省社科院副院长杨福泉说：“我真的不太能理解盐源县为什么要这么做？他们有什么理由增投机动游船？”

杨福泉认为，从中国旅游的品位和环境来说，像泸沽湖猪槽船这种旅游设施和当地民风、湖光山色和神秘的摩梭文化融为一体，已经差不多了。猪槽船不仅是一种运载工具，本身就是一种文化和旅游资源，村民可凭此挣钱，同时为游客讲述摩梭文化和历史，游客甚至可以划船自己找感觉，这样的文化体验，不是机动游船可以替代的。

“不要以为增加了旅游收入，就是好的。”杨福泉说，把机动船放进

湖里，整个文化景观就已经被破坏了。不要把高品位和现代化的旅游与机械的、效益高的工具联系在一起，云南国家公园普达措就有深刻教训，在上世纪90年代使用机动游船，可是游客不接受，很快就被取缔了。

文化部民族民间文艺发展中心西南研究中心主任杨正文也持相同观点，他认为，旅游发展要以当地村民诉求为主，以有利于当地文化生态、社会和谐为主及可持续性发展为主。“旅游本来就是一把双刃剑，可产生经济效益，也可能造成文化污染，失去地方特色、民族特色的文化自然会失去魅力。”

杨正文说，猪槽船当然不是摩梭文化的全部，但它是当地居民适应湖面生活创造出来富有地方文化特色的文化符号，过去他们用之谋

生，为什么现在不可以依然用自己熟悉的文化谋生，既可以让文化延续，又能产生效益？

四川省环境保护科学院一位不愿意具名的高级工程师说，对泸沽湖的环境保护，不仅仅是水质的问题，而是整个生态系统，包括空气、生物的多样性，机动游船所使用的液化气也许不会对水质造成影响，但是会对空气和湖里的藻类造成影响。

“游客来泸沽湖，也不是为了贪图舒适性的。”这位工程师说，此举剥夺了游客对摩梭文化的体验，对游客来说是一种损失。

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钟美兰，《四川日报》记者



Award-winning Article

# Lugu Lake story, by the Public Service Award winner

Zhong Meilan and the Sichuan Daily won the 2015 *chinadialogue* Public Service Award for this story

Zhong Meilan

Lugu lake, a scenic area in Sichuan, is at peace again after conservationists won a battle over the use of motorboats on a waterway famed for its natural beauty, religious mysticism and cultural heritage.

Managers of the lake wanted to replace the traditional dugout boats used by locals with more modern motor-powered alternatives. But media coverage led to concerns about environmental and cultural damage, and the plans were shelved. The traditional boats remain, in harmony with the mountain backdrop and local Mosuo culture.

In October last year, information circulated online that Yanyuan county in Sichuan was to start using motor-powered boats on Lugu Lake. Contributors to online forums from southwestern provinces were quick to ask questions: Why were the new boats needed? Would they cause pollution? Did the locals want them? Would this harm the local Mosuo culture? I visited the lake, lying on the border of Sichuan and Yunnan, to find out.

It's November 4, and Lugu lake shines mirror-like under a bright sun. Tourists are disembarking a Sichuan-registered tour bus at the Luowa dock and clambering into the boats traditionally used here: a large canoe, known as a

'pig-trough boat', made of a hollowed-out tree trunk with rounded ends.

Laughing and chatting, visitors row themselves out onto the lake. The local Mosuo people use these boats to get around the lake, and as Erche Longbu, from the local village of Boshu puts it: "It'd be a shame to lose such a pretty scene."

He just doesn't understand why the lake's managers would want to use modern, noisy disruptive boats: "Business is going great, I really don't see why they want to bring in motorboats."

Many other locals have the same questions.

Peng Qishou, head of the county tourism bureau, says the use of motorboats is "for safety and to meet the varied demands of tourists." He explained that while the Mosuo people have used the dugout, motorless boats for generations, there are safety concerns when they are used to carry passengers, and they are inconvenient for tourists.

Li Zhizhi, head of the inspection team at the Lugu Lake Management Bureau, adds that "using the motorboats will mean the locals will no longer need to do the rowing."

But Boshu villager Yiruo Ci'er has been rowing the

“Tourists don't go there for the comfort,” a senior engineer with the Sichuan Academy of Environmental Sciences added. The new boats would have removed a cultural experience – and been a loss for visitors too.

dugouts for years and says accidents are very rare – the only one happened when the owner was breaking the rules. And, he says, villagers are happy to make a living in this way.

Sha Guoqing, head of the county marine bureau, says that although there have been accidents, prompt rescue efforts have prevented any serious injuries to tourists.

I spoke to 57 tourists from places that include Beijing, Leshan and Guangdong – only two say they agree with introducing motorboats. “You’ve got them everywhere, but you come to Lugu lake for the quiet and the Mosuo culture,” says one visitor.

Tourism chief Peng Qishou pointed out that the four new boats had been designed and painted to blend in with Mosuo culture, and are powered by clean energy in order to prevent pollution.

The locals aren’t convinced. In early November, local resident Nima Jiase started a petition against the motorboats, gathering 1,500 signatures, nearly 90% of which from villagers on the Yunnan side of the lake, within three days.

He Zhi’an, deputy head at the county environmental protection bureau, said Lugu lake is a national AAAA-rated scenic area, and is environmentally sensitive. Introducing motorboats would require an environmental impact assessment, but this process wasn’t done for these four motorboats.

Village representative Lajia Cong expresses other concerns: “There’s a type of seaweed here that purifies the water – if that was harmed, there’s no telling what the consequences would be.” The boat propellers will damage the seaweed, he says, and the noise will ruin the peace and quiet of the lake.

The boats were delivered to the dock at Dazui in October and, immediately, passing locals posted photos on WeChat. Within a day more than 10,000 people had seen them. “I’d say 99% of villagers were opposed when they heard about it,” said Lajia Cong.

But Peng Qishou thinks villagers were worried that the local government was going to set up a company to run the boats and compete with locals for business.

Yang Yiyou, of Duoshe village, disagrees: “The opposition is because we’re worried about damage to the environment and Mosuo culture.” The Mosuo people have made their living from the lake for generations, but if the lake is ruined, it won’t only be the Mosuo people that suffer.

Mr Yang (unrelated) from the Lijiang Lugu Lake

Management Committee Office, says that in 2010 an agreement for joint conservation efforts was reached between his office and its counterpart across the border in Sichuan, the Liangshan Prefecture Lugu Lake Provincial Tourist Area Management Committee. One of the items in that agreement stated that unless necessary for law enforcement or safety, no boats powered by fuel, solar energy or electricity were to be used on the lake. He hopes this will prevent the use of motorboats.

## Cultural experiences

A week later, Yanyuan authorities met with media to announce a decision: the motorboats would only be used if three conditions were met.

Peng Zhenghua, deputy head of the county tourism bureau, explained: “First, the motorboats need to be checked and up to standard. Second, locals need to accept them. Third, the Yunnan Lugu Lake Management Committee has to agree.”

At that point the boats were being tested at an island in the lake.

Chen Zhong is head of the pollution prevention department at the Liangshan Environmental Protection Bureau. He said that even if the boats are environmentally friendly, an environmental impact assessment still needs to be carried out before they are tested or put into formal operation – their use will affect the local environment, and that means they affect the interests of the locals. And a precondition for the environmental impact assessment is carrying out a social stability assessment.

“If you can’t pass that social stability assessment, you can’t get past the environmental assessment,” explained Chen. And it is clear that local environment authorities were unaware the boats were being introduced and that the owners should be subject to punishment.

Yang Fuquan, deputy head of the Yunnan Academy of Social Sciences, expresses dismay about the plans for motorboats. “I really don’t understand why Yanyuan county wants to do this? What reason do they have for using the motorboats?”

Yang thinks there are few places left in China where visitors can see something like the Mosuo dugouts that is not only a cultural artefact, but is also part of the local scenery and customs, and is being used for tourism.

The dugouts aren’t just a method of transport – these boats are a part of the culture and a tourist attraction in

their own right. The villagers can make a living from them and while doing so tell the tourists about Mosuo culture and history. Tourists can even row the boats themselves to see what it's like – those are experiences the motorboats can't provide.

“You can't say something is better just because it makes more money,” Yang said, adding that the introduction of motorboats to the lake will damage the entire cultural landscape. Modern quality tourism does not have to mean mechanisation and higher profits.

Yunnan's Pudacuo National Park learned that lesson in the 1990s when motorboats were introduced to a lake there but quickly banned them after tourists objected.

Yang Zhengwen, head of the South-west Research Centre at the Ministry of Culture's Centre for Ethnic and Folk Literature and Art Development, agrees. He thinks development of tourism should be aimed at meeting the needs of locals: benefit the local culture, environment and society; and be sustainable. “Tourism is a double-edged sword – you can make money, but it also brings cultural

pollution. When local characteristics are lost, the local culture naturally becomes less attractive.”

Yang says that while the dugout boats are just one facet of Mosuo culture, they are essential to the ethnic group's identity, and how they live and use the lake.

A senior engineer with the Sichuan Academy of Environmental Sciences told this reporter that for Lugu lake, environmental protection isn't just about water quality – it is also relevant to the entire environment, including air and biodiversity. The liquefied gas the boats run on might not damage water quality, but will affect the air and the seaweed which lives in the lake.

“Tourists don't go there for the comfort,” he added. The new boats would have removed a cultural experience – and been a loss for visitors too. 📱

*This article was originally published on the Sichuan Daily website and can be found here.*

*Zhong Meilan is a journalist from Sichuan Daily.*

# 中国自主贡献提出 碳强度下降60%-65%的目标

中国提交应对气候变化国家自主贡献文件，描绘了全球最大温室气体排放国如何在2030达到碳排峰值的蓝图。

中外对话

中国计划在2030年左右二氧化碳碳排放达到峰值，具体的实施细节将对年底巴黎气候大会产生重大影响。

中国已经向联合国提交并披露了本国的应对气候变化国家自主贡献文件。在此之前，中国总理李克强在巴黎与法国政府首脑进行会晤时宣布，作为全球最大的温室气体排放国，中国将“做出艰苦卓绝的努力”，争取在2030年之前使本国的二氧化碳排放达到峰值。

该文件指出，中国计划在2030年之前将单位国内生产总值二氧化碳排放比2005年下降60%-65%。此外，文件还重申了到2030年实现非化石能源占一次能源消费比重达到20%左右的目标。

文件共计20页。“千里之行始于足下”文件中这样写道。

中国在其自主贡献文件中表示为实现上述目标，中国将在已采取行动的基础上建立新的、执法力度更加严格的司法制度和奖惩体系，加速本国能源、商品、原材料的生产消费转型。

分析人士称，与之前的承诺相

比，60%-65%的碳强度削减目标有了很大的提高，但排放量增长，达峰和下降的速率很大程度上取决于中国国内生产总值的增长情况。

气候组织（Climate Group）的马克·肯波尔表示：“中国是否会对此做出进一步的阐述，很值得期待。”

其他分析人士则认为，60%-65%的削减目标反应了中国在本国经济去碳化工作中取得的进步。

“要实现这个目标绝非易事，但研究表明中国只要不断努力，就能在2030年之前达成目标。这一承诺不仅会让中国受益，也将为全球应对气候变化的事业做出可靠的贡献。”世界资源研究所（World Resources Institute）的詹妮弗·摩根说道。

然而，绿色和平组织中国区项目主任李硕则认为，相对于中国的减排潜力而言，其国家自主贡献（INDC）中提出的目标稍显不足。

“这个目标没能全面的反应中国目前正在经历的重要能源转型，”他说，“鉴于中国目前煤炭消费量显著减少、可再生能源稳健发展、以及

亟待解决的污染问题，我们相信中国能够达到的成果要远远超过目前的计划。”

环保智库第三代环保主义（E3G）首席执行官尼克·梅比则认为该计划是中国进一步推动低碳发展的标志，他说：“中国现在必须把气候变化行动融入进自己雄心勃勃的发展和改革计划中。”

中国提交给联合国的文件，即国家自主贡献（Intended Nationally Determined Contribution，简称INDC）中的内容大部分都是之前公布过的政策和目标，其中包括去年宣布的将在2030年达到二氧化碳排放峰值的承诺。

中国在其自主行动计划中突出强调了一系列前所未有的措施，其中包括可再生能源使用和节能措施，关闭火力发电厂以及高耗能工厂，转而使用更加清洁的天然气等。

中国目前的碳强度与2005年相比已经下降了33.8%，但今天公布的计划并未详细涉及排放量达到峰值后具体的减排速度。

中国的自主行动计划中大部分



中国计划在2030年之前将单位国内生产总值二氧化碳排放比2005年下降60%—65%

内容只是在重复之前公布的能源政策，但这意味着中、美、欧三个世界排放量最高的经济体都已经公布了各自减排目标，并且将在新的巴黎气候协议的约束下，努力达成各自的目标。

## 首要任务

中方提交的自主贡献文件中没有对2030年之后的减排路径做出规划，并且没有提及中国是否能够，或是否愿意将排放量降低至避免全球气候变化失控的水平上。目前为止，中国拒绝了欧盟提出的每五年进行一次减排量复审的计划。

有评论员指出，中国应对气候

变化的行动完全是出于对自身利益的考虑，是“五年计划”中政府改革计划的一部分，目的是调整中国经济结构，治理空气污染，保障能源安全以及应对气候变化带来的负面影响。

在国家自主贡献（INDC）中提出的20%非化石能源消费比重的基础上，中国还必须在2030年之前增加8亿-10亿千瓦的零排放发电能力，这与中国目前的煤炭发电能力相当，并相当于美国电力部门目前的总装机容量。

## 成本

上周，参与联合国气候会谈的

中方首席谈判人员在与美方相关人员会面时表示，为了实现国家自主贡献（INDC）中的气候减排目标，中国将花费超过6.6万亿美元（约合人民币41万亿元）。

能源密集型产业会因此背负上巨大的成本，但却可以为可再生能源、节能设备、环境技术、低碳交通工具和电网设施等行业带来巨大的经济利益。

中国发布其国家自主贡献（INDC）之后，美国和欧盟等其他排放大国很有可能会向中国施压，要求其遵守共同的国际会计准则和报告要求，建立起一个稳定的、有规可循的系统，而到目前为止，中国方面并不同意这些要求。<sup>5</sup>

# China aims to cut carbon intensity 60%-65%

China's long-awaited climate plan gets broad welcome but there are few clues on the extent of post-2030 GHG emissions cuts

china dialogue

China has mapped out how it will try and peak greenhouse emissions by 2030 or before, details that could have a major bearing on UN climate talks aimed at delivering a deal in Paris later this year.

The world's largest emitter of greenhouse gases "will work hard" to peak its CO<sub>2</sub> emissions before 2030, Premier Li Keqiang said at a summit meeting with the French government in Paris ahead of the climate plan's publication in Beijing and submission to the UN's climate arm.

The document said China plans to reduce the carbon intensity of its economy 60%-65% per unit of GDP by 2030, compared with 2005 levels, and reiterated a previously-announced aim that renewables should make up 20% of its primary energy supply by the same date.

The English language translation of the 20-page document said: "A one-thousand-mile journey starts from the first step".

It added that to reach its 2030 goals, China would need to build on actions already taken by introducing new, toughly-enforced laws and penalties and hasten sweeping changes to how it produces and consumes energy, goods and raw materials.

Analysts pointed out that the 60%-65% goal on cutting

carbon intensity represented a major increase from previous commitments, but the rate at which emissions still rise, peak and then fall would be largely dependent on what happens to GDP in China.

"It will be interesting to see if China clarifies this further," said Mark Kenber of the Climate Group.

Other analysts said the 60%-65% carbon intensity target reflected the advances already made by China to decarbonise its economy.

"Meeting this goal won't be easy, but research shows that with a sustained commitment China can reach its target even before 2030. This commitment will benefit China and represents a serious and credible contribution to tackle climate change," said Jennifer Morgan of the World Resources Institute.

However, Li Shuo of Greenpeace China said the targets outlined in the INDC were at the less ambitious end of the scale of what is possible in China.

"It does not fully reflect the significant energy transition that is already taking place in China," he said, adding: "Given the dramatic fall in coal consumption, robust renewable energy uptake, and the urgent need to address air pollution, we believe the country can go well beyond what

The 60%-65% carbon intensity target will benefit China and represents a serious and credible contribution to tackle climate change.

— Jennifer Morgan

it has proposed today.”

Nick Mabey of consultancy E3G said the climate plan was a sign that China would pursue lower-carbon development, but that the country could do more. He added: “It must now integrate climate change actions into its ambitious development and economic reforms.”

Policies and targets that have already been announced, including last year’s promise to peak greenhouse gas emissions by 2030, make up much of the document submitted to the UN, known in official jargon as an Intended Nationally Determined Contribution (INDC).

In it, China highlights an unprecedented roll-out of renewable energy and energy efficiency measures, shutdowns of coal-fired power plants and energy-guzzling factories, and a switch to cleaner-burning gas.

China has already achieved a 33.8% cut in carbon intensity on 2005 levels but details of the climate plan released today provide few clues on how fast emissions will fall after an emissions peak.

Even though much of China’s climate plan is made up of previously-announced policies related to energy use, it means the world’s three highest emitting economies – China, US, and the EU – have published the climate action targets they are prepared to commit to under a new agreement reached in Paris.

### Priorities

But the document said little on the pathway for emissions cuts after 2030 and whether the country can, or will, drive down its emissions at a rate that would help the world avoid runaway climate change. China has so far rejected proposals

by the EU to review emissions cuts every five years.

Commentators have also pointed out that China’s action on climate change is driven by genuine self-interest and is part of the government’s reform agenda, outlined in the Five-Year Plan, to restructure the Chinese economy, and address concerns about air pollution, energy security, and the adverse impacts of climate change.

Based on the 20% non-fossil fuel commitment in the INDC, China will have to build an additional 800-1,000 GW of zero-emission generation capacity by 2030 - about the same as the country’s current coal-fired capacity and nearly as much as the total current installed capacity in the US energy sector.

### Costs

Meeting climate reduction goals in the INDC will cost China over US\$6.6 trillion (41 trillion yuan), the country’s lead negotiator at UN climate talks said last week at a meeting with US counterparts.

This would involve heavy costs for energy-intensive industries, but could also provide huge economic benefits to sectors such as renewables, energy efficient equipment, environmental technologies, low-carbon vehicles and power grid infrastructure.

