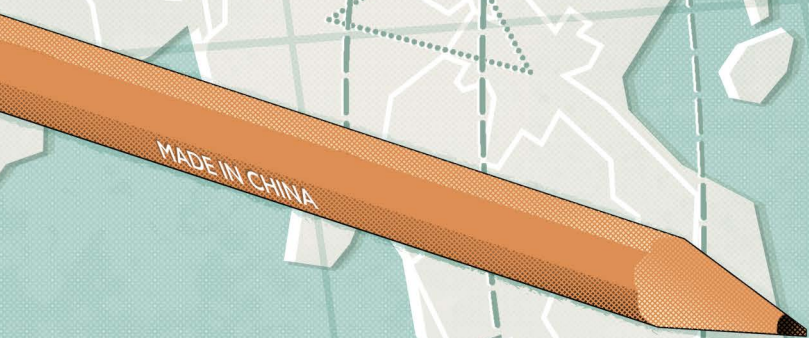
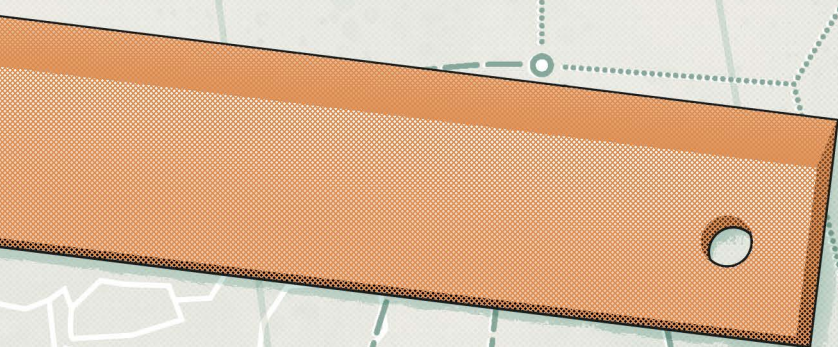


中国重塑经贸 版图绿色视角

China remakes the map

GREEN PERSPECTIVES



中外对话
chinadialogue

2016.10



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中国重塑经贸版图：绿色视角

中国日益增长的国际地位亦对全球环境有着重要的影响，但媒体上的相关报道并不多。从“走出去”战略到如今的“一带一路”倡议，高达数十亿的投资计划可能将从根本上重塑全球的基础设施以及贸易与发展的模式。中外对话本期特刊着眼于中国的海外影响，旨在推动“合作共赢”之外，更好地了解中国的崛起及其环境影响。

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CHINA REMAKES THE MAP: GREEN PERSPECTIVES

China's growing global importance has important, but under-reported, environmental impacts. Its "going out" strategy and, today, "One Belt, One Road" initiative, with many billions in investments planned, may fundamentally reshape global infrastructure and patterns of trade and development. This special issue of chinadialogue's print journal focuses on China's impacts overseas, aiming to push beyond the rhetoric of "win-win cooperation" and better understand the new landscape of China's rise and its environmental effects.

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中外对话
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“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 (www.chinadialogue.org.cn)，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。

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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 (www.chinadialogue.net), 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.

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“中外对话”对外投资特刊得到亨利·鲁斯基金会的支持。

This journal was supported by LUCE (Henry Luce Foundation)

卷首语

山姆·吉尔

中国“走出去”的雄心壮志由来已久，早在近20年前就已经成为一项官方政策。但过去一年里，中国的海外联系得到了极大拓展。主要途径有二：一是设立新的金融机构，如对所谓布雷顿森林体系构成挑战的亚洲基础设施投资银行（亚投行）和总部设在上海的新发展银行（通称为“金砖银行”）；二是在“一带一路”战略下提出各项引人注目的贸易、投资和能源开发倡议。

前者反映了中国在世界银行、国际货币基金组织等一些国际组织中难以施展拳脚的困境，同时上述这两个组织也日渐失去了他们的代表性。后者是一个寻求欧亚联通与合作（“丝绸之路经济带”）和海运网络扩展（“21世纪海上丝绸之路”）的战略性倡议。该协议不仅是一个新的宏伟外交政策，更体现了在“新常态”下，中国将一部分过剩产能转移到新市场的愿望。所谓“新常态”，即中国希望通过产业结构转型，实现高质量、可持续发展的经济增长放缓期。

中国的经济放缓对世界经济影响巨大，但大宗商品价格降低也给环境和治理改革带来了一个机遇窗口。在这个不断变化的语境中，我们在亨利·鲁斯基金会的慷慨资助下，奉上本期特刊。本期特刊汇集了内容广泛的宝贵观点，阐述了中国在发展融资、基础设施建设和资源开发中的行动如何改变世界，以及这些经验如何反过来开始改变中国的发展方式。

中国一再重申“共赢”合作，当前中资项目在项目地的环境争议不容忽视，但是目前这方面的报道仍然不足，在这个关键的节点，上需要给予该问题更多关注。本期特刊分析和阐释了从东欧到巴基斯坦中国资本是如何在全世界范围内继续支持燃煤发电的；中国企业如何身陷莫桑比克、巴西、圭亚那等国不可持续、而且

“中国一再重申“合作共赢”，但中资海外项目的环境争议不容忽视，媒体在这方面的报道仍然不足，在这个关键的节点上我们应该予以更多关注”

经常是违法的森林采伐活动；中国远洋渔业船队如何在补贴支持下过度捕捞；采掘业引导的开发如何导致阿富汗冲突延续；以及中国在蒙古资助修建的大坝为何会让“绿色丝路”出现问题。

同时，本期特刊的文章也为读者呈现了新的可能性。比如，尽管亚投行面临常驻董事会缺位带来的挑战，但它对国际贷款标准的采纳、以及非政府组织的参与有可能会达到意想不到的程度；能源企业在海外与公民社会深入接触，从而提升其声誉和安全；中国企业将采纳新的最佳实践自愿标准；而最有希望的则是中国投资可能会加速全世界的低碳转型。

的确，中国可以向着更好的方向改变形势、重塑格局。由于在可再生能源技术领域的持续投资，中国在风能和太阳能发电产品制造和创新方面，已经成为全世界的领导者。顶尖创新学者约翰·马修斯和谭浩最近总结说，这标志着“一个具有划时代意义的新能源范式”的开端。

在巴基斯坦的旁遮普省，佐菲·易卜拉欣报道说，中国企业正在建设一座10万千瓦的光伏

发电场，这是中巴经济走廊460亿美元（3070亿元）投资的第一个项目，也是世界最大太阳能电厂的试点阶段。我们还发现中国技术和投资正在加速印度和孟加拉国太阳能发电的腾飞，横穿两国的蒂斯塔河上正在建造一座创新的漂浮式太阳能电站。另一篇报道指出，中国主要食品进口商承诺为国内提供来自可持续种植的大豆。这一承诺将在遏制拉美森林破坏中发挥重要作用。

在巴黎议定书后全球努力减缓气候变化、中国继续努力在国内建设“生态文明”的语境下，对上述案例的理解只会变得更加重要。我们希望本期特刊中的文章能够深化这个理解。

作者简介：山姆·吉尔为中外对话执行主编，苏塞克斯大学研究员及查塔姆研究所副研究员，主编著作有《中国与环境：绿色革命》（Zed Books2013年出版）。

From the editor

Sam Geall

China's ambition to "go out" is not new – it is almost two decades since it first emerged as official policy. But the past year has seen the country significantly expand its overseas engagement: by supporting new financial institutions, such as the Asian Infrastructure Investment Bank (AIIB) and the Shanghai-based New Development Bank (known as the "BRICS Bank"), which challenge the so-called Bretton Woods system, and by announcing significant trade, investment and resources extraction initiatives under the "One Belt, One Road" strategy.