Following the publication of the INDC, other large emitters such as the US and the EU are likely to crank up the pressure on China to set up a robust rules-based system through common international accounting rules and reporting requirements, something that the central government in Beijing has rejected so far. 📧

# 中国与欧盟签署 里程碑式气候变化协议

中国与欧盟签署双边气候协议，双方都希望为年底的巴黎气候峰会扫清阻碍。

弗罗加·安东尼 / 汤姆林森·谢恩 / 海因·延斯

周一结束的中欧峰会上，双方深化了在气候变化问题上的合作。此前，中美双方在该问题上的外交对话更为密切。

在昨日晚些时候发布的一份联合声明中，中国和欧盟强调了在今年年底召开的巴黎气候大会上达成一项具有法律约束力的协议的重要性，并注意各自宣布的到 2030 年的应对气候变化强化行动。

欧盟承诺到 2030 年实现在 1990 年的基础上至少减排 40% 的目标；中国则有望在未来几天提交国家气候规划（即国家自主贡献，INDC）。

去年中美达成的气候协议备受瞩目，内容包括 11 月签署的《中美气候变化联合声明》。在这一文件中，奥巴马总统宣布了美国计划于 2025 年实现在 2005 年基础上减排 26%-28% 的全经济减排目标。中国宣布计划在 2030 年左右使二氧化碳排放达到峰值，并计划到 2030 年将非化石能源占一次能源消费比重提高到 20% 左右。

去年 12 月在秘鲁举行的联合国

气候谈判上，中美进一步加深的合作成为亮点，而欧盟却被晾到一边。在此背景下，昨天中欧低碳城市伙伴关系的建立以及中欧碳排放交易能力建设合作项目的拓展，标志着中欧气候变化合作整体向前迈进了一大步。

就在中欧峰会前夕，查塔姆研究所和 E3G 联合撰文。文中回顾了中欧在资源和低碳发展上的合约，呼吁双方重新展开合作，在将新的政治现状纳入考量的同时推动气候、环境和资源日程。

“中国可以帮助欧盟实现这一调整，办法就是进一步弄清欧盟能够在哪些领域助其加速国内经济和市场改革。”

2007 年，查塔姆研究所的另一篇论文《变化中的气候》呼吁深化中欧在下列领域的合作，包括清洁能源领域的长期战略性研究、共同制定各项标准（如能效）、绿色贸易和投资自由化等，目的是让中欧经济关系在事实上成为全球清洁能源转型的引擎。

## 紧张因素

尽管中国国内可再生能源部门的清洁能源市场整合取得了不小的进展，但中欧讨论的许多领域还没有在双边关系的政治实践中生根发芽，而且这些领域自 2007 年之后已经有所衰落和变化。

欧盟限制中国低价太阳能光伏板和节能灯泡的进口更是给双方清洁能源贸易的互利关系蒙上了一层阴影，中国在 2009 年哥本哈根气候峰会上的立场也引发了欧盟对于其气候行动决心的质疑。

2008 年的经济危机改变了全球政治动态，使得欧盟成员国间的合作更加困难，同时中国注重美国的

对外政策似乎也将中欧关系推到了次要位置。

然而，查塔姆研究所上周发表的论文指出，《变化中的气候》一文中所确认的中欧之间相互依存的关系依然重要，如果双方想要保护自身的核心利益，就必须对双边关系有一个新的认识。

### 优先事项

随着中国谋求经济转型的进程，中国与欧盟战略关系的重要性日益提升，中国在全球市场的运营能力一部分也取决于欧盟如何看待中国的行动。与此类似，由于欧盟成员国

在能源安全、气候变化和资源短缺上的优先事项分歧太大，因此，欧盟仅凭与美国的排他关系也无法实现自身在全球的目标。

欧盟委员会曾经说过，欧盟的内部政策应该“大事大办、小事小办”。对外关系中，这一原则也同样适用。中国可以帮助欧盟实现这一调整，办法就是进一步弄清欧盟能够在哪些领域助其加速国内经济和市场改革。查塔姆研究所的论文指出了一些优先领域，比如城镇化、国际资源治理和绿色增长。

本周发表的各项宣言表明，中欧有意愿超越以往的联合声明，深化在低碳发展领域的技术合作。

中欧共同为建立控制气候变化的强有力机制而努力，将为12月在巴黎达成一项有效协议注入了新的活力和希望。

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# China and EU sign landmark climate deal

A China-EU climate agreement signed late Monday could help pave the way to a GHG-reduction deal in Paris

Antony Froggatt / Shane Tomlinson / Jens Hein



*China and the EU emphasised the importance of working towards a legally binding agreement and their intended contributions to enhance climate actions by 2030*

The EU-China summit, which ended Monday, has deepened cooperation between the two sides on climate change issues, following a period during which Beijing appeared more occupied with diplomatic engagement with Washington than Brussels.

In a joint statement made late yesterday, China and the EU emphasised the importance of working towards a legally binding agreement at UN climate talks in Paris later this year and their intended contributions to enhance climate actions by 2030.

The EU has already made a commitment to reduce emissions from a 1990 baseline of at least 40% by 2030 and China is expected to submit its national climate plan (intended nationally determined contribution, or INDC)

over the next few days.

Last year was dominated by agreements between China and the US, including the landmark joint statement in November in which President Obama announced economy-wide targets to reduce emissions by 26-28% below the 2005 level by 2025. In that same announcement, China stated its intention to achieve peak CO<sub>2</sub> emissions by no later than 2030, and to raise the share of non-fossil fuels in primary energy consumption to 20% by that time.

UN climate talks in Peru last December were characterised by further close cooperation between the US and China, often to the exclusion of the EU. Against this backdrop, the launch announced yesterday of an EU-China low-carbon cities partnership and expansion of the EU-China capacity building project for carbon markets is an overall step forward.

A new paper by Chatham House and E3G, published on the eve of the EU-China summit, reviews engagement between China and the EU on resources and low-carbon development, and argues for a rebooted relationship that pushes forward climate, environment and resource agendas while taking into account new political realities.

In 2007, a separate Chatham House paper, *Changing Climates*, called for deeper cooperation between China and the EU in a range of areas, including strategic and long-term clean energy research, joint setting of standards (such as in energy efficiency), green trade and investment liberalisation. The aim was to make the EU-China economic relationship the de facto engine of global clean energy transformation.

### Tensions

While progress has been made on clean energy market integration in China's domestic renewables sector, many of the mooted areas of cooperation have yet to take root amid the practical politics of EU-Chinese relations, which have ebbed and flowed considerably since 2007.

The mutual benefits of trade in clean energy have been overshadowed by the EU's complaints of cheap Chinese exports of solar panels and efficient light bulbs, and China's position at the Copenhagen Climate Summit in 2009 raised doubts in Europe about its commitment to climate action.

The economic crisis of 2008 changed global political dynamics and made coordination between EU member states more challenging, while China's foreign policy focus on the US has at times seemed to relegate EU-China relations to a second-tier partnership.

However, the paper published last week argues that the interdependencies identified in *Changing Climate* are as important as ever, and that Europe and China need to forge a new understanding of their relationship if they are to preserve their core interests.

### Priorities

China's strategic relationship with the EU is increasingly important as it pursues its economic transition, while its ability to operate in global markets depends partly on

European views of its actions. Similarly, the EU is unable to attain its goals through an exclusive partnership with the US, because the priorities of its member states are too divergent on energy security, climate change and resource scarcity.

The European Commission has said domestic EU policy should be "bigger on big things and smaller on small things" – a principle that should also be applied to external relations. China can help this adjustment by being clearer on the areas in which partnership with the EU can help accelerate its domestic economic and market reforms. The paper suggests areas for prioritisation, such as urbanisation, international resource governance and green growth.

The announcements made this week demonstrate real intent to deepen technical cooperation on low-carbon development. By working together towards a strong regime to control climate change, the EU and China bring renewed focus and hope to securing an effective agreement in Paris in December. 📧

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# 抵御气候变化 关乎人类健康

报告认为过去半个世纪的主要医疗健康成就都可能  
会被气候变化抹杀，应对气候变化刻不容缓。

约翰·麦克加里蒂

医学期刊《柳叶刀》出版的一份报告指出，日益严重的气候变暖将会在未来对人类健康和医疗体系造成毁灭性打击。要想避免这一情况，各国领导就必须达成一致，大幅削减温室气体排放，同时加大对受气候变化影响国家的财政帮扶。报告认为过去半个世纪的主要医疗健康成就都可能会被气候变化抹杀，这一说法在12月巴黎气候峰会前引发了广泛的关注。那么极端气候将会如何影响人类健康？对此各国政府又该如何应对？来自伦敦大学学院（University College London）的安东尼·科斯特洛（Anthony Costello）教授和清华大学的宫鹏教授对此作出详尽解答。

**中外对话：**发布这份报告的主要动因是什么？您希望这份报告对决策者产生什么样的影响？

**安东尼·科斯特洛：**气候变化对全球健康有着深远影响，可令人惊讶的是，许多政治家对此却全然不知。我们希望在巴黎气候峰会上

将气候变化上升到健康问题的高度，不只是讨论气候变化引发疾病的问题以及相应的代价，同样也要让人们了解减轻污染和使用清洁能源（比如低碳汽车）可能为全球健康带来的积极影响。其中我们最想表明的是，应对全球气候变化将成为造福后代健康的绝佳机会之一。

**中外对话：**气候变化对健康生活

造成的威胁有多大？在何种情况下人类生命会受到威胁？

**安东尼·科斯特洛：**国际气候变化委员会（IPCC）指出，按照我们目前的温室气体排放状况来看，到本世纪末，全球气温最高将上升五摄氏度。这样的结果将是灾难性的，随之而来的12倍的热浪更是不堪设想。想想上周巴基斯坦的热浪，还有



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气候变化还会带来更多的洪水、干旱和风暴。间接的影响也不容小视，如传染病病毒变异、空气污染、食物短缺和营养不良、非自愿移民和迁徙以及武装冲突

最近在印度造成上千人死亡的 50 摄氏度极端高温天气吧。2003 年欧洲西北部和 2010 年俄罗斯的高温都证明，热浪同样会影响到发达国家的弱势群体。除了极端高温，气候变化还会带来更多的洪水、干旱和风暴。间接的影响也不容小视，如传染病病毒变异、空气污染、食物短缺和营养不良、非自愿移民和迁徙以及武装冲突。以上种种状况还会对精神健康产生重大影响。反之相对稳定的气候系统和更加清洁的环境则会大大降低忧虑情绪，提升幸福感。

**中外对话：**关于温室气体减排，您对决策者有何建议？

**安东尼·科斯特洛：**无论从气候还是从健康角度来看，煤炭都是首要敌人，因此我们必须迅速停止煤炭消费。巴黎气候峰会将是近 20 年来该领域最重要的契机，因此我

们希望与会各方明确表态，争取对煤炭实行有效定价。联合国各成员国也应削减化石燃料补贴，据国际货币基金组织估算，每年此类补贴造成的经济（及潜在健康）成本高达 5.3 万亿美元。但解决气候变化问题的花费只有上述数字的五分之一。同时，相比较于可再生能源，“谁污染谁付费”的方式也将进一步削弱化石燃料的价格优势。越来越多的私有企业高层也积极参与进来，尤其是保险机构，因为他们也逐渐意识到了气候变化对其业务的影响。

**中外对话：**日益变化的气候环境以及化石燃料的使用可能会对中国健康问题产生重大影响。您能为我们解释一下具体的影响以及中国中央政府对此的回应吗？

**宫鹏：**目前，煤炭和其他运输燃料对健康的影响都得到了有效的记

录，但可能还只是局限在富裕发达的城市，而火电厂和煤炭矿井较多的内陆贫困偏远地区尚未在这一方面建立起有效的数据。使用化石燃料会导致越来越多的极端天气，其中偏远贫困地区受到的影响尤为明显。今年早些时候，中国的气象学家对自然资源使用不当提出了警告，这也让中国的领导人对于气候和健康问题有了深入的了解和认识。气候变化意味着原本短缺的水资源供应问题会更加严重，而高温和洪水则会侵蚀农田，对农业生产造成严重影响。气候变化还会加重农村人口向城市转移，而很多城市已经受到了海平面上升的影响。但就其本身对洪水威胁以及极端温度的应对能力来看，城市还是要比农村地区更安全一些。

约翰·麦克加里蒂，中外对话副主编

# Combating climate change is good for our health

Climate change could do major harm to gains in human health, but taking strong action now will have huge benefits, according to a new study. Two of the report's authors spoke to *chinadialogue*

John McGarrity

A rapidly warming climate will wreak a huge toll on human health and healthcare systems unless politicians can agree big cuts in greenhouse gases and funnel finance to the most vulnerable countries, says a report commissioned by medical journal *The Lancet*. The report, which is timed to focus minds ahead of December's UN climate summit in Paris, warns that many of the major gains made in the last 50 years in health could be wiped out by runaway climate change. Professor Anthony Costello of University College London and Professor Peng Gong from Beijing's Tsinghua University explain how extreme weather will harm human health and how governments should respond.

**chinadialogue:** What has been the main motivation for the report and what do you hope the impact on policymakers will be?

**Anthony Costello:** Climate change has huge implications for global health and it's amazing how many politicians haven't 'got' it so far. We want to raise the profile of climate change as a health issue at the Paris climate summit, not just by talking about the huge costs in terms of lives and ill

health from climate change, but also the positive impacts on health of less pollution and cleaner technology such as low-carbon vehicles. One of our main messages is that tackling climate change represents one of the greatest opportunities to benefit human health for generations to come.

**chinadialogue:** How serious is the risk posed by climate change to well-being. In what circumstances are lives at risk?

**Anthony Costello:** The International Panel on Climate Change (IPCC) warns that the current rate we are churning out greenhouse emissions (GHGs) means temperatures could rise by up to 5C this century. We really don't want to go there. It would be nothing less than catastrophic and could trigger a 12-fold increase in heatwaves, which is a major killer. You only have to look at last week's heatwave in Pakistan and the recent one in India, where many thousands have died in temperatures nearing 50C. Heatwaves in north-western Europe in 2003 and in Russia in 2010 also show the terrible effects these events can have on vulnerable populations in developed countries

The International Panel on Climate Change (IPCC) warns that the current rate we are churning out greenhouse emissions (GHGs) means temperatures could rise by up to 5C this century. We really don't want to go there.

as well. Besides extremely hot weather, the other direct events related to climate change will be an increase in floods, droughts and storms. Indirect consequences, which would likely be huge, will come from changes in infectious disease patterns, air pollution, food insecurity and malnutrition, involuntary migration, displacement of people and armed conflicts. These events also have a major impact on mental health while, on the flip side, relatively stable weather systems and cleaner environments will mean less anxiety and a greater sense of wellbeing.

**chinadialogue: What do you recommend that policymakers should do to achieve big cuts in GHG emissions?**

**Anthony Costello:** Coal is the main enemy from both a climate and health perspective, and is something we need to phase out rapidly. The Paris climate conference is the most important of its kind for 20 years and we need to see strong signals from the summit that will put an effective price on carbon. Countries at the UN will also need to agree to withdraw hundreds of billions of dollars in subsidies for fossil fuels, which the IMF reckons has a total economic cost (including impacts on health) of US\$5.3 trillion (32.9 trillion yuan) per year. The cost of dealing with climate change is one-fifth of that figure, and only a ‘polluter must pay’ approach will mean that fossil fuels are increasingly priced out by renewables. More senior executives in the private sector are pushing this, particularly insurers, as

they increasingly understand the risks to their businesses.

**chinadialogue: A changing climate, and the use of fossil fuels, will likely have huge health impacts on China. Can you explain what these are and how this resonates with central government?**

**Peng Gong:** The health impacts of the use of coal and transport fuels have been well documented, although perhaps more so in prosperous cities than the poorer, mainly rural hinterlands where many coal-fired power stations and mines are built. The consequences of fossil fuel use on the climate will mean increasing extremes in weather, which will mainly be felt in poor rural areas. China’s leadership is fully aware of the health aspects, and comments from the country’s top meteorologist earlier this year warned of serious impacts on natural resources. Climate change could mean that scarce water supplies dwindle more rapidly, while searing heat and increased likelihood of floods will impact crop yields and the productivity of rural workers. Climate change could also speed up the huge wave of rural migration to cities, many of which are increasingly vulnerable to rising sea levels. Although it should be said, in the event of a warmer world, rural China – with its own risks of flooding and being less equipped to deal with extremes of temperatures – may be more a dangerous place to be than urban areas. ☺

*John McGarrity is chinadialogue’s deputy editor based in London.*

# 对话：《卫报》主编的气候战役

英国《卫报》发动了前所未有的“将化石燃料留在地下”的气候行动，主编艾伦·拉斯布里杰向中外对话讲述了其中的缘由。

伊莎贝尔·希尔顿

2015年5月末，担任《卫报》主编达20年的艾伦·拉斯布里杰即将离职。自1821年《卫报》编辑部在曼彻斯特成立以来，这份日报从未中断过发行，它的日发行量近20万份，网络版每月独立用户访问量达3,600万。

艾伦·拉斯布里杰担任主编期间，《卫报》设立了在线环境专栏，每个月都能迎来世界各地数百万的读者。2014年12月下旬，拉斯布里杰决定利用其任期最后六个月的时间打一场气候战役。除在报纸和网络上发布大量关于气候变化的报道外，《卫报》还发起一项活动，劝说惠康基金会和盖茨基金会这两个世界上最大的慈善基金会撤出对化石燃料领域的投资。

目前，两家基金会均尚未同意撤回其化石燃料领域的投资，但《卫报》的这项活动已得到20万人的支持，并契合了世界范围内不断壮大的将化石燃料留在地下的运动。《卫报》还将其内部讨论的播客发布出来，解释为何选择这些目标，以及活动的目的是什么。

艾伦·拉斯布里杰最近接受中



《卫报》主编艾伦·拉斯布里杰

外对话采访，讲述了他为何选择气候变化，以及为何选择发起化石燃料领域的撤资活动作为自己的最后一项工作。

他说：“有一个念头总萦绕在我的脑海中，尽管我们有着非常优秀的环境报道团队和网络平台，但是对于这样一个或许非常重要的新闻事件，却根本没有记者来恰如其分地进行报道。我不希望自己离开编辑的岗位以后，就像人们常说的那样，有一天孙儿们坐在我的腿上，问我，你以前在一家大报社做编辑，你当时知道这个问题很重要，那么你

做了什么？我不希望回头看时，感到自己本应做更多的事情，但却没有做到。”

美国气候活动家比尔·麦吉本告诉他，现在这已经不再只是环境问题，而是关乎政治和经济，拉斯布里杰对自己职业生涯里的最后一个活动有了具体的想法。在巴黎气候会谈即将召开的这一年，报社同仁就这项活动的核心议题展开了辩论。议题应该具备参与性强、通俗易懂的特点。为了更加清晰地传达自己在这问题上的立场，最后他们选定发起化石燃料领域撤资运动这一议题。

研究显示，化石燃料领域的撤资现象产生的经济影响有好有坏；对此，拉斯布里杰表示认可，但他相信，不论如何，人们围绕撤资问题的讨论已经超越了道德层面。

他解释说：“一开始，我把它看做是一场道德领域的运动。但实际上，考虑到它所引发的变革，我觉得它已经超出了道德的范畴。”他要做的第一件事就是改变自己管理的机构——卫报传媒集团的投资政策。

“我们把想法告诉集团董事会，他们都是生意人，从未真正考虑过这个问题。他们把投资顾问召集起来，所有人听到后都倒吸了一口凉气，然后去做调查。”

再次讨论时，我们发现从务实的角度展开财务讨论才最有说服力。化石燃料公司并未获得过高额回报，投资顾问发现搁浅资产的观点令人信服。这种观点指出，如果要将全球平均气温升高控制在2摄氏度内，那么大型石油、天然气和煤炭公司拥有的化石燃料储备大部分都不能再被使用。这些在资产负债表上被列为资产的矿产将变得毫无价值。集团的投资顾问可不想留着即将失去价值的资产。

### 搁浅资产

拉斯布里杰说：“很多央行行长都开始担心搁置资产问题，比如马克·卡尼（英格兰银行行长）。你或许认为，宣布撤出投资的都是些不太重要的机构，比如洛克菲勒兄弟基金会、斯坦福大学、哈佛大学和卫报等。但是，如果人们意识到这就像次贷危机一样，关于钱的讨论就会开始转向。如果人们确定80%的

煤炭都不能被开发，那么这就会给经济带来巨大的泡沫风险。而这个风险是你绝对不想置身其中的。”