The former reflects the lack of progress in expanding China's role in international organisations, such as the World Bank and IMF, which appear increasingly unrepresentative. The latter – which seeks to build connectivity and cooperation across Eurasia (the "Silk Road Economic Belt") and an expanding network of sea lanes (the "21st-century Maritime Silk Road") – suggests not only a newly assertive foreign policy, but also a desire to shift some of China's overcapacity to new markets in the "new normal": a period of slowing growth that China hopes will see a structural shift towards higher-quality, sustainable development.

China's slowdown has had a big impact on the global economy. But low commodity prices could present a window of opportunity for environmental and governance reforms. In this changing context, we present this special edition of our print journal, generously supported by the Henry Luce Foundation, which presents a range of important perspectives on how China's activities in financing development, building infrastructure and extracting resources are changing around the world, and how these

experiences are, in turn, starting to change Chinese approaches to development.

Beyond the oft-repeated rhetoric of "win-win" cooperation, the environmental aspects of China's rise remain under-reported and require greater attention at this critical juncture. The reporting and analysis in this special issue explain how Chinese capital continues to support coal-fired power generation around the world, from eastern Europe to Pakistan; how Chinese companies are implicated in unsustainable and often illegal deforestation from Mozambique to Brazil and Guyana; how fuel subsidies support overfishing by Chinese distant water fishing fleets; how extractives-led development sustains conflict in Afghanistan; and why Chinese funded dams in Mongolia might call the "green Silk Road" into question.

"Beyond the oft-repeated rhetoric of "win-win" cooperation, the environmental aspects of China's rise remain under-reported"

But the articles in this issue also bring to light new possibilities: that the AIIB, for example, might embrace international lending standards and welcome NGO participation to an unexpected degree, even while its lack of a resident board presents a challenge; that energy companies may be

engaging with civil society overseas to improve their reputation and security; that Chinese companies may embrace new voluntary standards of best practice; and perhaps most promisingly, that Chinese investment might speed the low-carbon transition around the world.

Indeed, China could change the game – and remake the map – for the better. Thanks to sustained investment in renewable energy technologies, the country has emerged as world leader in manufacturing and innovating the products needed to generate electric power from the wind and the sun. Leading innovation scholars John Mathews and Hao Tan recently concluded that this could mark the beginning of “a new energy paradigm with epochal implications.”

In Pakistan’s Punjab, Zofeen Ebrahim reports on the Chinese company building a 100-megawatt photovoltaic solar farm, the first energy project under the US\$46 billion (307 billion yuan) China-Pakistan Economic Corridor, and the pilot stage of a plan to build the world’s largest solar farm. We also explore how Chinese technology and investment is accelerating the take-up of solar generation in India and Bangladesh, where an innovative floating solar plant is being built on the Teesta River. Another report explains how major Chinese food importers might play an important role in the fight against deforestation in Latin America by committing to supply their domestic market with sustainably sourced soya.

In the context of global efforts to mitigate climate change after the Paris accord, and China’s renewed drive to create an “ecological civilisation” at home,

understanding these examples becomes only more important. We hope the articles in this special issue will advance that understanding.

Sam Geall is executive editor of chinadialogue, Research Fellow at University of Sussex and an Associate Fellow at Chatham House. He edited China and the Environment: The Green Revolution (Zed Books, 2013).

目录

金融

- 12 值得反思的中国海外煤炭项目**
尽管中国高层领导人多次承诺，将帮助发展中国家实现绿色增长，但中国一方面减少了本国国内的煤炭使用，另一方面其国有企业 and 银行却大举推动海外煤炭使用扩张
贝丝·沃尔克

- 20 巴基斯坦扩大煤炭开采让塔尔沙漠村民痛苦连连**
由中方支持进行的塔尔沙漠煤炭开采与肮脏能源电厂开发将让当地成千上万的贫困居民背井离乡。同时，已经在干旱天气下岌岌可危的地下水资源也可能就此耗尽
艾马尔·古里罗

- 26 亚投行在谨慎前行中彰显雄心**
亚投行宣布的首批4个项目中，3个与其他多边银行合作开展。随着越来越多国家的加入，亚投行投资触角将突破“一带一路”沿线国家
刘琴

- 32 亚投行为何需要常驻董事？**
一个常驻董事会将有助于解决公民社会中的各种关切，亚洲开发银行前美国执行董事罗伯特·奥尔在本文中指出。
罗伯特·奥尔

基础设施

- 36 贝卢蒙蒂输电线项目将清除广袤植被**
2000公里的输电线工程面临敏感的生物群落和复杂的环境法律两大挑战
米尔顿·莱亚尔

- 40 中国协助巴基斯坦建造全球最大太阳能电站**
中国公司正在旁遮普沙漠中建造规模巨大的太阳能电站，这会解决巴基斯坦不断加剧的能源危机的最有效方式吗
佐费恩·易卜·拉欣

- 50 贝加尔湖生态环境受到威胁，中国丝绸之路项目叫停**
尤金·西蒙诺夫认为，中国投资的大坝恐对贝加尔湖生态系统造成破坏，凸显出新丝绸之路沿线开发缺乏环境保护
西蒙诺夫·尤金

- 54 亚马逊热带雨林中即将崛起新城**
一条由中国建设的西起秘鲁太平洋沿岸、东到巴西大西洋沿岸的新铁路将横穿原著居民聚居地，带动沿线多座新城的建设
米尔顿·利尔

- 59 中国赴缅投资面临更加强硬的法律**
继饱受争议的密松水电站事件之后，昂山素季对高风险项目投资者的要求愈发苛刻
薇姬·鲍曼

资源

- 66 中国能帮莫桑比克挽救森林吗？**
莫桑比克正在进行姗姗来迟的打击腐败和盗伐工作
宁卉
- 74 求解中国远洋渔业的“输血依赖症”**
中国是否应该继续为远洋渔业提供燃油补贴？该问题凸显了补贴政策与环保目标之间的紧张关系
冯灏
- 78 非洲正影响着中国石油企业**
苏丹和南苏丹不断升级的冲突正促使中印两国的石油企业担负更大的责任
贝丝·沃尔克
- 83 非法青金石开采助长阿富汗塔利班组织**
史蒂芬·卡特表示，作为青金石这一宝石的主要终端市场，中国将有可能帮助缓解阿富汗北部由矿业引起的冲突
史蒂芬·卡特
- 87 中国水泥业转战塔吉克斯坦**
随着国内利润的枯竭，中国水泥企业在中亚地区寻找新商机
德克·范德克雷
- 92 柏杉林，一家在圭亚那拥有多重利益的中国采伐企业**
鉴于这家主导企业正在进行利益转移，圭亚那政府必须采取强制法律措施保护该国林业环境
杰斯特·布尔坎

新参与者

- 98 印度太阳能之梦仰仗中国出口**
中国制造业产能过剩导致的太阳能光伏电池和其他设备价格下滑，使得印度太阳能产业获得迅猛发展
苏姆亚·萨卡尔
- 102 海外中国企业需要“行为准则”**
海外中国企业应采用自愿性可持续标准，以此提高自身形象，推动低碳发展
曹嘉涵
- 108 中国对可持续大豆的需求或有助于遏制森林采伐**
业内专家表示，通过向国内市场供应可持续产品，中国的主要食品进口商能够在抗击森林采伐过程中起到重要作用
阿达士·瓦帕戎尼
- 112 中国应该让环保标准也“走出去”**
专家认为，推动“一带一路”战略实施，规避企业海外投资风险，中国应当设置海外投资环保标准
刘琴
- 116 书评：《非洲养活中国？》**
世界顶尖中非关系专家的最新著作揭穿了关于中国在非洲投资的种种流言，并描绘了中国投资者的“心理”
翁晓雪

Contents

Finance

- 16** **China stokes global coal growth**
China cuts coal at home but state owned companies and banks drive new coal expansion overseas, despite top level promises of green growth for developing countries
BETH WALKER
- 23** **Pakistan's coal expansion brings misery to villagers in Thar desert**
Coal excavation will displace thousands of people already living in poverty and deplete groundwater in a region ravaged by drought
AMAR GURIRO
- 29** **China-led development bank careful to co-operate with critics**
AIIB is determined to avoid mistakes and "reputational damage" in its first projects
LIU QIN
- 34** **Why the Asian Infrastructure Investment Bank needs resident directors**
The new bank could allay civil society concerns by bringing in a permanent board
ROBERT ORR

Infrastructure

- 38** **Belo Monte power lines will clear extensive vegetation**
2,000km transmission line aims to navigate sensitive biomes and complex environmental laws
MILTON LEAL
- 43** **China helps Pakistan build world's largest solar farm**
Chinese companies are building a massive solar power station in the Punjab desert, but is the project the most effective way of solving Pakistan's escalating energy crisis?
ZOFEEN T. EBRAHIM
- 52** **Silk Road project suspended over threats to Lake Baikal**
The China-funded dam highlights lack of green safeguards along the New Silk Road
EUGENE SIMONOV
- 56** **Fears raised over new Amazon railroad**
A Chinese railway line linking the coastlines of Peru and Brazil will create towns and cut through indigenous settlements
MILTON LEAL
- 62** **China faces tougher laws in Myanmar**
In the wake of the controversial Myitsone dam, Aung San Suu Kyi is demanding more from investors involved in high risk projects
VICKY BOWMAN

Resources

- 70 Can China help Mozambique fight deforestation?**
The southern African country is belatedly cracking down on corruption and illegal deforestation
NING HUI
- 76 China's deep sea fishing industry relies on fuel subsidies**
China's distant water fleets would be bankrupt without top ups to pay for diesel
FENG HAO
- 80 How Africa is changing Chinese oil companies**
Conflict in Sudan and South Sudan has forced Chinese and Indian oil companies to become more responsible global citizens
BETH WALKER
- 85 Illegal mining for Chinese market fuels Taliban in Afghanistan**
China can help reduce conflict driven by mining of lapis lazuli in northern Afghanistan
STEPHEN CARTER
- 89 China shifts polluting cement to Tajikistan**
Chinese cement companies are scouring Central Asia for new opportunities as profits dry up at home
DIRK VAN DER KLEY
- 95 Bai Shan Lin: the Chinese logger with multiple interests in Guyana**
Government must enforce laws to ensure forest conservation as dominant company transfers interests
JANETTE BULKAN

New players

- 100 India's solar dream rests on Chinese imports**
India's rush to add solar power is being aided largely by a manufacturing overcapacity in China
SOUMYA SARKAR
- 105 Chinese companies need "code of conduct" overseas**
Chinese companies building overseas should adopt voluntary sustainability standards to boost their image and drive low-carbon development
CAO JIAHAN
- 110 China's taste for sustainable soya could help curb deforestation**
Saving the Amazon will depend partly on China's soya importers greening their supply chains
ARDASH VARTPARONIAN
- 114 How to build environmental protection into 'New Silk Road'**
Jin Jiaman of GEI suggests ways to improve environmental protection in China's One Belt, One Road infrastructure projects after the 'green finance' gets backing from G20 leaders in Hangzhou
LIU QIN
- 118 Book Review: Will Africa feed China?**
The latest book by the world's leading expert on China in Africa debunks the myths and presents the human side of Chinese investors
WENG XIAOXUE

值得反思的中国海外煤炭项目

尽管中国高层领导人多次承诺，将帮助发展中国家实现绿色增长，但中国一方面减少了本国国内的煤炭使用，另一方面其国有企业和银行却大举推动海外煤炭使用扩张

贝丝·沃尔克

在国有银行贷款的支持下，许多中国国有企业都开始积极投身海外燃煤电厂的建设。换句话说，正是中国的企业和银行在持续推动全球煤炭使用扩张。尽管中国国家领导人曾经承诺要为发展中国家输送清洁能源和低碳基础设施，然而现在看来好像并非如此。

作为全球最大的碳排放国，中国希望重新将自己打造成国际绿色能源标杆国家。在2015年9月中美两国发表的白宫联合声明中，习近平主席同意对海外高污染、高碳排放公共投资项目实行严格管控。在2016年联合国巴黎气候峰会上，中国表示将在2030年前实现温室气体排放达到峰值，并且逐步减少对煤炭的依赖。上述承诺得到了与会各方的广泛好评。此外，中国制造商同时还是全球廉价太阳能与风能设备组件的主要供应商。

然而，中国对印度尼西亚、巴基斯坦、土耳其、巴尔干半岛，以及非洲和拉丁美洲等地一系列拟建或在建燃煤电厂的支持，却让上述努力的效果大打折扣。这将极大地刺激全球温室气体排放，导致一些发展中国家未来几十年仍然被锁定于化石燃料能源系统中。

中外对话与中东欧（简称CEE）银行监测网络最新收集的数据显示，2015年以来有不少中国燃煤电厂项目宣布达成协议并已进入开发阶段。中东欧银行监测网络公共财政政策官员王娃娃表示：“这些项目大多获得了中国政策性贷款的支持，设备提供商也都是中国几家最大的电厂设备制造商。”

目前中国银行与企业参与的燃煤电厂项目至少有79个，预计总装机容量至少5.2亿千瓦，甚至超过了美国2020年前预备关闭的燃煤装机。

作为“一带一路”战略规划的一部分，中国政府鼓励国有煤炭企业和混凝土、钢铁、水泥等能源密集型产业积极“走出去”，希望借此为中国企业打造全新机遇，为联通中欧甚至更大市场进行基础设施建设。

全新路径

中国国内总体经济形势趋缓，能源密集型工业发展遭遇重创，导致中国能源电力行业饱受产能过剩的影响，而这也是中国能源电力行业走向海外的一大动力。目前中国现有发电产能使用率创下自1978年以来的最低记录。绿色和平预计，目前中国任何时段都有超过半数的燃煤发电能力都处于闲置状态。