尽管卫报的活动未对不同的化石燃料加以区分，但拉斯布里杰认为，活动还是成功地使气候变化再次成为公众辩论的话题。

他说：“我已经记不清在美国做过多少次采访了。报纸竟然会选择站队，他们都觉得很有意思。我能预见各方对此可能提出的种种批评，而这是一件大多数记者从未尝试过的事情。”

他认为，对于读者来说，气候变化的报道方式缺少吸引力。“人们对这个问题非常感兴趣，只是新闻报道的方式还不理想。”卫报发起的这项活动激起了报界和读者的热情，但拉斯布里杰表示：气候报道从来都不是一个能够让“新闻业倍感自豪的领域。”

### 反驳

他说：“人们对此很感兴趣，但是我们做这件事的方式还不够好。”成千上万人签署了请愿书，甚至还有人自发地给两个基金会写信，讲述他们的担忧。拉斯布里杰曾与惠康基金会和盖茨基金会私下交流，但并未期盼它们会尽早撤资。

“大多数基金会都设有管理委员会、财政委员会和捐赠基金委员会，他们必须按部就班地走完这些过场。”还有其他反驳的声音需要注意，如可以通过加强参与来更好地应对气候变化；化石燃料虽然不好，但是投资获得的收入却能用于有益的方面。拉斯布里杰对这两种观点都持怀疑态度。

“乔纳森·鲍里特（英国著名环保人士）过去四十年里一直跟化石燃料公司打交道，他表示对此没有什么可说的。任何一个慈善基金都应该思考，他们的慈善事业是否因为他们投资化石燃料而受到损害。”

### 成功的标志

如果各机构都不投资，那么如何来衡量成功与否？

拉斯布里杰说：“在某种意义上讲，我们已经成功了。”他列举了一些高层的反馈：

“阿尔·戈尔认为，我们已经取得了一些成就，只是现在还不明显。我跟坎特伯雷大主教会面，讨论教会撤资事宜，除了关于气候的通谕，教皇可能还会说一些关于撤资的事情。德斯蒙德·图图将其与（反对）种族隔离相提并论。尼克·斯特恩（著名气候经济学家）认为这触及到国家资助问题。”他认为，这项活动会像滚雪球一样，影响越来越大，并将有助于政治领导人制定有效的政策。

他认为，这些进展积累起来将推动撤资活动到达转折点。

一些知名的基金会已经放弃了煤炭投资，其中就有世界上最大的挪威主权基金以及靠标准石油公司的财富成立的洛克菲勒兄弟基金。私有部门的金融机构也感到撤回投资的压力在不断增加。

拉斯布里杰说：“成功不过如此，而这只是其中的一个方面。”

# Guardian editor on his climate crusade

The *Guardian* newspaper has waged an unprecedented campaign to keep fossil fuels “in the ground” as part of the fight against climate change. The paper’s editor Alan Rusbridger tells chinadialogue about the reasons why

Isabel Hilton

At the end of May 2015, the editor-in-chief of The Guardian newspaper, Alan Rusbridger, will step down after 20 years in the post. The Guardian is a UK daily newspaper that has published continuously since it was founded, in Manchester, in 1821. It enjoys a daily print circulation of just under 200,000 and a monthly online readership of 36 million unique users.

Under Alan Rusbridger’s editorship, it has built an online environment section that attracts millions of readers from around the world every month, and, in late December 2014, Rusbridger decided to devote much of his last six months in the job to a campaign on climate change. In addition to publishing extensively on climate change in the newspaper and online, The Guardian has launched a campaign to persuade two of the world’s biggest charitable foundations, the Wellcome Trust and the Gates Foundation to move their investments out of fossil fuels.

Neither foundation has – so far – agreed to withdraw from fossil fuel investments, but The Guardian’s campaign has gathered 200,000 supporters so far and tapped into the burgeoning global movement to keep fossil fuels in the ground. The paper is also publishing podcasts about its internal discussions that seek to explain why these targets were chosen and what the campaign hopes to achieve.

Alan Rusbridger sat down recently with chinadialogue to reflect on why he chose climate change and this divestment campaign as his legacy.

“It has always nagged away in the back of my mind that although we have an incredibly good environment team and a fantastic website, if this is the most important story, then

no journalist on earth is doing justice to it. I didn’t want to stop being editor feeling that the proverbial grandchildren might sit on my knee and say, you used to edit an important newspaper, you knew this was important, what did you do? I didn’t want to look back and think that I should have done more, but I just didn’t,” he said.

When the US climate campaigner Bill McKibben told him that this was no longer a story about environment, but one about politics and economics, Rusbridger’s thoughts crystallised around one last campaign. The newspaper’s staff debated which issue should be at the heart of it, in the year of the Paris climate summit. It needed to be engaging and easy to understand. They settled on divestment, for the clarity of the message.

Rusbridger agrees that the research on divestment shows, at best, mixed economic results, but he believes, nevertheless, that the case for divestment is more than a moral argument.

“I began by thinking it was a moral campaign, but actually I think it’s better than that, in terms of what it changes,” he explained. The first thing he had to change was the investment policy of his own organisation, the Guardian Media Group (GMG).

“We talked to the GMG board: they are a bunch of business people who haven’t really thought about this. They called their investment advisors in, and everyone sucked their teeth, then went away to look at it.”

When the discussion resumed, it was the pragmatic financial arguments that proved persuasive: fossil fuel companies had not been giving great returns, and the

investment advisers found the stranded assets argument convincing: this says that if the rise in global average temperatures is to be kept to 2C, most of the fossil reserves owned by major oil, gas and coal companies cannot be used. Their reserves, which are listed on their balance sheets as assets, are therefore effectively worthless. The GMG's investment advisers did not want to be left holding assets that were losing their value.

### Stranded assets

“Lots of central bankers, including Mark Carney, (the governor of the Bank of England) are already concerned about stranded assets,” said Rusbridger. “You could argue that none of the organisations that have announced divestment – Rockefeller Brothers Fund, Stanford University, Harvard University or The Guardian – is particularly significant. But if people realise that this is like sub-prime, the argument about the money begins to shift. If people decided that 80% of the coal, for instance, can never be burned, that’s a huge bubble that you don’t want to be in.”

Although The Guardian’s campaign makes no distinction between fossil fuels, Rusbridger argues that it has been successful in bringing climate change back into public debate.

“I have lost count of the number of interviews I have done in the US,” he said. “They say this is the most interesting thing they have seen. They are interested that a newspaper would take sides. I can see all the possible criticisms, but it is doing something that lots of other journalists have not managed to do.”

Journalism, he believes, has failed to cover climate change engagingly. “There is huge interest. But there is something about the way that journalism is doing it that hasn’t succeeded.” The campaign evoked enthusiasm in the newspaper and among the readers, but the history of climate coverage is not, Rusbridger says, “journalism’s finest hour.”

### Counter arguments

“People are terribly passionate about this, but the way we were doing it was not quite clicking,” he said. Of the hundreds of thousands who have signed a petition, some have volunteered to be more active, writing letters to the

two organisations and sharing their concerns. Rusbridger has had private discussions with both the Wellcome Trust and the Gates Foundation, but does not anticipate an early divestment from either.

“Most places have governance committees and finance committees and endowment committees and they will all have to go through the cogs.” There are counter-arguments to deal with – that more is achieved by engagement, and that although fossil fuels are bad, the revenue the investments produce is put to good use. Rusbridger is sceptical about both.

“Jonathon Porritt (a prominent British environmentalist) has been engaging with fossil fuel companies for 40 years and he says he has nothing to show for it. And any philanthropic foundation must think about whether the good they do is being undermined by the impact of the fossil fuels that they invest in.”

### Signs of success?

But if organisations don’t invest, what is the measure of success?

“In a way we have succeeded already,” Rusbridger says, and lists a series of high-level responses:

“Al Gore thinks this is achieving something not seen so far. I am meeting the Archbishop of Canterbury to discuss church divestment and the Pope may well say something about divestment in addition to his climate encyclical. Desmond Tutu is comparing it to [the campaign against] apartheid. [Leading climate economist] Nick Stern thinks it plays right into the issues of the subsidies.” The issue, he believes, could snowball and help political leaders to come up with effective policy.

Cumulatively, he believes, these various developments could mean the push for fossil fuel divestment reaches a tipping point.

Already, some high-profile funds have ditched coal investments, including Norway’s sovereign wealth fund, the world’s largest, and the Rockefeller Brothers Fund, built with profits from the Standard Oil fortune. Pressure is also ramping up on private sector financial institutions to cut the cord.

“Success,” says Rusbridger, “would look like that, and this would be one element in it.” 📧

*Isabel Hilton is CEO and Editor of chinadialogue.*

# 奥巴马政府减排目标恐受阻

奥巴马的煤炭限制措施及其碳排放量目标均受到共和党的挑战。

穆·素彬



上至联邦、下至各州的共和党人以及参与共和党总统候选人竞争的人们都在竞相抨击奥巴马的温室气体减排计划

美国三月底向联合国提交的温室气体减排目标遭到共和党人的持续反对。当奥巴马政府准备对各项旨在控制燃煤电站的法规进行收尾时，俄克拉荷马州却拒绝执行即将施行的法规，并向减排计划发起了新一轮挑战。

上周，俄克拉荷马州共和党州长玛丽·法琳签署了行政命令，禁止该州环境质量局执行由奥巴马总统

提出的即将在未来几个月生效的清洁能源计划。

“我不会提交(任何一项执行计划)，俄克拉荷马州也不会执行这样一项明显超出了总统权限的计划。”法琳在行政命令中的此番言论表明，资源丰富、并且由共和党牢牢把持的俄克拉荷马州在2016年总统和国会大选前将坚决反对白宫的这项计划。

清洁能源计划的目标是到2030

年将电厂的污染排放在2005年的基础上减少30%。该计划是美国兑现其承诺，到2025年将温室气体排放在2005年的基础上减少28%的核心要素。

上至联邦、下至各州的共和党人以及参与共和党总统候选人竞争的人们都在竞相抨击奥巴马的温室气体减排计划。一些州和重工业组成的联盟试图通过法律的手段来抵制拟定中的减排法规，这一举动给奥巴马政府带来了更加实质性的挑战。

该联盟由西弗吉尼亚州及穆雷能源公司等产煤州和煤炭生产企业发起，俄克拉荷马州是该联盟的成员州之一。除了俄克拉荷马州州长签署的行政命令之外，联盟还先发制人，针对那些尚未制定的法规向法院提起了诉讼。

## 法庭之争

该案即将于四月中旬进入法庭辩论阶段。与此同时，美国哥伦比亚特区联邦巡回上诉法院的法官却似乎倾向于在奥巴马政府官方出台清

洁空气法规之前驳回此案。

然而，由共和党总统指定的三名法官的立场目前尚不明朗。如果他们驳回了联盟的诉求，那么最终法案颁布后，联盟很有可能再次提起上诉。

此案的关键问题在于美国环境保护署（EPA）是否有权对温室气体排放进行监管。气候变化领域的专家认为，多年来这个问题的答案一直都很明确。“美国最高法院曾三次裁定，温室气体排放属于《清洁空气法案》的管辖范畴。”来自乔治城大学气候中心的加布·佩西尼亚克说道。

减排计划的反对者认为，该法案并不具备对电厂温室气体排放进行监管的具体权限。令奥巴马难堪的是，其昔日导师——哈佛大学法学院的劳伦斯·特莱布教授不仅为上述联盟组织出谋划策，还将议定中的清洁能源计划称为是一项“违

宪夺权”的计划。

对于反对该计划的人来说，通过法律程序叫停该计划似乎比通过国会决议的可能性更大。参众两院的共和党人士提出要么通过立法阻止清洁能源计划的执行，要么允许各州不履行计划要求。然而他们没有足够的票数来推翻总统的否决权。

因此，（代表产煤州肯塔基州的）参议院共和党多数派领袖明奇·麦康奈尔（Mitch McConnell）如今希望发动各州的力量抵制这项计划。三月份，他致函 50 位州长，鼓动他们拒绝执行环保署的碳排放限额战略。俄克拉荷马州州长法琳便是首个响应其号召的州长。

### 政治抨击

“肯定会有一些哗众取宠的州和政界人士试图阻止美国政府推进清洁能源计划。但是在政治抨击告一

段落之后，大部分人还是会采取措施执行减排计划。”芝加哥环境法律与政策中心的霍华德·勒纳说道。霍华德一直在密切关注附近的俄亥俄州、爱荷华州等中西部各州之间的党派辩论，这几个州将对明年的大选产生决定性影响。

毕竟，公开对环保署的计划表示支持的州与参与诉讼的州从数量上来看一样庞大。北卡罗来纳州虽未加入任何阵营，但其下议院不顾右翼茶党共和党人的强烈反对，近期通过了一项环保署法案的执行行动方案。

俄克拉荷马州若想逃避联邦法规也并非轻而易举。行政法规一旦颁布实施，那么拒绝出台相应计划落实联邦标准的州将直接受到环保署的监管。

穆素彬，美国华盛顿记者

# Coal cap battle threatens US CO<sup>2</sup> target

Republicans are intensifying their fight against President Obama's curbs on coal and his executive action to regulate carbon emissions

Sabine Muscat

As the Obama administration puts the final touches to regulations that could curb coal-fired power stations, Oklahoma is refusing to implement the future legislation, the latest salvo in the ongoing domestic attack on the US's greenhouse gas reduction target submitted to the UN in late March.

Last week, the state's Republican Governor Mary Fallin signed an executive order barring its own Department of Environmental Quality from implementing the president's Clean Power Plan that is expected within the next few months.

"I will not submit [an implementation plan] to ensure Oklahoma's compliance with such a clear overreach of executive authority," the document says, pitching the resource-rich and solidly Republican state against the White House ahead of the presidential and congressional elections in 2016.

The Clean Power Plan, which aims to reduce pollution from power plants by 30% below 2005 levels by 2030, is a central element of the US target to reduce greenhouse gas by 28% from 2005 levels by 2025.

Republican politicians at the federal and state level as well as contenders for the party's presidential nomination

are trying to outdo each other in attacking Barack Obama's efforts to regulate greenhouse gases. But the more substantive challenge comes from a coalition of states and heavy industry intent on fighting the proposed regulations through the court system.

The state of Oklahoma is part of this coalition led by the coal state of West Virginia and the coal producer Murray Energy Corporation. As with the governor's executive order, this coalition acted preemptively, filing a lawsuit against regulations that don't yet exist.

## Court battle

When the case was up for argument in mid-April, the judges at the US Circuit Court of Appeals for the District of Columbia seemed inclined to dismiss a challenge to the clean air regulations before they are officially released by the Obama administration.

It was not clear, however, where the three judges on the panel, all of whom had been appointed by Republican presidents, stood on the issue. Should they dismiss the case, the plaintiffs are likely to return after the final rules are published.

I will not submit [an implementation plan] to ensure Oklahoma's compliance with such a clear overreach of executive authority.

—The state's Republican Governor Mary Fallin

Central to the case is the question of whether the Environment Protection Agency (EPA) has the authority to regulate greenhouse gas emissions. To experts in the climate change community, the answer to that has been clear for many years: “The Supreme Court has ruled three times that greenhouse gases can be regulated under the Clean Air Act,” said Gabe Pacyniak from the Georgetown Climate Center.

Opponents of executive action contend that this does not include the specific authority to regulate the greenhouse gas emissions of power plants. Embarrassingly for Obama, his former mentor, the Harvard Law School professor Laurence Tribe, is giving legal advice to the plaintiffs and has called the proposed regulations an “unconstitutional power grab.”

For the challengers, the legal route looks more promising than the prospect of Congressional action. Republicans in the House and Senate have proposed legislation to either halt the Clean Power Plan’s implementation or to allow states to opt out of the rule’s requirements, but they lack the votes to overturn a presidential veto.

This explains why the Senate’s Republican majority leader Mitch McConnell (who represents the coal producing state Kentucky) now hopes to foment resistance at the state level. In March he sent a letter to all 50 governors, encouraging them to decline to implement a strategy to meet the EPA’s carbon limits. Oklahoma’s Fallin was the

first governor to follow this suggestion.

### Political bluster

“There will be states and politicians who grandstand and try to stop the government from moving forward,” says Howard Learner of the Chicago-based Environmental Law & Policy Center, who follows the partisan debate in nearby Midwestern states such as Ohio and Iowa that will play a decisive role in next year’s elections. “But after the political blustering is over, most will take steps to implement the regulation.”

After all, the number of states that openly support the EPA’s plans is equally big as the number of states involved in the lawsuit. North Carolina has joined neither camp, but the lower chamber of the state’s congress recently passed an action plan for implementing the expected EPA regulations in the teeth of fierce resistance from right-wing Tea Party Republicans.

As for Oklahoma, escaping the reach of federal rules might not be so easy. If the executive’s regulations are promulgated and upheld, states that refuse to write their own plan to meet the federal standards shall be regulated directly by the EPA. 🌀

*Sabine Muscat is a journalist based in Washington DC.*

# 中国试行环境审计 以追究官员环境责任

环境污染破坏要对官员进行终身追责，但问题是追责如何量化。

张春

为了加大环境治理力度，中国今年1月实施的新环保法，和4月发布的“水十条”（水污染专项治理规划），都明确了环境污染破坏要对官员进行终身追责。问题是：怎么追？

官员在任期间，环境变好还是变坏了？生态资源增加了还是减少了？企业排污是改善还是恶化？这些都是追责的内容。

“要追责，就要把这些都量化，白纸黑字记录在案，等官员卸任了，将到任前和卸任后情况一比，就知道环境是恶化还是变好。”中国环境学会环境审计专业委员会副主任孙兴华对中外对对话说。

这种办法，就是环境审计——对环境治理成效、环境组织管理水平等进行审计。审计的结果，就是给

离任的官员出具一个“生态资源离任审计表”，用这张表来追究官员的环境责任。而这一办法，正开始在中国试点。

## 终身责任制倒逼环境审计探索

自然资源核算体系，在国际上已经进行了几十年的研究，中国是从上世纪90年代才开始萌芽，却一直不成体系。目前，山东、贵州等省份对编制自然资源资产负债表进行了探索，但国家尚未出台整体规划，总体还停留在分散的、自发的研究状态。

但是终身责任制已经开始推行，怎么确定责任却是个问题。“官员离

任的时候生态资源是什么状况是可以查到的，但是上任的时候呢？”孙兴华说。

新发布的水污染专项治理计划“水十条”就强调污染的可量化性。环保部污防司副巡视员陈永清对媒体说，水十条共计238项措施，“所有措施都是可量化、可考核、可追责的。”

但没有审计准则，没有环境核算办法，也没有环境会计准则，如何量化、核算，还有待探索。今年三月初，根据环保部下发的《关于开展政府环境审计试点工作的通知》，兰州成为了全国第一个环境审计试点城市。

这个试点，源于环保部环境规划院副院长王金南2014年牵头完成了一个项目报告，特别研究政府环境审计制度，将“在典型地区和城市开展干部离任环境审计的试点工作”，并计划在十三五之后在全国推广。

但孙兴华说：“财政部还没开始做呢，不懂环境，没法做。尤其是，会计审计不懂环境，查表也没法查。环境审计难就难在它的跨学科交叉

环境审计的结果，就是给离任的官员出具一个“生态资源离任审计表”，用这张表来追究官员的环境责任。而这一办法，正开始在中国试点。

性，必须是会计、审计、环境专家共同协作。”

## 中国环境审计的曲折历程

环境审计的目的，是要把环境污染和生态破坏的治理修复成本纳入企业资产计量。用孙兴华的话说，就是企业外部环境成本内部化，因企业7%的GDP增长率中，有3%可能都要用来支付环境治理成本，所以企业的实际GDP增长，应该是4%。“外部成本内部化，加大亏损，企业谁能愿意呢？”孙兴华说。

20多年来，环境审计工作走走停停。要做环境审计，第一步是要有绿色会计，没有会计如实记录核算自然资源的价值和损耗，审计工作没法开展。但是会计们不懂环境，无法记录自然资源的价值及污染破坏导致的损耗。孙兴华只好投向环保阵营。事实上，环保方面做好监测记录，环境审计工作就可以开展。

其时环保副部长潘岳力图改革，启动了绿色GDP课题组，并开始

做试点。所谓绿色GDP，就是要在GDP增长中扣除环境污染成本，也是环境审计的要审核的内容。

孙兴华说，十多年前中科院可持续发展研究组组长牛文元，提出在GDP增长率中扣除生态赤字2个百分点，算作生态环境的成本。经过绿色GDP课题组的研究，2004年扣除4个百分点。GDP增长总共才百分之7左右，这一下就扣除了一多半。因这个扣除没有实时监测记录，以及会计基础核算，也即没有确实的依据，再加上每个省实际情况又不一样，最后10个试验省市的绿色GDP研究失败了。

“我们认为要搞绿色GDP核算，必须从基础开始，要把环境会计和基础的核算工作搞起来。”他说。

不过，他2001年倡议成立的中国会计学会环境会计专委会，但许多专业的会计都反对。说这个绿色会计研究太超前。会计工作，只针对那些货币能够计量的内容核算。而这些自然资源、矿山湿地、江河湖海，值多少钱呢？环境污染没有人

给定价，所以没法核算。

孙兴华也曾做过尝试，想看看在小范围能否推动。北京朝阳区一个污水处理厂，是他的审计客户。他想拿来做个技术节能减排环境审计先例。

可审计核查发现，企业的出水监测不达标。他在审计报告里如实写了，厂方不同意出否定报告。最后报告没有验收，审计费用也没支付。

这种困难，只有亲自经历才知道。当他呼吁环境审计工作迫在眉睫的时候，应者寥寥。他说：“现在整个的核算体系中，环保效益根本没有核算。滇池治理，国家投入多少个亿，治理效果怎么样，有环境绩效审计么？没有。太湖治理有么？也没有。”

孙兴华认为，最重要是建立一套协调配合、运转有效的审计实施机制，需加强审计机构和环保、国土、水利等部门的协作机制。

张春，中外对话北京办公室编辑

# Trial audits to hold environmental officials to account

Civil servants to be made more answerable for poor environmental decisions, but measuring performance will be difficult

Zhang Chun

China is moving ahead with plans to evaluate provincial officials on the environmental consequences of their decisions – even long after cadres have left office – but auditing experts say making such calculations is inherently difficult.