中国政府一直在努力削减燃煤发电和大气污染物排放，然而省级地方政府的短视政策，以及煤炭价格下滑和政府固定电价的反常刺激却依旧催生了不少新建电厂项目。

此外，中国五大发电集团之一的华能集团在其五年计划中透露，希望在2020年前实现海外项目利润大幅度提升。华能集团的燃煤项目将主要集中在南亚、东南亚、俄罗斯和东欧地区，水电项目集中在南亚、非洲和欧洲地区，而风能与太阳能项目则将植根欧洲与拉丁美洲地区。华能集团的战略方案指出，战争、恐怖袭击以及腐败问题都将影响其海外项目进展，但对环境风险问题却只字未提。

这一切都让我们觉得中国可能会就此走上发达国家的老路——随着自身在全球价值链中地位的提升，简单地将碳排放输送到国外，这将给本就脆弱的国际减排进程造成威胁。

但也有业内人士指出，中国的燃煤发电项目采用的是相对节能的技术，会给项目所在国带来可观的环境益处，而这些高效措施可能是他们原本无法负担的。但是从即将投建的项目数量来看，其排放将抵消“超临界”燃煤发电技术所带来的任何减排收益。而且，虽然中国针对国内电厂新出台了严格的环境监控标准，不过这些标准并不适用于海外项目。

2015年前9个月，全球煤炭使用量同比下降4.6%。为了防止未来受制于碳密集型资源使用模式，后续行动仍旧刻不容缓。据普林斯顿环境研究所学者菲利普·阿曼预计[报告草案]，全球新增电力供应中有至少1/3来自燃煤发电（11.61/31.65亿千瓦），而这其中又有近9成来自快速发展的亚洲经济体国家。

由于世界银行和许多发达国家相继退出煤炭项目投资，中国企业这才得到了“大施拳脚”的机会。2013年，世界银行对煤炭项目投资做出了严格限制。而去年，包括日本与韩国在内的多个经济合作与发展组织（简称OECD）国家也承诺，除个别极端贫困的国家之外，将停止为海外燃煤发电项目提供公共融资。

美国旧金山气候政策行动组织早前的一份研究发现，2010至2014年间中国累计海外燃煤电厂投资总额高达380亿美元，宣布拟建的项目投资达到720亿美元（尽管并非所有这些项目都已敲定）。

亚洲变身全球热点

中国在亚洲的碳足迹覆盖面非常广。阿曼早前与他人联合撰写的一篇文章显示，2015年中国在其他亚洲国家建设的电厂中，燃煤发电总量比例高达68%，而且这个数字未来应该还会继续上升。与此相反，在没有获得中方支持的国家，其燃煤电厂只占新增发电容量的32%。文章指出，中国在南半球支持建设的绝大多数电厂项目都是以燃煤为主的。

自2000年起，中国已经取代日本成为全球领先的煤炭设备出口商，通过为能源匮乏的国家提供折扣价格，将自身在全球燃煤发电出口市场上的份额从0提升到了37%（8500万千瓦）。实际数字可能还要高得多，因为数据缺失部分所涉及的出口应该基本上都来自中国。

印度计划在2031年前将燃煤发电量增加一倍，而中国则是印度最大的设备提供商。印度现有私人电力项目中，有60%的设备都由中国企业提供。而至少有19个印度电力项目中都可以看到中国企业的身影，这其中规模最大的是古吉拉特邦的400万千瓦大型电站项目，该项目由华能集团建设，并得到了中国工商银行的资金支持。

“作为“一带一路”战略规划的一部分，中国政府鼓励国有煤炭企业和混凝土、钢铁、水泥等能源密集型产业积极“走出去””

丝绸之路上的煤炭走向

从历史上来看，煤炭电力资金主要是流向印度、印度尼西亚和越南三个国家，但是如今中国资金的目的地更加多样化，有总价数百万美元的项目计划落驻巴基斯坦、孟加拉国、柬埔寨和哈萨克斯坦。沿着“一带一路”走廊继续前行，土耳其和巴尔干地区也成为了煤炭投资的热点地区。而且，这些地区的当地企业也表现得非常活跃。这些国家并不受欧盟严格的环境法规以及国际资金限制的约束。

这些获得资金与设备的国家往往环境法规监管薄弱，腐败盛行。仅仅在巴基斯坦，中国就通过中巴经济走廊项目建设了至少780万千瓦的火力发电设施。塔尔沙漠褐煤煤田是目前全球几大尚未开采的煤田之一，而上述项目开发就包括这个煤田的开采。然而，这个项目同样也遭遇了当地民众的街头抗议，并被诉至法庭。其中最著名的就是一名7岁女孩起诉当地政府的案件。这名小女孩诉称，这个煤田开采项目损害了她这一代居民的健康生存权。她在起诉书中表示，这个项目无视风能和太阳能的巨大发展潜力，将使巴基斯坦的碳排放量大幅上升。

由于萨希瓦尔燃煤电厂属于中巴经济走廊项目（简称CPEC）下的优先发展项目，有关方面完全无视旁遮普邦高等法院从环境角度出发做出的反对该电厂建设的判决。巴基斯坦不仅能源电力严重匮乏，国家总体经济状况也不明

朗。以萨希瓦尔项目为例，为将进口煤炭从港口城市卡拉奇运送过来，需要先建设一条全长1000公里、总价数十亿美元的铁路。请愿的当地民众表示，该项目带来的污染已经突破了该地区的国家空气质量污染上限。

进绿色证券的发展进程，否则中国的资金和设备还是会被应用在发展中国家的高污染化石燃料行业中，而中国成为超级绿色能源大国的梦想也恐难实现。

透明度严重缺失

与其他同行相比，中国银行严重缺乏透明度。王娃娃（音）表示：“中国的政策性金融机构还没有采用信息公开和问责机制，因此无法保证受影响群体的合法权益。而且无论是中国海外能源基础设施建设项目投资，还是由此带来的经济、社会和环境问题，都没有一个专门的监督机构，这就使得状况进一步恶化。”

中外对话和银行监测网络通过企业、银行年报以及现有商业数据中的信息整理出了这份地图。在多数情况下，金融数据是不对外发布的。

展望未来

目前中国并无计划逐步减少海外煤炭投资。国际NGO“自然资源保护委员会”的气候、能源与环境高级顾问杨富强表示：“中美联合声明语焉不详，很难落实。”

杨富强目前正与团队共同制定一份“可供中国金融机构采用和落实”的政策性指南。目前他们正在准备向政府部门提交建议。

杨富强说：“目前我们正在仔细研究过去两年的经验，看看我们能否从中有所收获并加以改进。毕竟，“一带一路”是一个全球性战略措施，没有这个措施作保障，投资者将会面临包括环境和气候变化在内的多重风险。如果我们找不到解决方案，我们将会面临当地居民的重重抵制。”

他还指出，中国企业在削减二氧化碳排放和为当地居民创造就业的过程中已经遇到了不少环境问题。比如在孟加拉国，去年，中国企业为了在沿海地区兴建电厂而非法征地的行为就引发了当地村民的抗议。

中国已经有越来越多的银行机构开始考虑绿色借贷模式，并且他们对绿色金融投资的兴趣也愈来愈浓厚。杨富强在“自然资源保护委员会”的工作正是顺应了这一趋势。中国是世界上最大的绿色证券发行国。但是除非能够快速推

中国参与的海外采煤项目

China's overseas coal projects

中外对话与中东欧银行监测网络最新收集的数据显示，2015年以来有不少中国燃煤电厂项目宣布达成协议并已进入开发阶段。

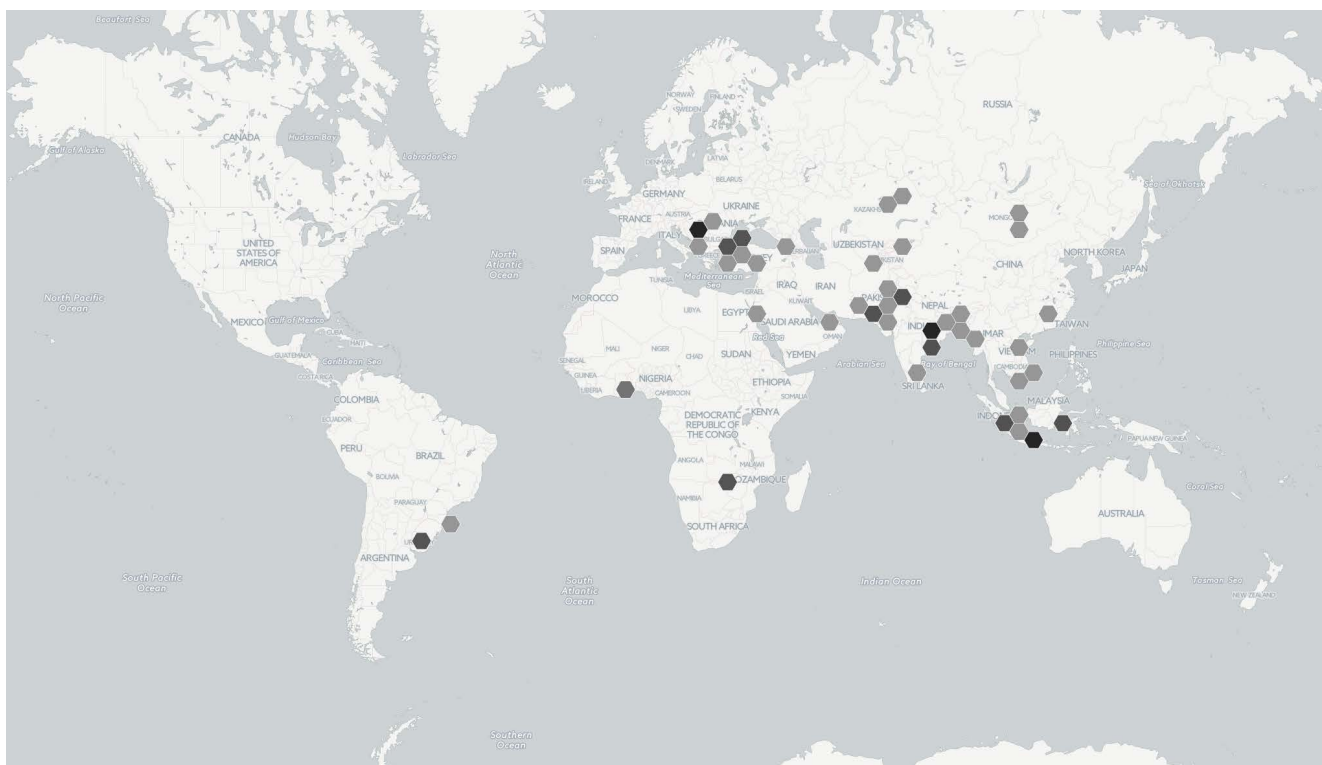
中东欧银行监测网络公共财政政策官员王娃娃（音译）表示：“这些项目大多获得了中国政策性贷款的支持，设备提供商也都是中国几家最大的电厂设备制造商。”

chinadialogue.org.cn/pages/ch/coal-overseas

New data collected by chinadialogue and the CEE Bankwatch Network shows that since 2015, many new Chinese coal plant project deals have been announced and are under development.

“The majority of these projects are under loan consideration by China's policy-driven financing, and supplied by equipment from the country's largest power generation manufacturers,” said Wawa Wang, public finance policy officer at CEE Bankwatch Network.

chinadialogue.net/pages/en/coal-overseas



China stokes global coal growth

China cuts coal at home but state owned companies and banks drive new coal expansion overseas, despite top level promises of green growth for developing countries

Beth Walker

Chinese companies and banks are continuing to drive global coal expansion, as state-owned companies, backed by state loans, build coal-fired power plants across the world. This is despite commitments from China's top leaders to deliver clean energy and low carbon infrastructure for developing countries.

The world's largest carbon emitter aims to reposition itself as a global green power. In a joint US-China statement at the White House in September 2015, President Xi Jinping agreed to strictly control public investment for overseas projects with high pollution and carbon emissions. China won praise for promising to peak its greenhouse gas emissions by 2030 at the UN climate summit in Paris in 2015 – and trying to wean itself slowly off coal. Chinese manufacturers are now major suppliers of cheap solar and wind modules worldwide.

However, these efforts are being undercut by Chinese backed coal power plants planned and under construction from Indonesia to Pakistan, Turkey to the Balkans –as well as in Africa and Latin America. These could boost global emissions and lock developing countries into fossil fuel intensive energy systems for decades.

New data collected by chinadialogue and the CEE Bankwatch Network shows that since 2015 many new Chinese coal plant project deals have been announced and are under development. “The majority of these projects are under loan consideration by China's policy-driven financing, and supplied by equipment from the country's largest power generation

manufacturers,” said Wawa Wang, public finance policy officer at CEE Bankwatch Network.

Chinese banks and companies are currently involved in at least 79 coal fired generation projects, with a total capacity of over 52 GW, more than the 46 GW of planned coal closures in the US by 2020.

Beijing has encouraged state owned coal companies and energy intensive industries such as concrete, steel and cement, to “go out” as part of the “One Belt, One Road” (OBOR) initiative. This aims to open up new opportunities for Chinese companies and to build infrastructure to link China to European markets and beyond.

NEW OUTLETS

The overseas push comes as China's power sector is struggling with severe overcapacity with the slowing economy and slashing of energy intensive industries at home. This has led to the lowest use of existing power generation capacity since 1978. Greenpeace estimates that at any given moment, more than half of China's coal capacity lies idle.

Yet despite central government attempts to reduce its coal fired power and the toxic smog it produces, there is a surge in new approvals for power plants as a result of pushback from provincial authorities and the perverse incentives created by falling coal prices and government fixed electricity prices.

In addition, Huaneng– one of five state owned energy giants – plans to significantly boost its share of profits from overseas projects by 2020, according

to its five year strategy. Its expansion will focus on coal in South and Southeast Asia, Russia and Eastern Europe; hydropower in South Asia, Africa and Europe; and wind and solar in Europe and Latin America. While the corporate strategy highlights overseas risks from war, terrorist attacks and corruption, environmental risks are not mentioned.

All this contributes to concern that China will follow developed countries' example and simply export its carbon emissions as it moves up the global value chain, threatening any fragile international progress on emissions reduction.