The scheme, which involves scrutiny of damage officials incur on the environment during tenure, and punishments to be carried out over a lifetime, is due to be rolled out across China by the end of the decade.

The central government wants to back up a raft of new or revised environmental laws with rigorous enforcement and tough penalties for those involved in pollution of China's air, water and soil.

But measuring or auditing an official's impact on the environment won't be easy, points out Sun Xinghua, deputy chair of the China Environmental Sciences Association's auditing committee.

China would have to establish a baseline or benchmark on the condition of the environment on a particular date, and in a particular locality, before an official's performance could be audited effectively or fairly, says Sun.

For such work to be carried out effectively, authorities will need to ensure companies carrying out audits are independent and 'corruption-proof'.

"To hold officials to account all these need to be quantified and recorded in black and white," Sun told chinadialogue, "so that when an official leaves you can compare the situation before they took up their post. When they leave, you should know if the environment improved



Green GDP calculations need to start at the bottom – with environmental accounting and basic calculations

or not."

A coordinated and accurate audit would also require environmental, land and water authorities all working together, Sun adds, and a much more prominent role for the ministry of finance, which has little experience working on environmental issues.

"There's no consideration of environmental [value] in the entire system. How many hundreds of millions did it cost the state to clean up Dian Lake? How effective were those efforts? Has there been an audit of the outcome? No. For Lake Tai? Again, no," Sun says, referring to two attempts to clean up heavily polluted lakes in China.

Another obstacle lies with attempts to determine the value of wetlands, rivers and lakes. If nobody puts a price on environmental pollution, it can't be included in

accounts, adds Sun, who has experience of auditing a water treatment plant in the Beijing district of Chaoyang.

During his tenure there, owners of the treatment plant suppressed a report that documented how the company wasn't monitoring its output of greenhouse gases correctly.

## Pilot scheme

China has few case studies to draw upon that could serve as models for a future national system of environmental auditing, although the provinces of Shandong and Guizhou are already exploring ways to enforce accountability in the use of natural resources.

In early March, a report from the Ministry of Environmental Protection (MEP) chose Lanzhou as the first city in China to trial environmental auditing.

Meanwhile the government's recent action plan for dealing with water pollution emphasises that pollution can be measured. Chen Yongqing, a deputy inspector for the MEP's Department of Pollution Prevention and Control, said earlier this year that of the 238 measures in the 'ten point water plan', "every one is quantified, checkable and can be used to hold officials to account."

The current pilot scheme for environmental measurement stems from a 2004 report headed by Wang Jinnan, deputy head of the MEP's Academy of Environmental Planning, which investigates government environmental auditing systems. The plan is to carry out trials of audits when officials leave their post in 'typical regions and cities', and

to roll the system out nationwide after the 13th Five Year Plan (2016-2020) period.

## Green GDP

In the private sector, one of the main aims of environmental auditing is to ensure costs of cleaning up pollution and environmental damage are measured accurately as a cost, and then factored into calculations of a company's value.

Undaunted by the challenges of accurately measuring the economic value of natural resources, MEP vice-minister Pan Yue has tried to bring about reform by investigating whether China can measure 'Green GDP' in a way that costs of pollution are deducted from headline GDP figures.

Sun, who also heads the Chinese Academy of Sciences' Sustainable Development Research Group, proposes deducting two percentage points from annual GDP growth figures to account for the environmental deficit over ten years.

The government's own Green GDP task group, meanwhile, has gone further, recommending figures for 2004 be slashed from the headline 7% to a much more modest 4%.

"We think Green GDP calculations need to start at the bottom – with environmental accounting and basic calculations," Sun says. ☺

*Zhang Chun is an editor in chinadialogue's Beijing office.*

# 中国环境法官全部合格需5年

中国正加强司法体系，以帮助解决环境污染问题。但对法官来说，环境是个棘手的新问题。

张春

在习近平“宁要青山绿水，不要金山银山”的坚定态度下，2014年，中国有大量的环境法庭成立起来，共计371个。最高法院在去年7月3日宣布设立专门的“环境资源法庭”。今年5月，又宣布成立环境资源司法研究中心，继续加强理论研究和专业化建设。

环境案件的审判，开始走向专门化。而环境法官们，也面临着专门化和技术化的挑战。

## 被迫成立的环境法庭

中国第一个环境法庭，于2007年在贵阳市清镇县成立；第一个案子，是当地的水源地污染案件。特别之处在于，该法庭是专门为该污染案而成立。“第一个案子一直就存在，比成立法庭还早。”庭长罗光黔对外对话说。

这个水源地名为红枫湖，是贵阳市最重要的水源地，前些年出现了红藻。主要污染源在贵阳辖区以外一个名为平坝的县城。那里有一个老的国有化肥厂，生产磷铵化肥，并产出一一种副产品磷石膏灰。

“他们家的磷石膏灰长期露天堆放，一下雨，哗啦哗啦，就把渗滤液、废液都冲到红枫湖上游的阳昌河，直接流进红枫湖。经过检测发现，这个污染源是红枫湖总磷超标

要以培训和换人的方式，  
使中国的环境法官全部  
合格，大概需要5年。

—— 韩德强

的主要原因。”罗光黔说。磷超标可导致红藻爆发。

贵阳管不了，化肥厂不在贵阳的管辖范围内；环保厅也管不了，因为环保厅的行政级别有限，下了整改通知它不听。后来，贵阳成立了“两湖一库管理局”，统管包括红枫湖在内的三个重要水源地的一切事务。在清镇法庭成立之后，这个管理局就以化肥厂为被告，提起了公益诉讼并胜诉。

这是清镇法庭的第一个案件，也是中国第一个公益诉讼案件。按照西北政法大学副教授王继恒的说法，这个案件“把中国司法专门化的改革推向了前台”。

随后，以清镇法庭为首，包括昆明、无锡在内的几个地方法庭也在环境案件审判中做出了开创性的工作。随着环境案件的增加，环境审判专门化需求更加强烈。在新环保法的驱动下，大量的环境法庭在2014年建立起来。

但很多地方的法庭面临着类似问题：案件数量少，法官专业度不够。对案件审理最重要的因素，还是法官专业水平。“这个和知识产权案一样，你没有相关知识，职位再高也审不了。环境资源审判，也是往这方向发展。”最高人民法院环境资源司法研究中心副秘书长韩德强说。

## 迎头追赶的环境法官

西安市环保局副局长张炳淳对中外对话说：“环境案件是技术问题，法官培训很有必要。”

西北政法大学丁岩林教授所说，

环境案件对法官的专业性要求高。而从法律专业背景角度，当前的法官队伍组成还不理想。

“环境法专业在过去十几年一直是大学的偏门，即便是环境法毕业的，到法庭工作的也较少。”最高人民法院韩德强说。第一个环境法庭的庭长罗光黔认为，理想的环境法官是“具有理工科背景的人”，因为他们更容易理解技术方面的问题。但要把“理工背景”和环境法律专业结合起来，就更难了。

在中欧环境治理项目和环保部合作的法官培训项目（西北政法大学和德国国际合作机构承担）中，陕西有近 60 名法官参加。陕西高院知识产权庭法官涂道勇告诉中外对话：“培训有必要，案子很快就会多起来！”

法官们急迫的原因，还不是案子多起来，是大多数法官都没有接触过环境案件，对此完全没有概念。陕西宝鸡市南镇县刑事庭庭长袁小菊对中外对话说，她所在县上，“以前从没有过环境相关案件，去年才有一例倾倒污染物案件。以前有类似的案件，例如鱼塘污染鱼死了，一直都是以民事侵权案件处理。”

即便接受过环境案件的法官，在案件中也颇多顾虑。环境问题沉

痾已久，地方发展也不能猝然停滞，环境司法虽然有新环保法在手，却还不敢下猛药，法庭可以管到什么程度，可以怎么管，当前并没有统一的尺度。加之环境案件自身的复杂性，有经验的法官也要费一番脑子。

罗光黔在案件审理中做了一些创新。例如，某污染企业成为被告，在正式立案之前和案件审理进行中，该企业可能还会持续排放污染物，法院在确认有可能持续排放污染物的情况下，会下达一个“诉前禁令”，在起诉之前就让企业停止生产和排放污染物。这个在以前并不是法院的职能，而是行政部门的工作。

清镇法庭也首次采用专家证言作为证据。例如，土地污染领域的专家出面证明某地的土地污染物是否能够清除，危害有多大，法庭可以采信，不是必须请第三方鉴定机构。这样可以省却大量鉴定费，并简化案件。

贵阳的环境法庭，是最高院指定的 4 个环境资源法庭试点之一，有“创新”办案的特权。并且，贵阳市因为已经经过一定的发展阶段，现在案件数量和类型都比较定型。包括其他三个试验法庭所作的创新办法是不是能够在全国推广，还有待最高院的决定。

## 法官换血需要时间

虽然困难不少，但环境案件目前还处于试水阶段。例如，公益诉讼案件数量就没有如大家期待的那样，在新法实施后陡然爆发。全国案件在 2014 年前总共才 100 来件，2014 年一年就有 100 多件，上升明显，“但也并不算多。”佛蒙特法学院副教授林燕梅告诉中外对话。

林燕梅认为，中国环境案件爆发还需要三年时间。因为当前只有法律框架，配套的政策体系等还没有建立起来。这一说法也得到西安市环保局副局长张炳淳的认同。

中国正加紧对法官进行培训。上述法官培训项目历时一年多，广西，陕西和甘肃三地共有约 300 名法官参加培训，并有 18 人成为培训师。除了该项目之外，国家法官学院、中国政法大学等，也都在展开不同形式的环境司法培训。

“要以培训和换人的方式，使中国的环境法官全部合格，大概需要 5 年。”韩德强说。

张春，中外对话北京办公室编辑

# Growing pains for China's environmental courts

China is scaling up its environmental courts, but there may not be enough experienced judges to hear complex pollution cases

Zhang Chun



© zcool

*The Supreme People's Court recently launched a national 'environment and resources court', and last month announced the founding of a training centre for judges*

China in recent years has set up hundreds of new environmental courts as part of institutional reforms that aim to encourage greener growth and curb pollution, but the country will have to speed up training and recruitment to ensure judges have the necessary expertise.

The Supreme People's Court recently launched a national 'environment and resources court', and last month announced the founding of a training centre for judges.

The moves are aimed to bring more professionalism to handling of pollution cases, and come amid rapid growth in the number of environmental courts, which according to the Supreme People's Court now number at least 370 throughout the country.

Although the number of cases being heard is still

relatively low as new environmental laws only start to take effect, figures are expected to rise sharply within the next three years.

Prior to 2014 there had been a total of approximately 100 public interest environmental cases heard nationwide, but during last year alone, more than 100 were heard.

"But that's still not a lot," says Lin Yanmei, associate professor at Vermont Law School.

More than 300 judges have now received specialist training, 18 of whom have gone on to instruct others.

In addition, new training courses in environmental law are being provided by the National Judges College and China University of Politics and Law.

But the measures could take five years to meet the requirements of the new environmental courts, said Han Deqiang, deputy-secretary of the Supreme People's Court's Center for Research into Environmental and Resource Issues.

In addition to having the required capacity to deal with an expected increase in cases, the reforms also bring a new set of challenges for judges, many of whom lack requisite background and technical knowledge.

"It's like in intellectual property cases," says Han. "It doesn't matter how high-ranking you are, if you don't know the field you can't hear the case. It's the same with environment and resource cases."

## Challenges

Environmental law isn't a popular choice at universities,

and only a very small number who study it go on to work in the judiciary, say experts.

The ideal environmental judge has a background in science and engineering, allowing them to more easily understand the technical issues involved, says Luo Guangqian, head of China's first environmental court. But such candidates are scarce.

Some areas run extensive training programmes. Shaanxi province has put 80 judges through training offered in a partnership between the EU-China Environmental Governance Programme and the Ministry of Environmental Protection.

Scaling up the number of qualified and capable judges will be crucial because many have never handled an environmental case and have little idea of what's involved.

Urgency is needed because "we're going to be getting a lot more of these cases soon," says Tu Daoyong, a judge at the intellectual property tribunal of the provincial high court.

Judges with some experience in environmental cases face other challenges, such as maintaining independence in areas where polluting companies wield hefty political power and enjoy patronage from local officials.

Because environmental cases are often complex, even the most experienced judges can sometimes be left scratching their heads.

### Pilot schemes

Luo Guangqian suggests an innovative approach to hearing cases.

To cite one example, a company accused of pollution could find itself receiving a 'pre-hearing order' to halt operations and discharge of pollutants. In the past, such an order would only have come from a government body.

Allowing expert testimony as evidence is another innovation that should be applied on a wider scale, he adds. For example, an expert on soil pollution might now be called to testify on whether pollution can be cleaned up, or how much damage has been done.

A court could then accept that evidence, rather than commissioning a third-party body to carry out an independent assessment, saving both time and money.

An environmental court in Guiyang in the southern Chinese province of Guizhou was one of four set up as part of trials initiated by the Supreme People's Court, and has been granted the right to 'innovate' in dealing with cases.

The court was created in 2007 to resolve a jurisdiction dispute involving pollution in the city's main water source, and the court eventually ruled against the offending fertiliser plant, making it the first public interest case of its kind in China.

However its not clear at this stage whether the Supreme People's Court will be able to expand the experience of the four trial locations to courts on a nationwide basis. ☹

*Zhang Chun is an editor in chinadialogue's Beijing office.*

# 中国私营部门须在污染治理上担当主力

中国若想解决环境危机以及遏制煤炭污染，私营部门必须加大资金投入规模。

马骏 / 谢·孟哲

中国成立亚洲基础设施投资银行（简称‘亚投行’）加剧了“是否需要由新兴国家领导的新一代开发银行来确保融资决策充分考虑环境可持续增长原则”的争论。然而，更重要的是这些原则是否可以巩固正在国际金融体系中彰显核心作用的发展中国家的总体资本市场。

目前看来，答案似乎是肯定的。中国和其他主要新兴经济体似乎决心要设计一个能够长期服务于包容性和可持续性发展目标的金融体系。但若要建立真正具有包容性和可持续性的全球经济，单凭他们自己是无法完成的。

因此，政策性投资载体极为重要。近年来，这类机构的数量和重要性都在不断增加。其中，国际化特征最为明显的当属亚投行和即将成立的由金砖国家经营的新开发银行，

但它们也不过是冰山一角而已。世界上规模最大的两家开发银行——巴西开发银行（BDB）和中国国家开发银行（CDB）管理的总资产约为1.5万亿美元。

主权财富基金也对全球资产市场产生了很大的影响。其资产规模从2007年的略高于3万亿美元增加到现在的超过7万多亿美元。同时，货币当局也在发挥着日益积极的作用，主要央行的资产负债表规模从2005年的5.5万亿美元扩大到今年早些时候的13.9万亿美元。

这些数字虽然庞大，但与商业银行、机构投资者、以及其他私营金融机构和个人持有的305万亿美元的金融资产相比，就相形失色了。这些资金的配置方式将决定未来的经济格局及其赖以生存的环境状态。

联合国环境规划署（UNEP）近

期委托撰写的一项报告简明扼要地用两个关键数据点总结了目前的状况：尽管去年全球可再生能源投资增加了17%，但140个国家中有116个国家的自然资本存量出现减少。换句话说，针对环境相关的风险和机遇，金融市场正在做出响应，但速度太过缓慢，远远无法阻止人类活动可能带来的灾难性破坏，更不必说扭转这种趋势了。

这种状况必须有所改变。为此，需要快速果断地引导融资从自然资源密集型和污染型投资中退出，转向绿色领域。尽管绿色经济和产业政策十分关键，目前仍然有所欠缺；同时，还必须处理好金融经济的政策和市场失灵问题。

现代史上最严重的一次金融危机是由经济合作与发展组织（OECD）成员国引起的。然而这些

“针对环境相关的风险和机遇，金融市场正在做出响应，但速度太过缓慢，远远无法阻止人类活动可能带来的灾难性破坏，更不必说扭转这种趋势了。”

国家却无意将可持续性作为其金融体系的设计原则（英格兰银行是个例外。值得注意的是，英格兰银行正在对气候相关的金融风险进行谨慎的评估）。这与一些面临着紧迫的环境社会挑战、并且以“发展”的角度看待金融体系作用的发展中国家形成了鲜明对比。

### 中国的绿色金融工作组

以中国为例，中国人民银行（PBOC）成立的绿色金融工作组刚刚发布了构建中国绿色金融体系的14项雄心勃勃的提议。“绿色金融工作组”由中国人民银行研究局和联合国环境规划署（UNEP）可持续金融体系设计研究项目联合发起，最初由40位部长、监管部门官员、专业院校的学者、以及金融机构代表组成，并获得了国际专家的支持。近期，“绿色金融工作组”已经包括100多家机构，共同为每一项议案制定详细的执行计划。

14项提议涵盖以下四大领域：

- 支持国内外绿色投资的专业投资工具。
- 财政和金融支持，包括绿色贷款利息补贴、发展绿色债券市场的激

励措施、优化绿色企业的股权市场环境绩效披露机制。

- 新的金融基础设施，包括碳交易市场、绿色评级体制、绿色投资者网络等。
- 法律基础设施，包括更加明确的放款人责任条款、强制性环境责任保险、环境信息的披露等。

与世界其他国家一样，中国的绿色金融体系正处于初级阶段。幸运的是，通过联合国环境规划署对绿色金融和资本市场为期两年的研究发现，绿色金融在巴西、肯尼亚和印度尼西亚等新兴国家以及英国等发达国家正在蓬勃发展。

近期中国采取的行动标志着金融市场的发展开始进入一个新的阶段，绿色金融目标将成为重中之重，而不再只是一项附加条款。中国人民银行副行长潘功胜表示，绿色金融将成为“中国金融部门改革与发展十三五规划”的“关键要素”。

### 金融风险的临界点？

发展中国家当前向“绿色金融”转变的趋势具有重要的国际影响。尤其是，随着中国对全球金融的影响日益增加，它所开展的工作有可

能会推动世界走向临界点。

而事实上，国际行动（从知识共享到制定合理标准和监督措施）对推进绿色金融的发展至关重要。幸运的是，这方面也正在取得进展。联合国环境规划署的工作有助于推动建立一个包括央行、其他规则制定者和市场参与者在内的充满活力的非正式网络。

主要评级机构标准普尔公司（Standard & Poor）正在将气候风险因素纳入其主权信用分析。20国集团（G20）最近也要求金融稳定委员会（FSB）考虑全球金融体系可能遭遇“碳泡沫”的风险。这种风险源自于市场未能充分考虑石油、煤炭和天然气资源未来的开采和使用极限，从而高估了化石燃料企业的能源储备。

进步国家的领导人和国际联盟，以及深度参与的多边机构需携起手来，共同构建一个更具包容性的全球绿色金融体系。唯有这样的金融体系才可以有效推动世界的可持续发展。

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# Private sector must lead in China's war on pollution

Companies will need to step up funding massively if China is to solve its environmental crisis and curb coal, says central bank economist as the UN marks 'Climate Finance Day'

Ma Jun / Simon Zadek

China's establishment of the Asian Infrastructure Investment Bank (AIIB) has intensified debate about whether a new generation of development banks, led by emerging countries, is needed to ensure that financing decisions adequately account for principles of environmentally sustainable growth. Far more important, however, is whether such principles underpin developing countries' broader capital markets, which have become increasingly central to the international financial system.

The answer, as of now, seems to be yes. China and other major emerging economies appear committed to designing financial systems that serve the long-term imperatives of inclusive and sustainable development. But they cannot create a genuinely inclusive and sustainable global economy alone.

Policy-directed investment vehicles, which have grown in number and significance in recent years, are critical to this effort. While the AIIB and the forthcoming New Development Bank, operated by the BRICS countries, are the most visible internationally, they are only the tip of the iceberg. The world's two largest development banks – the Brazilian Development Bank and the China Development Bank – together manage about US\$1.5 trillion in assets.

Sovereign wealth funds – the assets of which have swelled from just over US\$3 trillion in 2007 to more than US\$7 trillion today – also have a significant influence on global asset markets. Likewise, monetary authorities have been playing an increasingly active role, with the major central banks' balance sheets having expanded from about US\$5.5 trillion in 2005 to US\$13.9 trillion earlier this year.

But such figures, though large, pale in comparison

with the US\$305 trillion worth of financial assets held by commercial banks, institutional investors, and other private financial institutions and individuals. How these funds are deployed will determine the shape of tomorrow's economies and the state of the environment on which they depend.



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*The PBOC's deputy governor, green finance will be a "key element" of "the 13th Five-Year Plan" for the reform and development of China's financial sector*

Recent reports commissioned by the United Nations Environment Program (UNEP) neatly summarise where we are with two key data points: While global investment in renewables increased by 17% last year, 116 of 140 countries registered a deterioration in their stock of natural

capital. In other words, financial markets are responding to environment-related risks and opportunities, but far too slowly to halt, let alone reverse, the potentially catastrophic damage being wrought by human activity.

This must change. Finance needs to be directed more rapidly and decisively away from natural-resource-intensive and polluting investments and toward green opportunities. While greener economic and industrial policies are vital, they are inadequate; policy and market failures in the financial economy must be addressed as well.

The Organisation for Economic Cooperation and Development countries, despite being the source of modern history's most devastating financial meltdown, have shown less appetite to advance sustainability as a design principle of their financial systems. (The Bank of England's ongoing prudential review of climate-related risks to the financial sector is a notable exception.) This contrasts with the approach of some developing economies, which not only face more immediate environmental and social challenges, but also take a "developmental" view of the financial system's role.

### China's Green Task Force

Consider China, where a task force created by the Peoples' Bank of China has just unveiled 14 ambitious proposals to green the country's financial system. The so-called "green finance task force" – co-convened by the PBOC's Research Bureau and the UNEP Inquiry into Design Options for a Sustainable Financial System – initially comprised 40 ministers, regulators, academics and financial actors, supported by international experts. It was recently expanded to include more than 100 institutions, which are working together to create detailed execution plans for each proposal.

The proposals cover four broad areas.

- Specialised investment vehicles to support green investment, domestically and internationally.
- Fiscal and financial support, including interest subsidies for green loans, incentives for developing the green bond market, and better mechanisms for green firms to communicate their environmental performance in equity markets.
- New financial infrastructure, including carbon markets, a green ratings system, and a green investor network.
- Legal infrastructure, including clearer lender liability provisions, compulsory environmental liability insurance,

and the disclosure of environmental information.

Green finance is at an early stage in China, just as it is in the rest of the world. Fortunately, according to UNEP's two-year inquiry into policy options for greening financial and capital markets, the movement is gaining traction in emerging countries such as Brazil, Kenya and Indonesia, as well as developed economies like the UK.

China's recent move marks the beginning of a new phase of its financial-market development, in which green-finance goals are central, rather than an add-on, to relevant initiatives. According to Pan Gongsheng, the PBOC's deputy governor, green finance will be a "key element" of "the 13th Five-Year Plan for the reform and development of China's financial sector."

### Tipping point?

The current shift toward green finance in developing countries can have a significant international impact. China's efforts, in particular, could take the world to a tipping point, through their effects on the country's growing global financial footprint.

And, indeed, international action – from knowledge sharing to the development of suitable standards and oversight – is vital to advance green finance. Fortunately, progress is being made here, too. UNEP's work has helped to invigorate a vibrant informal network involving central banks and other rule-makers and market actors.

The major rating agency Standard & Poor's is integrating climate risks into its sovereign-credit analysis. And the G20 recently asked the Financial Stability Board to consider the risks that a possible "carbon bubble" – caused by markets' overvaluation of fossil-fuel companies' oil, coal and gas reserves, owing to a failure to account for future limits on extraction and use – pose to the global financial system.

Progressive national leadership and international coalitions – together with more deeply engaged multilateral institutions – are needed to build a more inclusive green global financial system. Only such a system can effectively advance sustainable development. 📌

*This article first appeared on the website of Project Syndicate.*

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# 中国食品安全问题能根治吗？

为什么中国的出口食品可以达到超过99%的合格率？既然出口食品可以保证安全，国内食品的安全供应也一定可以实现。

于晓华

中国的食品安全事件层出不穷，百姓对吃的东西难以放心。中国政府虽然一再强调对食品安全加强监管，并成立了跨部委的国务院食品安全委员会，但是收效甚微。与此同时，中国国家质检总局局长支树平在2015年3月博鳌论坛上称，中国的出口食品质量合格率超过99%。如此内外有别的食品质量，导致了百姓对政府的食品安全监督政策的不满。

## 为什么中国会发生食品安全的问题？

这是由食品供应和中国农业生产的特点决定的。

食品安全监管需要关注食品供应链的每一个环节：从农民，到购销商，加工商，批发商，零售商。任何一个环节出现问题都会导致食品安全发生重大事件。

首先，食品供应链的第一环为农民。中国人多地少，实行土地均分的家庭承包责任制，导致农户规模



中国会发生食品安全的问题这是由食品供应和中国农业生产的特点决定的

小。最近的统计显示，中国有2.6亿多农户，人均耕地2亩多，户均耕地9亩左右。大量零散小农户导致监管成本非常高昂。食品安全问题，通常是大规模地区性的行为。在发生食品安全事件后，如果把造假农户都抓起来，中国的监狱可能根本无法容纳！

然后，我们再看购销商、加工商、批发商，以及零售商。如果他们规模很大，大而不能倒，通常会受到地方政府的特殊保护。这牵涉到地方政府的声誉、就业，以及社会安定等问题。比如，三鹿奶粉事件在最终爆发前，各地已经发现了奶粉质量问题，但是石家庄市政府和三鹿

奶粉一直瞒报。

所以，可以观察到，发生食品安全时，如果原因在农民或者是大企业，通常都难以查处。只有肇事者是那些小规模购销商、加工商、批发商或者零售商时，才能得到及时有效查处。但是，这些企业规模很小，流动性很大，政府监管非常困难。

## 为什么食品造假问题都是大规模的？

这是因为企业或者农民在生产过程中存在竞争性行为。造假者通常价格较低，导致不造假企业难以生存，只能跟随造假。这就是所谓的逼良为娼。所以像三聚氰胺以及滥用抗生素和瘦肉精这样的不良食品技术，在民间传播很快。这更加凸显了政府监管的重要性和困难性。

中国也导入了食品认证机制，把食品安全认证分为三个类别：无公害食品，绿色食品，以及有机食品。但是，这些认证机制在中国也很难得到消费者的信任和认可。消费

者普遍认为认证标签也是可以造假的；且在实际操作中，认证机构也无法对认证企业或者农民的食品质量进行全方位实时监控。

## 那为什么中国的出口食品可以达到超过99%的合格率？

既然出口食品可以保证安全，国内食品的安全供应也一定可以实现。

这是因为中国的食品出口都是企业间的长期行为，且出口食品价格较高，保证了企业的合理利润。如果发生一次造假行为，可能永久失去出口合同，从而导致企业破产。所

以，企业会有内在动力严格监管食品质量，这包括了对上游供应商和自身生产质量的监控。

这样的准则其实也可以运用到国内食品生产和供应。

如果要保证国内食品质量，政府首先要采取措施提高食品企业的准入规模，鼓励兼并，只有企业规模大了才可以降低监管成本；其次，鼓励农民成立协会，以协会的形式向市场供应，这一方面容易形成品牌，提高利润，同时农民之间也可以互相对产品质量监督；再次，对最终销售企业进行严格监管，一旦发生食品安全问题，严惩不贷，甚至直接让该企业破产，企业负责人负担刑事

责任，并永久退出食品行业。这样会激励企业向食品供应链上游进行质量监管。最后，为了防止地方政府对某些大企业的特殊保护，中央政府应该设立举报监督平台，协助百姓通过网络等形式公开食品质量问题。

但是，这些政策可能会导致企业和农民增加生产成本，最后转移到消费者。经济现实就是这样，难得两全其美！👉

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# Time to fix China's food safety conundrum

Companies that export food from China meet quality standards, so why is food sold on the domestic market so bad? Chinese academic Yu Xiaohua attempts to give some answers

Yu Xiaohua

Food safety scandals have become so common in China that people are losing confidence in what they eat. The government has consistently emphasised the need for better regulation of the food industry, and it's established an inter-ministerial committee under the State Council to pursue that goal. But so far little progress has been achieved.

Zhi Shuping, head of the government's General Administration of Quality Supervision, Inspection, and Quarantine, said during the Boao Forum for Asia in March that more than 99% of the food exported from China meets all standards for safety and quality. Such an apparent gap in quality between what's produced for the domestic and foreign markets has led to public discontent.

So why are food safety problems so much more likely to occur in China than in other countries? The situation can be blamed on the combined effects of the country's food supply system and characteristics of the agriculture industry as a whole.

Food quality regulators need to supervise every stage of food production, from farmers to procurers, processors, wholesalers, and retailers. Any problem at any stage can lead to a disaster.

At one end of the industrial chain are farmers. China's household-based contract system for agricultural management means each household's output is very limited. Recent data shows that China has more than 260 million rural households that each cultivate on average about nine mu—or 6,000 square meters—of land. It's very difficult to supervise and manage such a huge number of small, scattered farming households. So when a food safety incident happens, it's unrealistic to punish all the farmers involved.

Let's take a look at procurers, processors, wholesalers, and retailers. Those that are big companies are often protected by local governments that want to maintain employment levels and social stability, as well as protect the reputations of local government officials. For example, with help from the city of Shijiazhuang's government, reports about tainted milk produced by a local dairy called Sanlu Group were hidden from the public in 2008. The scandal became a national sensation long after the firm received reports from local distributors that its milk powder was making people sick.

It can thus be inferred that it's difficult to enforce rules

“The situation can be blamed on the combined effects of the country's food supply system and characteristics of the agriculture industry as a whole.”

and punish wrongdoers whenever food safety issues are caused by farmers or big companies. Only when a culprit is a small enterprise can an effective punishment be imposed. And these companies usually move around easily, which means the government may have a hard time keeping track of them.

Food problems are also tied to fierce competition between farmers and between food companies. Bad food can be sold at low prices, forcing competitors to follow suit or lose out. Technologies for cheaply processing food may be widely adopted by companies seeking to stay in business. All of this underlines the need for and challenges of government regulation.

### Certification

As in developed countries, China has a system for certifying safe foods. They are divided into three categories: pollution-free, green, and organic. But the system has failed to gain the consumer trust because it's widely believed that certification tags can be faked. This is especially true considering that certification organisations are unable to monitor the whole chain of food production in real time.

But why did more than 99% of the foods China exported meet quality standards? It's probably because all those exporters are companies with long-term goals. Besides, foods made for export usually command higher prices than those made for the China market. So producers can expect reasonably high profit margins. Moreover, a company caught making and exporting fake food risks losing contracts permanently and going bankrupt. These factors, then, are strong incentives for a company and its suppliers to maintain strict quality control.

The same logic could be applied to the domestic food

industry. To guarantee food safety, the government first needs to raise the entry threshold for food businesses and encourage mergers and acquisitions to form several, large companies. Only when companies are big enough can regulators supervise them at a reasonable cost.

### Tough punishments needed

The government also needs to encourage farmers to form associations and sell through those associations. This practice would likely raise their profits, build brand awareness and help farmers supervise each other's operations. Moreover, the government needs to establish strict regulations for retailers and punish violators severely. That means shutting them down if necessary and pursuing legal action against company executives when food safety regulations are violated. This will provide incentives for companies to extend quality control systems all the way to suppliers.

Last but not least, the central government should set up a public platform that accepts food safety problem reports. Through a system of this kind, local governments and the big companies they support could not dodge responsibility. These measures, however, would probably increase operating costs for farmers and companies. These extra costs would be passed on to consumers. That is the unfortunate reality of economics. You cannot have it both ways. ☹

*This article first appeared on the english language website of Chinese news site Caixin.*

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# 中巴牛肉贸易重开 需应对经济环境挑战

此类经济上的双赢举措或将巩固资源密集型的全球动物制品生产模式，而该模式被认为需要认真反思。

周晚晴

在北美、欧洲和一些拉丁美洲国家，动物蛋白尤其是牛肉的过量消费与环境问题之间的联系日益显著。包括干旱、森林滥伐、土壤侵蚀和气候变化在内的环境危机不仅出现在这些国家境内，也通过生产线的延伸转移到了其他国家。在中国，随着经济的快速发展和民众生活水平的提升，这些环境问题与同样由肉类过量消费引发的公共健康危机和社会影响一起，也受到了越来越多的关注。

近日，中国解除了对巴西牛肉进口的禁令。这项禁令是因2012年巴西出现的一例牛海绵状脑病（又称疯牛病）而颁布的，至今已长达三年。随着肉类贸易的增长和全球食品系统的持续演进，全球化畜禽产业的格局将愈发清晰；经过大致分类，由工业化的生产及消费国（如美国）、新兴消费国（如中国）和资源供应国（如巴西）组成的“肉类三角”正走入人们的视线。

淡水资源、生物多样性和生物质为全世界带来了无价的环境益处，然而它们的价值，或因失去它们而将付出的代价，并没有充分反映在当地农畜产品的价格上。

## 中国不断增长的牛肉需求

猪肉依然是中国人最主要的肉食来源，但中国的牛肉消费量也在快速增长。2014年，中国生产了690万吨牛肉（包括小牛肉），并进口41.7万吨，主要来自澳大利亚、乌拉圭和新西兰。

近期预测显示，到2020年，中国牛肉进口量可能超过77万吨，这

意味着在未来五年间增长超过50%。2014年9月，中国政府颁布合理增加牛羊肉进口的政策，以适应城市中正在变化的肉类消费模式（牛羊肉的经济价值均高于猪肉）。

随着肉类需求的增长，中国已成为大豆（动物饲料主要原料之一）的净进口国。美国农业部的数据显示，2014年，中国进口7350万吨大豆，是国内大豆生产量（1240万吨）的六倍。

美国和巴西是中国进口大豆的主要来源国，2014年各向中国出口大豆300多万吨，共占中国进口大豆的85%以上。美国农业部预计，未来十年间，中国大豆进口量将增长45%，达到10770万吨，是国内生产量的近九倍。

## 像美国那样生产、消费？

在美国，封闭式、高密度且资本和能源投入密集的工业化养殖场

只占动物农场数量的5%，它们的产品却占全国总产量的50%以上。中国在生产和消费模式上，都在向这样的工业化国家靠近。

美国人均肉类消费量高于每年100公斤，或每天300克。相比之下，中国人均肉类消费量只是美国的一半，每天约150克。虽然相差很大，但这两国的人均肉类消费量都已经超出了世界卫生组织推荐的健康消费量的上限。

西式快餐店和售卖包装好的生鲜肉的超市正迅速普及，在其驱动下，中国也已经开始采用美国在二战后发展起来的工业化动物产品生产、加工模式。作为农业纵向一体化产业链之首的龙头企业得以在政府激励政策的支持下满足人们对大量、便宜肉类的需求。这种需求在很大程度上是由营销手段催生、维持并扩大的。活跃在巴西和其他一些拉丁美洲国家的规模庞大且政治力量雄厚的畜牧产业，将很可能在中国扮演日趋重要的角色。

### 出口或流失的资源

恢复牛肉贸易是中国和巴西之间新达成的一系列经贸合作中的一部分，另一项备受瞩目的合作项目

是横跨南美大陆、连接太平洋和的大西洋的“两洋铁路”。这条铁路预期将会加快巴西、秘鲁和其他拉丁美洲国家的经济发展。

两洋铁路的路线尚未确定，技术和环境评估也有待进行，不过有方案显示铁路将穿过巴西的农业腹地马托格罗索州，那里密集分布着大规模牛场和大豆种植园。如果开通铁路，将能够大大降低巴西牛肉和大豆出口的运输成本。

对巴西来说，这是一个极好的商业机会。然而，多年来为了放牧和种植大豆而进行的森林砍伐已经让该国失去了大量“真正的财宝”，例如亚马逊热带雨林和塞拉多草原中的淡水资源、生物多样性和生物质。

这些曾经丰厚的自然财富为全世界带来了无价的环境益处，包括调节局部和区域气候、碳封存、提升土壤肥力、防止土地侵蚀和沙漠化。然而它们的价值，或因失去它们而将付出的代价，并没有充分反映在当地农畜产品的价格上。因此，为了避免造成更多的负面环境影响，中国、巴西、美国和其他很多国家间肉类及饲料贸易的直接和间接影响都应该得到充分的研究和考量。

肉类的过度消费已经给许多国家带来了巨大的挑战。决策部门和

研究机构若能直面这些现实，将能够实现一系列可持续意义上的互惠共赢，例如减少环境污染、减缓气候变化、促进国民健康、降低医疗开支、提升粮食安全，以及加强生态保护。

现在是时候让我们带着对健康、可持续发展的未来的渴求，来重新思考人类和动物制品之间的关系了。在如何减少化石燃料消耗的讨论中，已经有学者提出“去合法化”这一概念。北京新实施的公众场所控烟条例也是将吸烟“去合法化”的例子。类似地，将肉类的过度消费“去合法化”，可有助于改造目前居于主流地位的食品系统，使其更加符合可持续发展的需求。若要实现这种转变，所有关键国家的政策支持都不可或缺，比如调整消费建议、减少对肉类和饲料行业的补贴、制订更加严格的环境保护与治理法规、增强执法力度，以及就相关问题开展公众教育活动等。

原文刊载于中外对话自网站中拉对话

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# China-Brazil's resource-intensive beef trade

Recent deal bolsters resource-intensive global meat production at a time that the world should be looking at alternatives, writes Zhou Wanqing

Zhou Wanqing

Over-consumption of animal protein – especially beef – in North America, Europe and some Latin American countries is increasingly linked to a range of environmental crises both within and outside continental borders, such as drought, deforestation, soil erosion and climate change.