Industry insiders argue that China's coal advance will bring tangible environmental benefits by providing more efficient technologies than countries could otherwise afford. But the number of new projects in the pipeline will counteract any modest emissions savings made by "supercritical" technology, especially since China's new, stringent standards for domestic plants do not apply to exports.

While global coal use is thought to have fallen by 4.6 % year on year through the first nine months of 2015, urgent action is still needed to avoid locking in carbon intensive resource use in the future. A third of the new capacity in the global pipeline is coal (1161/3165 GW) according to estimates a forthcoming paper by Phillip Hannam, a scholar at the Princeton Environment Institute – and nearly 90% of this is in rapidly growing Asian economies.

China's expansion comes as the World Bank and many developed countries have stepped back from funding dirty coal. In 2013 the World Bank strictly limited coal funding and last year OECD countries including Japan and Korea promised to end public financing of coal plants overseas except to the poorest countries.

An earlier study from the San Francisco-based Climate Policy Initiative found that China had invested as much as US\$38 billion in coal fired power plants overseas between 2010-2014 and had announced plans for another US \$72 billion worth of projects (though not all with firm commitments).

ASIA – A GLOBAL HOTSPOT

China's coal footprint is particularly large in Asia. In 2015 coal-fuelled plants accounted for 68% of generating capacity built by China in the rest of Asia, and in future this is set to rise, according to an earlier paper co-authored by Hannam. In contrast, where countries built capacity without Chinese support, coal-fired plants made up only 32% of new capacity. Worldwide, the majority of China's support to the power sector in the global south was funnelled into coal, says the paper.

Since 2000, China has overtaken Japan to become the leading exporter of coal equipment – offering "bargain" prices to energy-starved countries and increasing its share of global coal exports from zero to 37% (85GW). It may be much higher, since, where data is missing, exports are largely attributable to China.

China is the largest supplier of equipment to India, which is expected to double its coal capacity by 2031. Chinese firms account for 60% of the equipment ordered in the private sector and are involved in at least 19 projects across the country, the largest being a massive 4,000 MW plant in Gujarat, built by Huaneng and financed by the Industrial and Commercial Bank of China (ICBC)

“In 2015 coal-fuelled plants accounted for 68% of generating capacity built by China in the rest of Asia”

COAL FLOWS ALONG THE SILK ROADS

Historically, coal power financing has predominantly flowed to India, Indonesia and Vietnam – but now China is diversifying with multimillion dollar projects planned in Pakistan, Bangladesh, Cambodia and Kazakhstan. Further along the OBOR corridors, coal hotspots are emerging in Turkey and the Balkans, where local players are also active. These countries lie outside more stringent European Union environmental regulations and the limitations placed on international finance.



Image by Iwona_Olczyk

The money and equipment flow into countries where environmental regulations and laws are weak and corruption endemic. In Pakistan alone, China is building at least 7,800 MW of new coal capacity under the China Pakistan Economic Corridor project. This includes the excavation of the dirtiest kind of lignite coal in the Thar desert – one of the world’s largest untapped coal deposits. The projects have met with protest on the streets and in the courts. In a land mark case, a seven-year old girl has sued the government for violating the rights of her generation to a healthy life by developing coal. In her petition she argues this will dramatically increase Pakistan’s carbon emissions, while ignoring the potential of wind and solar.

The Punjab high court’s objections to the Sahiwal coal plant on environmental grounds were brushed aside in 2015, since it is being fast-tracked under the CPEC. While Pakistan is desperately short of power, the economics are dubious. Sahiwal will require billions of dollars investment in new rail

infrastructure to haul imported coal 1,000 km from the port city of Karachi. Petitioners say pollution around the site has already breached national air quality limits.

“In Pakistan alone, China is building at least 7,800 MW of new coal capacity under the China Pakistan Economic Corridor project”

NO TRANSPARENCY

Compared to others, Chinese banks are particularly opaque: “Policy driven Chinese financial institutions have yet to adopt information disclosure and accountability policies to protect the rights of affected communities. The situation is further

aggravated when there is no institutional oversight of Chinese overseas financing of energy infrastructure projects and the economic, social and environmental problems they cause,” says Wang.

The information behind the map was collected by chinadialogue and Bank Watch from company and bank annual reports and available commercial data. In many cases financial data is unavailable.

A WAY FORWARD

China has no road map for phasing out overseas coal investment. “The US-China joint statement is vague and can’t be implemented,” says Yang Fuqiang, senior adviser on climate, energy and environment at The Natural Resources Defense Council, an NGO.

He is working with a team to develop green guidelines – “an implementable policy that can be adopted by Chinese financial institutions.” They are preparing their recommendations for the government at the moment.

“Now we are trying to investigate experiences from the past two years to see what we can learn and improve because OBOR is a big global strategy, and without this, investors will face many risks, including environment and climate change risks,” says Yang. “If we don’t find solutions, we will find heavy resistance from local people.”

Chinese companies overseas are already running into environmental problems as they try to reduce carbon dioxide emissions and provide jobs for local people, said Yang. In Bangladesh, police opened fire last year on villagers opposing the illegal seizure of land for the construction of the power plant by Chinese firms on the coast.

Yang’s work at the NRDC builds on a growing movement within China to hold Chinese banks to account on their green lending credentials – and a growing interest in green finance from institutions themselves. China is the world’s largest issuer of green bonds, but unless progress is made fast, Chinese money and equipment will be used to lock in dirty fossil fuel in developing countries and tarnish China’s ambitions to become a green superpower.

巴基斯坦扩大煤炭开采让塔尔沙漠村民痛苦连连

由中方支持进行的塔尔沙漠煤炭开采与肮脏能源电厂开发将让当地成千上万的贫困居民背井离乡。同时，已经在干旱天气下岌岌可危的地下水资源也可能就此耗尽

艾马尔·古里罗

塔尔罗·海尔波多村地处巴基斯坦东南部的塔尔沙漠之中，位于港口城市卡拉奇以东大约400公里的地方。在这里，你既能听到孔雀争鸣，也会看到挂着铃铛在吃草的山羊与奶牛。妇女们身着艳丽的服装，头顶大水罐从沙丘中间慢慢走过。

这个村子里大概有1000多户人家，大多数都属于海尔波多部落的分支。然而，这里的宁静恐怕要被打破。一家中巴合资企业看上了沙漠之下丰富的煤炭储备，并且准备在这里建设大型燃煤电厂，以满足巴基斯坦的能源需求。

马哈茂德·海尔波多一家在这个村子已经住了几个世纪了。就像其他居民一样，海尔波多是一个牧人，但他也会在雨季的时候耕田。1990年有政府官员来到这里进行勘探，并在海尔波多村的下面发现了储量惊人的煤炭资源。

信德省塔尔沙漠的褐煤储量高达1750亿吨——应该算是目前世界上尚未开采的最大煤田之一。这里不仅是世界上人口密度最大的沙漠地区之一，还有着许多世界文化遗产和濒危物种。塔尔地区的9.1万居民中，绝大多数都处于贫困状态，而且很容易受到极端天气影响。而其中有25%的人都生活在即将开采的煤田地区。他们本以为自己可以从这次资源开采中受益，然而事实并非如此。