These factors, together with negative public health and social impacts of meat over-consumption, are also growing realities in China, mapping the rapid pace of economic development and raised living standards.

China recently lifted a three-year ban on beef imports from Brazil, put in place after a single case of Bovine Spongiform Encephalopathy (BSE, commonly known as the mad cow disease) was reported in Brazil.

As trade grows and the global food system continues to evolve, a clearer picture of the globalised livestock industry, characterised as a 'meat triangle' between industrialised producer-consumer countries (such as the US), emerging consumer countries (such as China), and resource-provider countries (including Brazil), is coming into focus.

## China's growing appetite for beef

Although pork remains the main type of meat in China, beef consumption is rising sharply. In 2014, China produced 6.9 million tonnes of beef (including veal) and imported another 417,000 tonnes, mainly from Australia, Uruguay, and New Zealand.

Recent projections estimate that by 2020, China's beef imports will exceed 770,000 tonnes, growth of more than 50% in the next five years. In September 2014, the Chinese

government announced a national policy of increasing imports of beef and lamb – both of which are more economically valuable than pork – to keep up with shifting consumption patterns in cities.

As demand for meat has grown in China, the country has become a net importer of soybeans, a major ingredient in animal feed. According to US Department of Agriculture (USDA) data, in 2014, China imported 73.5 million tonnes of soybeans, nearly six times its domestic production of 12.4 million tonnes.

The US and Brazil accounted for more than 85% of China's soybean imports, with each supplying more than 30 million tonnes in 2014. The USDA estimates that China's imports of soybeans will grow a further 45% over the next decade to 107.7 million tonnes, almost nine times domestic production levels.



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*Delegitimising overconsumption of meat has the potential to change the dominant model into a more sustainable one*

## The US model

In general, China is now following the production and consumption model of industrialised countries such as the US, where 5% of livestock farms produce more than 50% of the meat supply in confined, concentrated, capital- and energy-intensive industrial production facilities.

Per capita meat consumption in the US is more than 100 kilogrammes a year, or about 300 grammes per day. In comparison, China consumes half as much meat on a per capita basis, around 150g per day. Although vastly different on a per person basis, consumption of meat in both countries is well above the healthy levels recommended by the World Health Organization.

Fueled by the expansion of western-style fast food outlets and supermarkets selling packaged meats, China has also started to adopt the model of industrial animal farming and processing adopted by the US after the Second World War. 'Dragon head enterprises', referring to the head of a vertically integrated production chain, benefit from government policy incentives to satisfy demand for plentiful and cheaper meat (a demand that is largely created, maintained and expanded by marketing efforts) – an increasing amount of which is likely to be supplied by Brazil and other countries in Latin America with large and politically powerful livestock sectors

## Brazil's 'agro-industrial complex'

Reopening the meat trade is part of a huge new trade package between China and Brazil, the centerpiece of which is the proposed transcontinental railroad project that will connect the Atlantic and Pacific oceans. The railroad is expected to speed up economic development in Brazil and Peru, as well as other Latin American countries.

Although the route of the railroad has not been decided and the technical and environmental impact assessments are yet to be carried out, the route is expected to run through the state of Mato Grosso, Brazil's agro-industrial heartland, where large-scale cattle ranching and soybean plantations are concentrated. If it becomes operational, the railroad could greatly reduce the transportation costs for beef and soybean exports from Brazil.

For Brazil, this is an opportunity to make sizeable profits. However, destruction of rainforest to make way for low-efficiency cattle ranching and soybean cultivation has already resulted in the loss of much of the country's "real

gold": freshwater resources, biodiversity, and the biomass of the Amazon and the Cerrado, the Brazilian savannah, which, in common with the Amazon, is also rich in flora and fauna.

## Bountiful resources

These once-bountiful resources provide invaluable environmental benefit to the world, including local and regional climate regulation, carbon sequestration, soil fertilisation, and the prevention of erosion and desertification.

But their value, or the costs of losing it, are not adequately reflected in the price of agricultural products. To avoid further negative environmental impact, the direct and indirect effects of the trade of meat and feed between Brazil, China, the US and many other countries deserve careful study and consideration.

Meat overconsumption already poses significant challenges to many countries. Addressing this reality head on, in policy-making bodies and research institutions could bring a series of mutual benefits such as reduced pollution, climate change mitigation, healthier populations with lower health care expenses, higher food security, and ecological conservation and resilience.

## Less meat, fewer emissions

The time has come to reconsider the relationship between human beings and animal products, with the future of a healthy, sustainable world in mind. The concept of "delegitimisation" has been discussed in the context of curbing fossil fuel consumption and smoking in public spaces (a shift China just made with a new ban on smoking in indoor public places recently instituted in Beijing).

Similarly, delegitimising overconsumption of meat has the potential to change the dominant model into a more sustainable one. For such a transition to succeed, policy support in all key countries is needed, such as suggested consumption levels, reduced subsidies for the meat and feed sectors, stricter environmental regulations with stronger enforcement, and convincing public education. 🌱

*The original version of this article appeared on chinadialogue's sister site dialogochino.net*

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# 挪威或将刺激全球煤炭撤资

全球最大的挪威财富基金或将抛售其大部分的煤炭投资，此举将推动全球的煤炭撤资运动。

约翰·麦克加里蒂

挪威主权财富基金是全球最大的基金，资金规模达 9000 亿美元。周三，一家挪威颇具影响力的议会委员会表示，该基金应减少对涉煤企业的投资。这一举动有望成为全球化石燃料“撤资运动”进程中的一次重大胜利。

挪威一项多党提案提议，所谓的石油基金应减持那些收入或发电量的 30% 以上都来自于煤炭企业的股份。挪威议会金融委员会批准了这项提案。这等于是对饱受批评人士指责过于宽松的投资标准予以加紧。

金融委员会的批准意味着该议案或将在 6 月 5 日的议会票选中得到更多的支持。也就是说，挪威将会削减与煤炭有关的投资。此举有可能会引来其他大型基金和资产管理机构的效仿。

“投资煤炭企业不仅会对气候构成威胁，对未来经济的发展也有风险。”金融委员会的会议议员在联合声明中说道。

如果该提案能如预期的那样通过 6 月 5 日的票选，那么，挪威的石



投资煤炭企业不仅会对气候构成威胁，对未来经济的发展也有风险

油基金将不得不从全球最大的煤矿企业——中国神华能源股份有限公司撤资。包括德国莱茵集团在内的欧洲的电力公司也将遭受重创。

“议会总体来说会倾向于支持金融委员会的决定，但有一些议员反对进一步限制煤炭投资。”绿色和平组织挪威办公室的约翰·哈默斯托 (Johan Hammerstrøm) 称。

负责管理主权基金的挪威央行投资管理公司 (NBIM) 称，近些年

煤炭投资一直呈下滑趋势。对于这一说法，活动人士们却并不买账。

近期，由德国非政府组织 Urgewald，挪威“未来在我们手中”、以及绿色和平组织发布的一项报告称，该基金在煤炭领域的涉足程度要远远高于表象，因为 NBIM 只计算了其在煤炭领域的一小部分投资。

这份题为《污染与危险》的报告称，NBIM 对煤炭领域的定义并不包括燃煤公用事业、煤制气、煤制

油行业、多元化经营的大型煤炭开采企业(如必和必拓公司)、煤炭运输以及专业煤炭技术企业等。

这份报告称,如果将上述行业纳入其中,则2013年末该石油基金所持有的煤炭行业资产规模(包括股权和债券)超过820亿挪威克朗(折合104亿美元),是NBIM声称的25亿挪威克朗(3.18亿美元)的煤炭行业投资规模的40倍。

基于上述可观的数字,挪威工党议员托尔斯泰因·索尔伯格称,如果挪威石油基金能够坚决地从煤炭行业撤资,这将是应对气候变化的一项重大胜利。

在最近的几年中,银行、保险公司、投资机构也紧随大学、宗教机构、公共养老基金的步伐,同意限制或停止对煤炭领域的投资。煤炭是气候变化和空气污染的罪魁祸首,也是发展中国家水源污染的最大元凶。

## 燃煤经济性降低

虽然大部分私企仍不愿承诺停

止煤炭行业的投资,但在上周,法国保险巨头安盛(AXA)表示将会退出与煤炭有关的投资项目。

活动发起者不仅强调煤炭是全球变暖的元凶、保留现有地下煤炭储存是多么至关重要,同时也指出投资开采新的煤矿、兴建出口终端和发电设施的经济效益将越来越低下,并称煤炭基础设施将成为“搁浅资产”。

由于全球煤炭供过于求、能源消费结构向可再生能源和相对清洁的天然气转移,斯托全球煤炭指数(The Stowe Global Coal Index)在过去五年里市值暴跌近70%。但煤炭行业和一些分析师仍然坚信印度和快速发展的东南亚国家将会拉动煤炭需求,使煤价在本世纪20年代出现回升。

## 东移?

有一点毋庸置疑,就是在近期澳大利亚、美国对华煤炭出口的经济效益出现持续下滑。中国这个全球最大的能源消费国正力求实现电

力燃料的自给自足,同时中国政府治理雾霾的行动也对燃煤发电站的运行进行了限制。

“撤资运动”的关键问题有两点。一是全球主要金融机构是否会出于经济或道德因素的考量而最终撤出对煤炭行业的投资;二是在西方投资者从煤炭行业撤资后,发展中国家中那些风险顾虑较少的长期投资者是否会取而代之。

上述报告同时也指出了一些进军煤炭项目的新企业,如印度电力集团GVK;关键问题在于,煤炭企业是否能够轻易地从发展中国家获得贷款。

印度等发展中国家以及日本等发达国家的投资者或许会将煤炭这种污染性极强的燃料看作是未来几十年推动发展中国家经济增长的动力。

但“撤资运动”的发起者认为,减少对煤炭领域的资金支持会迫使矿产开采和能源企业减少产出,从而给清洁能源留下发展的空间。

约翰·麦克加里蒂,中外对话副总编

# Hopes rise Norway can spark coal divestment trend

The world's biggest sovereign wealth fund will ditch most of its investments in coal, emboldening the global campaign to cut off funding for the fuel blamed most for climate change

John McGarrity

Norway's US\$900 billion (5.59 trillion yuan) sovereign wealth fund, the world's largest, will divest most of its investments in firms that mine or burn coal after a vote in the Norwegian parliament last week, a move that could prove a major victory for the global divestment campaign.

The vote in favour of divestment was a formality after a finance committee of Norwegian MPs agreed in a cross-party motion in late May that the country's so-called oil fund should sell stakes in companies that generate more than 30% of their output or income from producing the fuel or burning it in power stations.

This would amount to major tightening of investment criteria that many critics say have been far too slack.

Campaigners have disputed claims by Norges Bank Investment Management (NBIM), which runs the fund, that investment in coal has been falling over the past few years.

A recent report from German NGO Urgewald, Norway-based Future in Our Hands, and Greenpeace, says that the true extent of the fund's involvement in coal is much higher because NBIM has only been measuring a tiny portion of

the fund's investments in the coal sector.

The 'Dirty and Dangerous' report said coal-based utilities, the coal-to-gas industry, the coal-to-liquids sector, diversified mining companies that are major coal producers – such as BHP Billiton – coal transportation, and specialised coal technology companies were all excluded from NBIM's definition.

The joint report claims that if these types of companies are included, the oil fund held assets of over NOK 82 billion (US\$10.4 billion) in the coal industry (including equity and bonds) at the end of 2013, around 40 times the NOK 2.5 billion (US\$318 million) NBIM cites for the fund's investments in coal miners.

Taking those figures into account, Norwegian Labour MP Torstein Solberg says a decisive withdrawal from coal by the country's oil fund is "a great victory in the battle against climate change."

In the past few years, banks, insurance companies and institutional investors have joined universities, religious institutions and public sector pension funds in agreeing to restrict or end their involvement in financing coal, the fuel blamed most for climate change and a major source of air and water pollution in fast-growing developing countries.

the fuel blamed most for climate change and a major source of air and water pollution in fast-growing developing countries.

## Weak economic case for coal

Although most private sector institutions have so far refused to commit to ending their financing for coal, last week major French insurance company Axa said it would

dump its investments related to the fuel.

Campaigners have not only highlighted coal's contribution to a warming climate and the need to keep most of the remaining supply in the ground, but have also targeted the increasingly weak economic case for investing in new mines, export terminals and power plants, pointing out that coal-related infrastructure are becoming "stranded assets".

The Stowe Global Coal Index has lost around 70% of its value in the past five years amid a global supply glut and structural shifts towards renewables and cleaner-burning gas.

However, the coal industry and some analysts say that growing demand from India and fast-growing economies in south-east Asia could help prices recover in the 2020s.

### Eastwards shift?

But in the nearer term, few disagree that exports of coal from Australia and the US to China are increasingly uneconomic as the world's largest energy consumer turns to domestic supply to feed its power stations, many of which may operate less regularly as the central government tries to cut down on toxic smog.

One key question for the divestment campaign is

whether most of the world's major financial institutions will eventually ditch coal, either for economic or ethical reasons, or whether less risk-averse, longer term investors in developing countries will be happy to replace western asset managers if they withdraw from coal.

Campaigners say they will now target the Netherlands' state pension fund because of its investments in fossil fuels.

The 'Dirty and Dangerous' report on Norway highlighted new entrants into coal projects, such as Indian utility GVK. A major focus could be on whether coal companies are able to tap into an easy flow of finance from developing country lenders.

In countries such as India, investors may take the view that the world's most polluting fuel will power their economies – and some developed ones such as Japan – for decades to come.

But for divestment campaigners, cutting off funding in many parts of the world will mean that miners and power companies will have no choice but to scale back their output, giving the world a better chance to shift to cleaner alternatives. ☺

*John McGarrity is chinadialogue's deputy editor based in London.*

# 尼加拉瓜运河巨大的环境代价

生态环境保护者们警告说，这条造价500亿美元的跨洋运河会带来环境灾难。

克里斯·克劳尔

早前的一个清晨，教师若热·洛佩兹和自己的一位朋友在尼加拉瓜布里托河一片风景如画的泻湖上垂钓，这里距太平洋不到一公里。在狭窄河道的一处拐弯，树木拱立、绿荫参天；树身上苔痕遍布、满眼鲜碧。他指着那里说：“吼猴、鳄鱼和鸚鵡都在这条河道上生活，如果这一切都消失了，我们会为此感到羞愧。”

给这片宁静的水域以及尼加拉瓜很多美景带来威胁的是一项雄心勃勃却饱受争议的工程。该项目将修建一条穿过加勒比海连接太平洋和大西洋、全长173英里的运河（超过巴拿马运河的三倍）。这项由中国商人王靖提议、造价为500亿美元的运河工程获得了尼加拉瓜政府的全力支持。尼加拉瓜是西半球仅次于海地的第二穷国，政府宣称这条运河将促进本国经济迅猛增长。

该运河工程获得了许多尼加拉瓜人的支持，甚至在环境影响评估完成之前就展开了前期工作。另一些尼加拉瓜人和国内外科学家们则认为这项工程将带来一场环境灾难，威胁该国大量的生态系统。此外，由

于运河将穿过原住民的领地，因此包括原住民在内的数以万计的尼加拉瓜人将失去家园。

运河的西端位于洛佩兹垂钓地点的附近。这里将修建一座防波堤和大型港口，可停泊超级油轮和容纳2.5万个集装箱的超大货船。沿着尼加拉瓜太平洋海岸修建的港口基础设施会对红树林沼泽和海龟筑巢的海滩造成威胁。接下来，运河将穿过洛佩兹钓鱼的荒凉海岸丘陵区，深度将达到近100英尺，再经过16英里的耕地，然后连通中美洲最大的淡水湖——尼加拉瓜湖。



洛佩兹垂站在尼加拉瓜布里托河岸，上对面就是尼加拉瓜运河工程选址地

科学家们认为尼加拉瓜湖遭受的破坏将是无法估量的。尼加拉瓜

湖的平均深度只有40英尺，而运河全长的三分之一将穿过这个湖泊。若修建运河则要在此基础上再向下挖掘两倍左右的深度。整个运河的挖掘工作将产生数量惊人的淤泥和渣土，足以把整个康涅狄格州盖上厚达一英尺的灰土。科学家们警告说，淤泥将使湖水变得浑浊，威胁原生鱼类和其他物种的生存，外来物种也将顺着运河从太平洋和地中海进入尼加拉瓜湖。

运河从尼加拉瓜湖出发继续东行，穿过荒凉的湿地、自然保护区和森林，其中尚有许多地方无路可通。运河及相关基础设施很可能轻易占据几英里的区域，道路和工棚建设也会侵占原住民定居的大片荒野，导致成千上万的人被迫迁移。

在加勒比海一侧，频繁往来的超级油轮和货船将威胁到敏感的海洋生态系统，包括面积为250平方英里的哥伦比亚生物圈保护区，这里有加勒比海第二大珊瑚礁系统。运河还会将所谓的“中美洲生物走廊”一分为二。“中美洲生物走廊”是一个由保护区和其他土地构成的松散

“  
在我们看来，这条运河将给尼加拉瓜和更广泛的地区带来一场环境灾难。

—— 尼加拉瓜国家科学院副院长、生物学教授  
若热·乌艾特 - 佩雷斯”

网络，从墨西哥南部延伸到巴拿马，是美洲虎等动物穿越中美洲的通道。

今年年初，尼加拉瓜国家科学院副院长、生物学教授若热·乌艾特-佩雷斯与一位德国学者共同在《自然》杂志上发表了一篇评论。他在文中说：“在我们看来，这条运河将给尼加拉瓜和更广泛的地区带来一场环境灾难。从太平洋到大西洋数百公里的挖掘工作将毁掉约四十万公顷的热带雨林和湿地。相伴随的开发活动将破坏周边的生态系统。”

运河的规模如此宏大、造价如此高昂、经济效益如此不确定、王靖的背景如此神秘、环境的潜在破坏性如此巨大，许多人对该运河能否建成表示怀疑。持怀疑论的一些人认为，王靖的主要着眼点并不在于修建运河，而是在九个尼加拉瓜政府授权的“子项目”上。有了这些授权，王靖便享有了在运河区内外进行开发的专有权。这些项目包括靠近里瓦斯市的一座机场，以及附近仿照巴拿马科隆建立的一个自贸区。王靖还可能在包括尼加拉瓜湖中包括美丽的奥梅特佩岛在内的九个开发地点中选择四个修建大型旅游度假区，这些地方原本计划用来建设工人宿舍区。

不管怎样，运河工程还在继续推进。提议得到了尼加拉瓜总统丹

尼尔·奥尔特的力挺，并且其子还是王靖的联络人，提议在未经充分讨论和招标的情况下获得国会的通过。2013年，王靖的公司——香港尼加拉瓜运河开发投资有限公司（HKND）获得了为期50年的运河建造和经营特许权。期满后，还可以继续续约。



尼加拉瓜湖的日落。科学家表示，运河的建设将会使得大量的外来海洋生物侵入尼加拉瓜河

美国乔治·梅森大学的托马斯·罗夫乔伊是一位生态学家，足迹遍布南美各地。他和尼加拉瓜的科学家们就这个运河工程进行了商谈。他说：“运河的持久性超出了人们的预想，尼加拉瓜政府对该项目的处理方式毫不透明，简直和将来淤在湖里的沉积物一样混沌不清……烂点子总是阴魂不散，这就是一个最好的例子。”

洪堡中心位于马那瓜，是尼加拉瓜顶尖环境智库组织。该中心主任维克多·坎波斯对运河工程缺乏透

明度、全面环境影响评估和经济可行性研究缺位的现象提出了类似的质疑。他说：“规划中的运河路线将带来令人难以置信的后果，但我们所掌握的信息既不全面，也不完整。”

许多观察家对这个项目的经济意义提出质疑。考虑到巴拿马运河正在进行一项造价52.5亿美元的拓宽工程，待工程完工后，巴拿马运河将可以通行更大的船只，而大型船只正是尼加拉瓜运河的一个关键市场。

此外，令科学家和生态环境保护者们担忧的是，项目的环境影响评价是由HKND公司自行委托其他机构完成的，并且时间十分仓促。科学家们表示，虽然承担此次环评工作的咨询公司“环境资源管理”(ERM)是一家颇受好评的机构，但HKND只给了ERM一年多点的时间来进行环评，而这项工作原本至少要耗费几年时间。ERM的报告定于本月晚些时间完成。

今年初在迈阿密召开的一次会议上，一个国际科学家小组向ERM公司代表提出了尖锐的质疑，称ERM对关键问题缺乏基本的了解，比如尼加拉瓜湖的水流状况及湖底的构造等。

阿克塞尔·梅耶是德国康斯坦茨大学的进化生物学家，也是与若热·乌艾特-佩雷斯在《自然》上联合发表评论的另一位作者。他说：“我是一个直言不讳的批评者。项目的整个进程都违反了基本的流程。运河路线已经定好了，建设已经开工了，然而环境影响评估却还没有进行。”

《耶鲁大学环境评论》杂志与HKND公司联系，请其对《自然》上的这篇文章作出评论，但未收到

任何回应。

面积 3170 平方英里的尼加拉瓜湖里生活着 40 种特有鱼类，包括一种罕见的淡水鲨鱼和 16 种鲷鱼。因此，运河给尼加拉瓜湖环境带来的影响是人们最为关切的问题。这座湖泊的命运成为去年 11 月在马那瓜举办的一次会议的主要议题。共有 15 位科学家参与会议，包括几位来自美洲国家科学院的代表。研究者们担心，湖泊的挖掘、以及计划每天 25 艘巨型船舶的通行量和潜在的燃油泄漏都会降低该湖水质。目前，这座湖是尼加拉瓜一些城镇的饮用水源，如果人口增长和地下水位下降的趋势持续下去，那么该国将有更多人（或许还有其他中美洲国家）不得不依赖尼加拉瓜湖供水。

会上，科学家们还询问 HKND 公司将如何处置挖掘出来的 50 亿立方米泥土和湖底淤泥。在去年 12 月新修订的一份规划中，HKND 公司表示泥土将主要运往位于运河两岸 3 英里宽范围内的 35 座“封闭处理设施”中。还有一堆土将被置于尼加拉瓜湖中间，建成一座人工岛。

但是，来自洪堡中心的坎波斯等批评者怀疑，如果泥土中发现有毒物质，挖掘计划是否还能进行下去。他说：“湖底下可能埋着火山活动形成的汞、砷等重金属，挖掘活动会把这些物质翻到表面，从而改变湖水的自然成分。”

另外，为保持穿过尼加拉瓜湖的运河航道通畅，河道清淤的频率如何设定是另一个重大问题。罗夫乔伊表示如果松软沉积物持续流回航道中，那么频繁的疏浚将“给食物链和物种的生存能力带来切实的严重损害”。



尼加拉瓜运河将穿过尼加拉瓜东部诸多脆弱的生态系统，黄带箭毒蛙和巨嘴鸟等物种都会受到影响

罗夫乔伊和其他人也担心这条运河将为入侵物种从加勒比海进入太平洋开辟一条走廊，反之亦然，从而将外来物种带入尼加拉瓜湖。巴拿马运河的构造和高度形成了一个淡水屏障，消灭了那里大部分的入侵物种问题。但研究者们表示尼加拉瓜运河是否能够具备一个同样有效的屏障还是未知数。

河水经运河从尼加拉瓜湖的东侧流出，穿过或挨着几个自然保护区继续东行。批评者们警告说，这可能会给许多偏远地区带来大规模的自然和人文剧变。目前运河的路线是沿着塞罗-席尔瓦保护区和印第欧-梅茨保护区两个毗邻自然保护区的边界。这两个自然保护区总面积为 2600 平方英里，涵盖了沼泽、雨林以及原始的加勒比海岸红树林，栖息着美洲虎、虎猫和美洲狮等猫科动物，以及包括美洲角雕在内的无数种鸟类，因此具有极高的生物

多样性。

尼加拉瓜东部一条几乎未经开发的河流——蓬塔戈尔达河，也将变成运河的一部分。随着该地区交通网络的迅速贯通，移民、森林砍伐、偷猎和生物多样性丧失也会接踵而至。

梅耶一直在尼加拉瓜和其他中美洲国家工作，他说：“开展工程建设就必须先修路，因为很多地方原来根本无路可走。道路修好后，如何阻止人们在那里定居是一个问题。当然修建道路永远是一切的开始……就像在亚马逊或非洲那样。只要有了路，就会有人来。”

此外，HKND 公司还计划在尼加拉瓜东部建造一座面积 152 平方英里的水库，名为亚特兰大湖。这座水库将延伸到塞罗-席尔瓦保护区和印第欧-梅茨保护区之内，目的是为运河加勒比海一端的船闸提供水源。但科学家们警告说，这座水库将吸取来自圣胡安河及蓬塔戈尔达河流域的水，流量的减少加上开挖造成的沉积物增加会影响河流的形态。其中，部分河段与哥斯达黎加边界重叠、且通行量大的圣胡安河受到的影响尤为明显。科学家指出，如果降水模式随着气候变暖而发生变化，可能就没有足够的水充满运河及船闸，也无法满足尼加拉瓜的用水需求。

加规划中的运河还将沿着尼加

“项目的整个进程都违反了基本的流程。运河路线已经定好了，建设已经开工了，然而环境影响评估却还没有进行。”

拉瓜湖东岸 166 平方英里的圣米格利托湿地边缘前进，这里由纵横交错的沼泽和小河构成，生物多样性极为丰富，并获得了《拉姆萨尔湿地公约》的认证。船只往来会影响沼泽地的生态，惊扰栖息在这里的 80 余种鸟类，而圣米格利托湿地正是观鸟者心中的圣地。



赛罗-席尔瓦保护区位于尼加拉瓜东部。运河修建与渠道建设将使自然保护区变为施工场地

运河的影响还将波及尼加拉瓜以外的地区，包括距离尼加拉瓜海岸 90 英里的海葵生物圈保护区。这是一个大型海洋保护区，拥有加勒比海第二大珊瑚礁系统。

弗朗西斯科·阿里亚斯·伊萨扎是哥伦比亚政府资助的海洋学研究机构 Invemar 的负责人。他指出，水质、透明度和水温的变化都会导致海葵生态系统“崩溃”。“正在探讨建设的运河规模巨大，大量巨型货轮会集中到这个海域，这正是我们所担心的。”他补充道。

科学家们担心的不仅是运河对环境的影响，还有环境对运河的影

响。尼加拉瓜不仅位于地震和火山活动十分频繁的地区，还是加勒比飓风的通行路径。一百年前美国政府之所以选择巴拿马，而非尼加拉瓜来修建运河，正是出于上述考虑，因为巴拿马不在飓风路径上。

美国地质调查局水文学专家鲍勃·斯塔拉德 30 年来致力于风暴对巴拿马运河影响的研究，他说：“1855 年以来，尼加拉瓜遭遇的四级或四级以上的飓风至少有 4 次，运河破坏后的修复费用与当初修建时差不多。”

尼加拉瓜加勒比海沿岸遭受的最近一次大风暴是 1998 年的飓风“米奇”，造成 3800 人死亡，经济损失达 10 亿美元。规划中运河的加勒比海港口——蓬塔戈尔达遭到了巨大破坏。

对大多数尼加拉瓜人来说，运河的环境影响只是很不起眼的次要问题，首要的问题还是运河带来的经济刺激。这是丹尼尔·奥尔特总统亲口承诺的，他把这个项目说的好似一个火箭助推器，可以让尼加拉瓜飞上经济繁荣的高空。

木匠俄涅斯托·萨利纳斯住在靠近运河太平洋一端的小镇托拉。他的村子就位于运河的规划路径上，所以必须搬迁。他认为运河是一件彻头彻尾的大好事，因为它可以给这个以香蕉和豆子为主要经济来源的农业村落带来“更多工作，减少

贫困”。“赶快干吧”萨利纳斯说，他关心的主要是开发商什么时候对他家五百英亩的农场做出补偿以及金额是多少。

尼加拉瓜跨洋运河管理局发言人特勒马科·塔拉维拉说，运河及其“子项目”将令该国的经济基础扩大 50%，并使年经济增长率提高到目前 4% 的两倍。

本杰明·兰萨思是马那瓜一家工程公司的老板，也是尼加拉瓜建筑协会的主席，他说运河项目将带来许多亟需的公共基础设施，可以刺激全国的发展，而且对经济增长产生“乘数效应”。

兰萨思说：“我们需要更好的道路、更好的机场、更好的网络、更好的旅游胜地、更好的一切。举例来说，运河项目将包括两个深水港，一个在太平洋上，一个在大西洋上，而这是我们所没有的。”

他坚持认为运河建设带来的环境影响将“微乎其微”。但他又说：“只要是能够推动项目进展和创造就业，即便是经历一些艰难，我也会在所不辞。”

批评家们说，现在所谈到的（运河带来的）巨大经济收益在很大程度上都是猜测的，尤其是 HKND 公司尚未公布经济可行性研究结果。

乌艾特·佩雷斯说：“我最担心的一点就是政府将商业利益置于国家的环境福祉之上。”

批评家们说，现在所谈到的（运河带来的）巨大经济收益在很大程度上都是猜测的，尤其是 HKND 公司尚未公布经济可行性研究结果。

民间团体组织 Popol Na 致力于为原住民争取权益。该组织的环境律师莫妮卡·洛佩兹 - 巴尔托达诺声称，王靖并未与当地社区协商规划运河路径，这种行为违背了尼加拉瓜宪法。但运河的支持者们反驳说，尼加拉瓜国会通过的特别法律授权 HKND 公司可以在事先被界定为半独立的土地上进行建设。关于运河导致的移民人数有各种各样的估算，从 3 万到 10 万以上不等。

洛佩兹 - 巴尔托达诺在一次采访时说：“按照国际标准，HKND 公司现在公布的信息还不到应披露信息的百分之一，而且不确定它究竟会不会公布。我们探讨的问题是把国有土地交给一家私营投资者，并且对其所作所为几乎没有什么限制。”

运河项目的咨询公司——ERM 在一封电子邮件中表示已经进行了 2000 个“入户调查”，并与“原住民

社区进行了密切协商”。

但大自然保护协会的科学家乔·基耶塞科指出，运河项目缺少一个深入、独立的环境影响评估（EIA）。他说，这项研究可以让公众“了解项目的未来发展前景，以及如何才能最大限度地减少给生态多样性、社会和文化带来的负面影响”。他表示像这样具有巨大直接和间接影响的大型工程，其环境影响评估工作早在十年前就应该启动了。

当被问及为何运河规划在没有按照惯例经过公众听证和研究的情况下就开工建设时，尼加拉瓜运河管理局负责人曼纽尔·克罗奈尔 - 考茨回应说这是基于尼加拉瓜政府和王靖之间的契约。

考茨说：“我们也曾讨论过先做研究，因为国会的一些人希望这样。但如果等到研究完全结束再开工，至少要等上四年。另一个要考虑的

是成本问题，王靖不可能在无法确保拿到特许权的情况下投入 3 亿美元做研究。所以我们认为可以采用同时进行的方式来解决。”

运河项目存在大量疑问，因此许多观察家怀疑它是否能够实现。乌艾特 - 佩雷斯一直都持怀疑态度。他指出，当科学家们询问 HKND 公司是否对尼加拉瓜湖的水流状况和湖底构造进行研究时，该公司回应说没有必要开展这样的研究。

乌艾特·佩雷斯回忆说：“这个回答让我质疑这个项目的严肃性。”



本文由《耶鲁环境评论》和中外对话/中拉对话合作完成，并得到了普利策危机报道中心的支持。

克里斯·克劳尔，波哥大自由撰稿人，为《洛杉矶时报》供稿9年，内容涵盖中美洲和南美洲。

# Nicaragua Canal to bring huge environmental costs

A Chinese-funded US\$50 billion inter-oceanic canal is an environmental disaster in the making, conservationists warn

Chris Kraul

In a scenic lagoon on Nicaragua's Brito River, less than a mile from the Pacific Ocean, schoolteacher Jorge Lopez and a friend were fishing on a recent morning. He gestured toward a bend in the narrow river, canopied with arching trees draped in moss, and said, "There are howler monkeys, crocodiles, and parrots all along this waterway. It would be a shame to lose all this."

What threatens this tranquil spot and many others in Nicaragua is a controversial and wildly ambitious project to build a 173-mile canal — more than three times the length of the Panama Canal — that would connect the Pacific and Atlantic oceans via the Caribbean Sea. The US\$50 billion canal project is the brainchild of Chinese businessman Wang Jing and has the full support of the Nicaraguan government, which claims that the canal will give a huge boost to the country's economy, the second poorest in the Western Hemisphere after Haiti.

Many Nicaraguans back the canal project, and preliminary work has already begun — even before the completion of an environmental impact assessment. But other Nicaraguans, as well as local and international scientists, say the canal would be an environmental catastrophe, threatening a host of ecosystems across the country. They say it would also displace tens of thousands of Nicaraguans, including indigenous people whose territories the canal would cross.

The impacts would begin near Lopez's fishing spot, where a breakwater and giant port — capable of docking supertankers and immense cargo ships carrying 25,000 containers — are planned as the western terminus of the



*Lake Nicaragua, looking toward the Concepción volcano on Ometepe Island. The proposed canal would traverse the lake and require massive dredging, with potentially severe environmental consequences*

canal. The port infrastructure along Nicaragua's Pacific coast would threaten mangrove swamps and sea turtle nesting beaches. Then, passing through the remote, hilly coastal region where Lopez fished, the canal, carved to a depth of nearly 100 feet, would continue 16 miles through agricultural land to Lake Nicaragua, Central America's largest body of freshwater.

Scientists say the damage to Lake Nicaragua could be enormous. One-third of the canal's total length would go through the lake, whose average bottom of over 12 metres would have to be dredged to nearly twice that depth. The digging in the lake and over the rest of the canal's proposed route would generate an almost unfathomable quantity of mud and dredging spoils — enough to cover the entire state of Connecticut with one foot of dirt. Silt would cloud the

“  
In our view, this canal would create an environmental disaster in Nicaragua and beyond.

— Jorge Huete-Pérez  
”

lake's water column, threatening indigenous fish and other species, scientists warn, and invasive species could make their way into the lake along the canal from the Pacific and the Caribbean.

From Lake Nicaragua, the canal would head east, slicing through remote wetlands, nature reserves, and forests, many of them now inaccessible by road. The canal and related infrastructure could easily be several miles wide, and roads and construction camps would open up large areas of wilderness inhabited by indigenous people, thousands of whom would have to relocate.

On the Caribbean side, the traffic generated by supertankers and cargo ships could threaten sensitive marine ecosystems, including a 250-square-mile Colombian biosphere reserve that includes the second-largest coral reef system in the Caribbean. And the canal would cut in two the so-called Mesoamerican Biological Corridor, a loose network of reserves and other lands that stretches from southern Mexico to Panama and is used by animal species such as jaguars to cross Central America.

“In our view, this canal would create an environmental disaster in Nicaragua and beyond,” Jorge Huete-Pérez, a biology professor and foreign secretary of the Nicaraguan Academy of Sciences, wrote earlier this year in a joint commentary with a German colleague in *Nature*. “The excavation of hundreds of kilometers from coast-to-coast will destroy around 400,000 hectares of rainforests and wetlands. The accompanying development could imperil surrounding ecosystems.”

The scale of the canal is so grand, the price tag so high, the economics so uncertain, the background of Wang Jing so murky, and the potential environmental damage so extensive, that many question whether the canal will ever be built. Some sceptics think that rather than building the canal, Wang Jing has set his sights on building nine “sub-projects” that the Nicaraguan government has given him the exclusive right to develop in and around the canal zone. These projects include a major airport near the city of Rivas and a nearby free-trade zone that will resemble

the one in Colon, Panama. Wang Jing also has the option of building major tourist resorts on four of nine sites that initially would be used for worker housing camps, including picturesque Ometepe Island in Lake Nicaragua.

Nevertheless, the canal project continues to move forward. Jing's company, the Hong Kong Nicaragua Canal Development Group (HKND), in 2013 was granted a renewable 50-year concession to build and operate the canal. The proposal — aggressively pushed by Nicaraguan President Daniel Ortega, whose son is the liaison to Jing — sailed through the National Assembly with scant debate and no bidding.

“It has more staying power than one might have expected,” said Thomas Lovejoy, a US ecologist at George Mason University who has worked extensively in South America and who has been conferring with Nicaraguan scientists on the canal project. “The way it has been handled by the Nicaraguan government is the opposite of transparent. It's as opaque as all those sediments that would be rendered in the lake. ... It's a great example of how bad ideas never go away.”

Victor Campos, director of the Humboldt Center, a leading Nicaraguan environmental think tank based in Managua, raised similar concerns about the lack of transparency and the absence of a comprehensive environmental impact assessment and economic feasibility studies. “We have only partial and incomplete information, even though the proposed canal route would bring incredible consequences,” Campos said.

Many observers also question whether the canal project makes economic sense, given that the Panama Canal is now undergoing a US\$5.25 billion expansion that would enable it to accommodate more large ships — a key target market of the Nicaraguan venture.