他告诉第三极：“一开始我们很高兴，因为别人都说我们要发财了。但现在一切都像噩梦一样，这些黑色的金子就像黑色的毒蛇一样，要把我们从世代栖息的土地上驱逐出去。”

整个项目2015年才正式开始动工。因为正是这一年，总额460亿美元的中巴经济走廊(CPEC)规划才正式将塔尔煤炭项目纳入其能源与基础设施建设计划中来。这其中就包括建设8座燃煤电厂和3000公里的公路、铁路与管道网络，将石油和天然气从阿拉伯海沿岸的瓜达尔港输送到中国新疆西北部的喀什。

2015年12月，中国批复了总价12亿美元的塔尔沙漠地表煤炭开采和66万千瓦发电站项目建设计划。整个煤炭储区被划分为12个区块，每个区块煤炭储量20亿吨。在项目第一阶段，信德省政府将区块II分配给了信德省昂国煤炭开采公司简称(SECMC)，允许后者开采总量15.7亿吨的煤炭并建设一座66万千瓦的发电站。该电站预计2019年6月起向巴基斯坦国家电网供电，后期发电量预计可增至132万千瓦。

一家名叫中国机械设备股份有限公司简称(CMEC)的中国国企将为本次煤炭开采、发电站的建设和运营提供所需设备和技术支持。而当地企业则提供人力资源，并负责管理和电力输配工作。信德省昂国煤炭开采公司(SECMC)表示，这个项目将为当地创造200个技术岗位和1600个基层岗位。但是，当地居民却抗议称，该公司的基层岗位并没有面向他们招工。包括工程师、开采人员和技术专家在内，却有300多名中方员工。

当地人的恐慌

中方工程队已经开始对第一个矿井进行开采。在第一阶段，信德省昂国煤炭开采公司将

对5个目前位于2号区块的村庄进行搬迁，其中包括塔尔罗·海尔波多村。

信德省昂国煤炭开采公司已经对占用的宅基地和农耕地进行了补偿。该公司首席执行官沙姆斯丁·艾哈迈德·沙伊克表示，公司将竭尽所能帮助这些村民。

他告诉第三极：“我们将建设一批全新的模范村镇，学校、医疗、饮用水、过滤设备等基础设施一应俱全，而且我们还会开辟专门的牲畜放牧区。”

他说，公司给予村民的土地价格高于市场价，大约为每英亩18.5万巴基斯坦卢比（约合1900美元）。而当地居民却认为，这个价格并没有将土地本身附加的高环境价值计算在内，而且他们也不愿意被安置到新村镇上去，况且这些村镇的位置到现在还没确定。

塔尔罗·海尔波多村居民穆罕默德·哈桑·海尔波多说：“几百年来，我们世代都居住在这个村子里，在这里度过了自己的童年，我们的父辈也都葬在这里。要让我们离开这里实在是太难了。”

一位村民也说：“这里每亩土地上都有我们种的树。即便是干旱季节，我们也可以靠这些树来喂养牲畜。当雨季来临的时候，我们也会耕田，而且收成还不错。这些土地是我们赖以生存的永久资源。”

煤炭项目还会抢占村民们的畜牧用地。塔尔沙漠地区总共养殖了大约700万头奶牛、山羊、绵羊和骆驼，为信德省提供了大约6成的奶制品、肉制品和皮毛制品。

村民们担心这个项目将会成为塔尔沙漠地区的环境灾难。为了给矿井开采和道路铺设让路，项目建设企业将会砍掉上万棵本土树木，这将对当地生态环境造成毁灭性影响。

信德省昂国煤炭开采公司的一位官员表示，公司每砍伐一棵树木，就会栽种10棵新树。截至目前，昂国煤炭已经在格林公园的18英亩土地上栽种了1.2万棵树，未来两年这一计划还将继续。

但是当地村民说，他们原来一直用这些树的树叶来喂养牲畜，而如今的这个森林公园他们根本就进不去。而且项目企业种植的根本就不是原有的树种，而是类似锥果木一类的外来物种。这个品种是一种生长非常迅速的海岸植

物，会吸收大量的地下水，这对于沙漠生态来说简直就是灾难。

由于持续干旱，目前项目规划区有些地方的地下水位已经下降到地下100米左右，而有些地区的地下水位则以每年两米的速度迅速下降。当地居民担心，项目公司可能会因为煤炭开采而攫取大量的地下水资源。过去3年里，沙漠干旱已经导致当地至少3000名儿童死亡，而当局承认的数字仅有828名。

而附近格拉诺村的村民则已经通过司法渠道对采矿公司提起申诉。其中一名叫做里拉·拉姆的请愿者说，采矿公司将会把污水倾倒在超过2700英亩的耕地和森林之中。他说：“15个大型村庄和1.5万居民将直接受到影响，20万棵树将会因污染而死去，而所有的居民都必须因此而搬离本来居住的村庄。”

昂国煤炭开采公司的沙伊克对上述指控予以了否认。他说：“项目只会占用1400英亩土地，用于修建两个用于储存开采污水的蓄水池。这些水只是天然的地下盐水而已，是无毒无害的，不会影响任何一个村庄。”

“一开始我们很高兴，因为别人都说我们要发财了。但现在一切都像噩梦一样，这些黑色的金子就像黑色的毒蛇一样，要把我们从世代栖息的土地上驱逐出去”

逆世界潮流而动：巴基斯坦迎来煤炭使用热潮

塔尔煤田的煤属于褐煤，是一种煤化程度低的高灰煤。也就是说，和普通煤相比，要产生同样的电能就要燃烧更多的褐煤，而相应的碳污染排放也就更多。目前全球很多国家都已经不再使用高灰褐煤发电了。中国国内关停了很多燃煤电厂，但同时却又在帮助巴基斯坦等发展中国家发掘褐煤并建设新的燃煤电厂。

在去年的联合国巴黎气候峰会上，巴基斯坦承诺削减5%的温室气体排放。然而与此同时，该国却又在计划发展刚刚起步的煤炭行业，预计在2018年前共有5座全新的发电厂投入使用，更多项目还在积极筹划之中。

最近，一名7岁的女孩在她的环境律师父亲支持下向巴基斯坦最高法院提起了诉讼。她指控巴基斯坦政府的塔尔沙漠开发计划将加剧环境变化，而且也掠夺了巴基斯坦未来多少代人享受健康生活的权利。在这个案例中，这位小女孩指出，应该利用投资可再生能源来应对能源供给不足的问题，而不是把目光放在高灰煤炭上，忽略巴基斯坦得天独厚的太阳能和风能资源。

信德省昂国煤炭开采公司的沙伊克承认，褐煤的确是品质最差的一种煤炭资源，但是他也指出，该公司会利用最先进的技术捕捉回收煤场烟囱中的煤灰。未来，该公司还会修建一处专门用于倾倒煤灰的场所，从而最大程度地减少煤灰飞尘的破坏作用。然而对于塔尔沙漠地区的村民以及未来一代的巴基斯坦孩子们来说，这样的说法好像并没有什么说服力。

Pakistan's coal expansion brings misery to villagers in Thar desert

Coal excavation will displace thousands of people already living in poverty and deplete groundwater in a region ravaged by drought

Amar Guriro

Thario Halepoto village is located in the Thar desert in south-eastern Pakistan, around 400 kilometres east of the port city of Karachi. You can hear the scream of peafowl and bells sounding around the necks of grazing goats and cow. Women wearing colourful clothes carrying water pitchers on their head between the sand dunes.