Among the many concerns of scientists and environmentalists is that HKND has commissioned its own environmental assessment, which they contend is being carried out in hurried fashion. Scientists say that the consulting firm doing the work, Environmental Resource

Management (ERM), is a respected one, but it has been given little more than a year to carry out an environmental assessment that should take at least several years to complete. ERM's report on the canal was due in April.

At a meeting earlier this year with ERM in Miami, an international group of scientists pointedly questioned the firm's representatives, saying they still lacked basic knowledge on key concerns, such as the currents in Lake Nicaragua and the composition of the lake bottom.

"I have been an outspoken critic," said meeting attendee Axel Meyer, an evolutionary biologist at the University of Konstanz in Germany and co-author of the Nature commentary with Huete-Pérez. "The whole thing is backwards. They've settled on a route. They've started construction. Yet there is still no environmental impact assessment."

*Diálogo Chino* contacted HKND for comment for this article, but received no response.

## Toxic

The greatest environmental concerns center on the canal's impact on Lake Nicaragua, which contains 40 endemic fish species, including a rare freshwater shark and 16 kinds of cichlids. The fate of the 8,047-sq km lake was the main focus of a November meeting in Managua of 15 scientists, including representatives of several academies of science from around the Americas. Researchers were concerned that the lake dredging and the planned 25 daily crossings of huge ships would compromise the lake's water quality, as could potential fuel spills. The lake currently provides drinking water for some Nicaraguan towns, and if present trends of rising population growth and declining aquifers continue, more of the country — and perhaps other Central American nations.

Scientists at the Managua meeting raised questions about where the company will put the 5 billion cubic metres of dredged earth and lake bottom that that canal's excavation work will create. In a December planning update, HKND said most of the earth will be transferred to 35 "confined

disposal facilities" along the three-mile-wide shoulders on either side of the land portion of the canal. One mound of dredged earth would be located in Lake Nicaragua itself, creating an artificial island, HKND says.

But critics such as the Humboldt Center's Campos wonder about the viability of the dredging plan if the spoils turn out to be toxic. "What could happen is that contaminants like mercury, arsenic, and heavy metals that lie beneath the lake bottom, which were put there by volcanic activity, will be brought to the surface by the digging. This could alter the natural composition of the water."

Another major question is how much dredging will be necessary to keep the canal's channel across Lake Nicaragua open. If soft sediment keeps moving back into the channel, then frequent dredging could "really wreak havoc with the food chain and the ability of species to survive," said Lovejoy.

He and others also are concerned that the canal could open up a corridor for invasive species to travel from the Caribbean to the Pacific, or vice versa, and to bring alien species into Lake Nicaragua. The Panama Canal's configuration and elevation have created a freshwater barrier that has largely eliminated the invasive species problem there. But researchers say it is unclear if the Nicaraguan canal would be as effective a barrier.

When the canal leaves the eastern side of Lake Nicaragua, it would pass through or near nature reserves and would likely cause major environmental and human upheaval in many remote regions of eastern Nicaragua, critics warn. The current canal route would follow the border between two adjoining nature preserves, Cerro Silva and Indio Maiz. These highly biodiverse reserves total 6,734 sq km and include swamps, rain forests, and pristine Caribbean coastal mangroves. They harbor cat species such as jaguars, ocelots, and mountain lions, as well as numerous species of birds, including the harpy eagle.

A little-developed river in eastern Nicaragua, the Punta Gorda, would also become part of the canal. And roads would spring up throughout the region, which would likely

The whole thing is backwards. They've settled on a route. They've started construction. Yet there is still no environmental impact assessment.

— Axel Meyer

lead to settlers, forest clearing, poaching of wildlife, and loss of biodiversity.

“You have to have access for construction,” said Meyer, who has worked in Nicaragua and other parts of Central America. “They have to have roads in some areas where there are no roads. How do you keep people from settling there? Of course roads are always the beginning. ... It’s just like in the Amazon or Africa. As soon as you have roads, people will come.”

In addition, HKND is planning to create a 152-square-mile reservoir in eastern Nicaragua called Lake Atlanta, which would extend into both the Cerro Silva and Indio Maiz reserves. The lake would be used to store water to fill the locks planned for the canal’s Caribbean side. But scientists warn that the reservoir would siphon off water from the San Juan and Punta Gorda river basins. Reduced water flows and added sediment from dredging could affect the morphology of the rivers and especially be felt on the heavily transited San Juan, part of which runs along the border with Costa Rica. Should rainfall patterns change as the climate warms, there may be insufficient water to fill the canal and its locks and also meet Nicaragua’s water needs, scientists say.

The proposed canal would also run alongside the 166-square-mile (430-sq km) San Miguelito wetlands, a biodiverse latticework of marshes and rivers on the eastern shore of Lake Nicaragua, recognised by the Ramsar Convention on Wetlands. Ship traffic could affect the marshland’s ecology and disturb the 80-plus species of birds that inhabit San Miguelito, a treasured destination for birdwatchers.

The canal’s impacts will almost certainly be felt beyond Nicaragua’s borders. Ninety miles off the coast of Nicaragua is the Seaflower Biosphere Reserve, a large marine reserve that boasts the Caribbean’s second-largest coral reef network.

Changes in water quality, transparency, and temperature could cause the Seaflower ecosystem to “collapse,” according to Francisco Arias Isaza, director of Invemar, an oceanographic research agency funded by the Colombian government. “A new canal of the magnitude they are talking about would funnel huge cargo ships to the area, and that worries us,” he said.

Scientists worry not only about what the project could do to the environment, but what the environment could do to the canal. Nicaragua is the scene of frequent seismic and volcanic activity and is in the pathway of Caribbean

hurricanes, factors that persuaded the US government to bypass Nicaragua and instead select Panama, which is off the hurricane track, as the site of the famous waterway built early last century.

“Nicaragua has experienced at least four Class 4 or greater hurricanes since 1855,” said Bob Stallard, a hydrology expert with the US Geological Survey, who has studied the effect of storms on the Panama Canal for 30 years. “The cost of fixing damage [to the canal] could be as much as building the thing in the first place.”

The last major storm to hit Nicaragua’s Caribbean coast, Hurricane Mitch in 1998, killed 3,800 Nicaraguans and inflicted US\$1 billion in damage. The canal’s planned Caribbean port, Punta Gorda, suffered major damage.

## Economic advantages?

For most Nicaraguans, environmental concerns about the canal run a distant second to the economic stimulus that President Daniel Ortega has promised the canal would deliver. He has described the project as a booster rocket that will launch Nicaragua toward economic prosperity.

Ernesto Salinas, a carpenter, lives in the small town of Tola near the canal’s Pacific terminus. His pueblo is in the path of the canal and would have to be relocated. He thinks that overall the canal is a good idea because it will bring “more jobs, less poverty” to his agricultural community, where plantains and beans are the money crops. “Bring it on,” he said. His main concern is when and how much the developer will reimburse him for the 500-acre farm his family owns along the canal route.

According to Telemaco Talavera, a spokesman for the Nicaragua Interoceanic Canal Authority, the waterway and related “sub-projects” will add 50% to the country’s economic base and boost the economy’s annual growth rate to twice the current 4%.

Benjamin Lanzas, head of a Managua engineering company and president of the Nicaraguan Chamber of Construction, said the project could deliver much-needed public infrastructure that would stimulate development across the country and have a “multiplier effect” on economic growth.

“We need better roads, better airports, better Internet, better tourist attractions, better everything,” said Lanzas. “For example, this project will include two deepwater ports which we don’t have, one on the Pacific and one on the Atlantic.”

Lanzas insisted the environmental damage caused by the construction will be “minimal.” But, he added, “If I have to run over a little frog for this project to go forward and create jobs, I will.”

Critics say the talk of an economic windfall is highly speculative, particularly in light of the fact that HKND has yet to make public an economic feasibility study.

“What I’m afraid of is that the government is placing commercial interests above the nation’s environmental well-being,” said scientist Huete-Pérez.

Monica Lopez Baltodano, an environmental attorney with the Popol Na civil society group that advocates for indigenous rights, claims that Wang Jing failed to consult with native communities in the path of the proposed canal — a violation of the Nicaraguan constitution. But canal backers say special laws passed by the National Assembly gave HKND the right to build on native lands previously designated as quasi-sovereign. Estimates of how many residents would be displaced by canal construction run from 30,000 to more than 100,000 people.

“By international standards, HKND hasn’t presented even 1% of the information to the public that it should, and there is uncertainty about whether it ever will,” Lopez Baltodano said in an interview. “We’re talking about the transfer of national territory to a private investor with very few limits on what he can do.”

ERM, the project’s consulting firm, said in an email that it has conducted 2,000 “household surveys” and has “consulted closely with indigenous communities.”

## Impact assessments

Yet Joe Kiesecker, a scientist with The Nature Conservancy,

faulted the lack of an in-depth, independently funded environmental impact assessment (EIA). Such a study, he said, would enable the public to “see what the future looks like if a development goes forward and what you can do to minimise negative biodiversity, social, and cultural impacts.” The EIA for a project this size, which will have huge direct and indirect effects, should have been started a decade earlier, he said.

Asked why the canal’s planning has gone forward without the usual public hearings and studies in hand, canal authority president Manuel Coronel Kautz said it was due to stipulations agreed upon by the Nicaraguan government and Wang Jing.

“We discussed doing studies first — some in the National Assembly wanted that,” said Kautz. “But if we waited for the last letter of the studies to be completed it could mean up to four years of waiting. The other factor was cost. There was no way Wang Jing was going to invest US\$300 million in studies without the security of having the concession in hand. So we thought we would do a parallel process.”

With so many questions hanging over the canal, many observers wonder if it will ever become reality. Huete-Pérez remains one of the doubters, noting that when scientists asked HKND if it had studied Lake Nicaragua’s currents and the composition of its lake bottom, the company replied that such studies were unnecessary.

“That made me wonder,” recalls Huete-Pérez, “if this was a serious project.”

*This article is a joint project between Yale Environment 360 and chinadialogue/ Diálogo Chino, with support from the Pulitzer Center on Crisis Reporting.*

# 亚投行面临可持续借贷信誉考验

中国主导的亚投行需要确保其贷款项目是气候友好型，这不仅是贷款者，也是发放者的责任。

加拉赫·丽兹



亚投行的投资项目非常复杂，地域分布也十分广泛

球性的金融机构。亚投行的成立很有可能是为了呼应中国的“一带一路”政策，各成员国的投资也主要集中在能源、电力、交通、电讯、农业、供水、卫生、环保、城市发展和物流等基础设施建设领域。

亚投行是中国首次主动建立多边机构的尝试，因此备受媒体的关注。同时，其成立进度及投资决策也会在某种程度上给中国带来信誉风险。众多观察人士将会关注的问题是：亚投行在项目融资过程中如何将环境保护和社会保障纳入其中？亚投行的创始成员国又将承担和面临什么样的宏观风险？

## 高效、廉洁、绿色？

亚投行的投资项目非常复杂，地域分布也十分广泛。中国国内经济改革决策过程中开始采用一些较为复杂的风险评估方法，这些方法同样也会应用到新成立的国际金融机构之中。随着气候影响愈发严峻，以及各项发展目标的落实，可供利用的各种资源日益匮乏。而亚洲是受

随着协议签署仪式在北京圆满落幕，亚洲基础设施投资银行（简称亚投行）将成为国际金融领域的“热议话题”。亚投行从创建之初就引发了美国政府的不安，其组织运营也不够公开透明。尽管亚投行可能从根本上动摇国际政治和气候局势的稳定，人们对于其创始成员国明年将要做出的决策却知之甚少。

国际社会各种力量之间的平衡不断变化。面对这一状况，布雷顿森

林机构（BWI）却拿不出有效的措施对自身的管理机制进行改革。与此同时，众多国家也面临着基础设施融资严重不足的局面。亚投行在这种局面下应运而生。

据最新报道，中国牵头成立的亚投行将于今年年底开始运营。对于一个以改变全球经济未来走向为己任的机构来说，这绝非易事。如今已经有 50 多个国家签署了协定，因此亚投行的确可以称得上是一个全

气候变化影响最为严重、资源最为稀缺的地区之一。好的消息是，亚投行多边临时秘书处秘书长金立群表示，亚投行将会成为一个“高效、廉洁、绿色”的金融机构——“高效即成本效益高，廉洁指的是亚投行将对腐败持零容忍的态度，绿色则意味着亚投行将会促进经济发展”。

同今后十五年里做出的任何一项投资一样，亚投行的贷款项目将决定世界气候系统的未来。新气候经济委员会（the New Climate Economy Commission）指出，现代经济管理机制下的投资决策都会对风险进行考量。当然，考察项目风险不仅仅是中国以及支持亚投行的国家

的责任，那些接受资助的国家也应该证明，他们所建议的投资项目是可靠的、对环境具有修复性，同时也具有可持续性。对亚投行来说，如何推动这方面的发展也是对其可靠性的一场考验。

### “暗箱操作”

中国将协助引导亚投行通过制定先进的政策和措施，减少借贷双方的经济风险和金融风险。随着气候政策的不断强化，20国集团正委派其金融稳定委员会（FSB）对金融行业面临的气候相关风险展开公私调查。此前，英格兰银行已经针对本

国银行业化石燃料投资的相关风险展开评估工作。这是金融领域里的一项开拓性举措，也是亚投行需要考量的重要方向。

长期以来，随着地缘政治格局的动荡，全球一直没有机会塑造基础设施融资的未来。尽管亚投行及其创始成员国在制定决策时犹如身在“暗箱”之中，缺乏公开透明，但它仍然发挥着举足轻重的作用。亚投行将有利于双边关系的发展，并从过往的失败中吸取教训，将精确可靠的风险评估方法纳入现代化的经济发展途径。👉

丽兹·加拉赫，E3G高级政策顾问

# AIB lending faces test of credibility

The China-led investment bank will need to climate-proof its lending, a responsibility that extends to recipients as well as donors, writes E3G's Liz Gallagher

Liz Gallagher

As the ink dries during the Asian Infrastructure Investment Bank (AIIB) signing ceremony in Beijing, this institution is set to be 'the' hot topic in international finance. At the outset it has ruffled feathers within the US administration and been somewhat of an opaque entity. And even though this bank has the potential to radically alter international politics and climate stability, very little is known about how its founding members will make decisions over the next year.

The AIIB is both a direct response to the lack of progress inside the Bretton Woods Institutions in reforming their governance to reflect a changing balance of power, and an acknowledgement of the overwhelming demand from many countries for much-needed sources of infrastructure financing.

According to the latest reports, the China-led bank will be operational by the end of this year. No mean feat for an institution designed to engineer the future direction of the global economy. With over 50 countries now signed up, it is truly a global financial institution. It is likely to echo China's "One Belt, One Road" policy, and the AIIB states investments will focus primarily on energy, power, transport, telecom, agriculture, water supply, health, environmental protection, urban development and logistics.

As China's first foray into fashioning a multilateral institution, the AIIB has been subject to fairly intense media oversight and it poses some reputational risks for China in the speed of its establishment as well as its decisions on what to fund. Many observers will look at how it incorporates environmental and social safeguards into its projects. But what macro risks are the bank's founding members prepared to take and be exposed to?

## Lean, clean and green?

They will be investing in complex projects, in even more complex geographies. As China's own domestic economic reforms begin to integrate more sophisticated risk assessments into their decision making, these could well be echoed in their new international financial institutions. As climate impacts increase and development objectives are met, the availability of resources will become more challenging. Asia is one of the most vulnerable regions to climate and resource scarcity. The good news is that the bank's interim secretary general Jin Liqun has announced that the AIIB will be "Lean is cost effective; clean, this bank will have zero- tolerance on corruption; green means

“ The AIIB incorporates environmental and social safeguards into its projects. But what macro risks are the bank's founding members prepared to take and be exposed to? ”

it's going to promote the economy.”

In common with any investments made over the course of the next 15 years, the AIIB's lending will determine the future of the world's climate system. The New Climate Economy Commission has argued that modern economic management incorporates risk into its investment decisions. But of course, it will not only be China and those supporting the AIIB who could instigate such measures. Those countries receiving the funding should also demonstrate the investments they're proposing are sound, resilient and sustainable. How the AIIB encourages this will be a test of its credibility.

### 'Black box'

China could help guide the AIIB to be at the cutting edge of policies and practices to reduce the economic and financial risks to both the lenders and the recipients. The G20 is tasking its Financial Stability Board (FSB) to convene a public-private inquiry into the fall-out faced by

the financial sector as climate policies intensify. This builds on the work of the Bank of England which is currently assessing risks across the UK banking sector based on their exposure to investments in fossil fuels. This is pioneering work in the field of the finance, and therefore an important direction for the AIIB to consider.

It's been a long while since we've had such an opportunity to shape the future of financing for infrastructure alongside such fluctuating geopolitics. Despite the AIIB and member state decisions taking place within a metaphorical black box, the AIIB is still very much in play. The AIIB could be at the forefront of a more mutual relationship between countries and learn from the mistakes of the past, striving for a modern approach to economics, incorporating refined risk assessments into its endeavours. 

*Liz Gallagher is senior policy advisor at E3G.*

# 2015 最佳环境报道奖颁奖典礼

China Environmental Press Awards Ceremony



2015年中国环境报道奖获奖者和嘉宾合影  
Winning journalists and guests at the 2015 China Environmental Press Awards.



香港大学新闻与传播研究中心总监陈婉莹为“年度最佳环境记者奖”获得者陈杰颁奖  
Chen Jie, winner of the prize for 'Journalist of the Year', presented by Yuen Ying Chan, director of the Journalism and Media Studies Centre at Hong Kong University.



从左至右: 高胜科, 倪元锦, 张鹏, 尹自然(公民记者二等奖), 张红光, 代领者1, 黄芳, 代领者2, 代领者3, 代领者4  
From left to right: Gao Shengke (second prize winner), Ni Yuanjin (second prize winner), Zhang Peng (second prize winner), Yi Ziran (second prize winner for the best citizen journalist), Zhang Hongguang (second prize winner), surrogate awardee, Huang Fang (second prize winner), surrogate awardee, surrogate awardee, surrogate awardee.



颁奖会后的研讨会现场, 中外对话北京总编刘鉴强, 原北京市环保局副局长杜少中, 南方周末记者吕明合, 中国环境报社社长杨明森参与讨论  
Panel discussion after the Awards with: Liu Jianqiang, chinadialogue's editor in Beijing, Du Shaozhong, former deputy director of the Beijing Environmental Protection Bureau, Lv Minghe, journalist at Southern Weekly and Yang Mingsen, director of China Environment News.

SALUTE THE ENVIRONMENTAL JOURNALISTS

## 致敬环境新闻记者

也许多少年后在某个地方，  
我将轻声叹息将往事回顾：  
一片树林里分出两条路——  
而我选择了人迹更少的一条，  
从此决定了我一生的道路。

——节选自《未选择的路》，罗伯特·弗罗斯特

I shall be telling this with a sigh  
Somewhere ages and ages hence:  
Two roads diverged in a wood, and I—  
I took the one less traveled by,  
And that has made all the difference.

—— <the road not taken>, by Robert Frost



在第六届最佳环境报道奖颁奖典礼上，最佳环境报道奖评委、香港大学新闻及传播研究中心主任陈婉莹老师以此诗致敬环境记者。  
In the 6th China Environmental Press Awards ceremony, the judge, Prof. Yuen Ying Chan from JMSC of Hong Kong University, read this poem to honor the environmental journalists and their great work.

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