Around 1,000 households live in the village, the majority of them part of the Halepoto clan. But life here is about to change, with the arrival of a Chinese and Pakistani joint venture to excavate the massive coal deposits that lie beneath the sand and build coal fired power stations to meet Pakistan's energy demands.

Mehmood Halepoto's family has lived in this village for centuries. Like other residents, Halepoto is a herder who ploughs the fields when it rains. In 1990 officials came looking for coal, and found huge deposits under the village.

The Thar desert in Sindh province contains 175 billion tonnes of lignite coal – one of the largest untapped coal deposits in the world. It is also one of the most populated deserts in the world – home to world heritages sites and endangered species. Most of the 91,000 people who live in the Thar desert region live in poverty and are highly vulnerable to extreme weather events. Twenty five per cent of people live within the proposed coal development area. They thought they would benefit, but that has not been the case.

“We were happy, as people told us we would be rich, but now, this has turned into a nightmare

and the black gold has become a black snake that is displacing us from our ancestral land,” said Mehmood.

It was only in 2015 that work began on the fields, when the Thar coal project was included as part of a string of energy and infrastructure deals signed under the US\$46 billion China-Pakistan Economic Corridor (CPEC). These agreements included eight coal-fired power plants and a 3,000-kilometre network of roads, railways and pipelines to transport oil and gas from Gwadar Port on the Arabian sea to Kashgar, in the northwestern Chinese province of Xinjiang.

In December 2015, China approved a US\$1.2 billion (8 billion yuan) investment for surface mining of Thar coal and the establishment of 660 MW power projects. The deposits are divided into 12 blocks, each containing 2 billion tonnes of coal. In the first phase the Sindh provincial government has allocated block II to Sindh Engro Coal Mining Company (SECMC) to excavate 1.57 billion tonnes of coal and build a 660 megawatt power plant. The plant is expected to send power to the Pakistani national grid by June 2019 and will later be expanded to produce 1,320 MW of power.

A state-owned Chinese company, the China Machinery & Engineering Corporation (CMEC), is providing the machinery and technical support for the excavation of coal, and building and running the power plant. The local company will provide human resources, management and be responsible for the distribution of power. SECMC say the project has created 200 technical jobs and 1,600 menial positions. But locals have been protesting that the company

has not even given them the menial jobs. Around 300 Chinese, including the engineers, miners and experts are also working on the site.

LOCAL FEARS

The Chinese team have started excavating the first pit. In the first phase SECMC will relocate five villages, which are located in block II, including Thario Halepoto village.

SECMC has started paying villagers for their homes and agricultural land. SECMC's chief executive officer, Shamsuddin Ahmed Shaikh, claims that his company will do all they can to help the villagers.

"We will construct model towns with all basic facilities including schools, healthcare, drinking water and filter plants and also allocate land for livestock grazing," he said.

He said that the company is paying villagers above market prices for their land - 185,000 Pakistani rupees (US\$1,900) per acre. However locals say this price does not take into account its high environmental value and they do not want to be relocated to the new towns, the exact location of which is yet to be decided.

"We [our families] lived in this village for centuries, we spent our childhood here and our forefathers are buried here; to leave all this is very difficult," said Muhammad Hassan Halepoto, a resident of the Thario Halepoto.

"We have dozens of trees on each acre of land. We feed our livestock from these trees even during droughts and also when it rains we plough our lands and get a huge amount from the crops. These lands are our permanent source of livelihood," said one villager.

The villagers will also lose grazing lands to the coal project. The Thar Desert is home to 7 million cows, goats, sheep and camel and provides more than 60% of the milk, meat and leather requirement of Sindh province.

Villagers fear that the project will be an environmental disaster for the desert. The company will cut thousands of indigenous trees to make way

for the mining and construction of roads, destroying the local ecology.

A SECMC official said that the company will plant 10 trees for every tree cut. So far the company has planted 12,000 trees in an 18-acre area called the Green Park and more trees will be planted in next two years.

But villagers said that they had been using the leaves of these trees as fodder for their animals and they will have no access to the trees in the park. Also instead of planting indigenous trees, they pointed out, the company is planting alien species like conocarpus, a fast growing type of coastal plant which sucks up a lot of water and will be disastrous for the desert environment.

Locals are afraid that the company will extract huge amounts of groundwater for coal excavation, a region where groundwater level is dropping in some areas by two metres a year and has fallen to 100 metres deep in some place due to prolonged drought. Drought in the desert has led to the death of more than 3,000 children in the past three years, although authorities have admitted only 828 deaths.

"Most of the 91,000 people who live in the Thar desert region live in poverty and are highly vulnerable to extreme weather events"

Residents of another nearby village, Gorano, have filed a constitutional petition in the court against the mining company. Leela Ram, one of petitioners, said that the mining company will dump wastewater over 2,700 acres of cultivable land and forest. "This will directly affect 15 major villages with 15,000 people, 200,000 trees will die and all these people will have to migrate from their native villages," said Leela Ram.

SECMC's Shaikh rejected such claims saying his company would only use 1,400 acres for two reservoirs to store the water extracted during excavation. "It will be natural underground saline

water, not toxic or poisonous in any way and it will not affect any village,” he claimed.

PAKISTAN’S EMBRACE OF COAL BUCKS GLOBAL TREND

Thar coal deposits are lignite, a particularly dirty kind of coal with low energy content. This means a higher quantity of coal needs to be burnt to produce power, which means more carbon emissions. Many countries around the world are reducing power generation from dirty lignite. China itself is closing down many coal based power plants at home, but on other hand it is helping developing countries like Pakistan to mine lignite coal and build new power stations.

At the UN climate summit in Paris, Pakistan pledged to reduce its greenhouse gas emissions by 5%, but at the same time it plans to develop its fledgling coal industry with five new power plants scheduled to start producing electricity by 2018 and many more in the pipeline.

A seven-year-old girl recently filed a case in Pakistan’s Supreme Court, with the support of her environmental lawyer father, claiming government plans in the Thar desert will exacerbate climate change and deprive future generations of the right to healthy life. In her case she points to the needs to invest in renewables to overcome the power shortage, rather than dirty coal, since the country is endowed with plenty of sun and wind.

SECMC’s Shaikh admitted that lignite is worst form the coal, but he claimed that his company will be using state of art modern technology to collect the fly ash from the coal chimney and dump it in a site that the company will build in the future, thus minimizing the damage from fly ash. His words may be little comfort to the villagers of the Thar desert and the next generation of children growing up in Pakistan today.

亚投行在谨慎前行中彰显雄心

亚投行宣布的首批4个项目中，3个与其他多边银行合作开展。随着越来越多国家的加入，亚投行投资触角将突破“一带一路”沿线国家

刘琴

借力其他多边银行降低风险

引起人们各种期盼和猜测的亚投行首批投资项目，终于在该机构于6月25-26日召开的首届年会上亮相。

这4个投资项目总计5.09亿美元，涉及能源、交通和城市发展等领域。4个项目全部集中在亚洲，包括投资1.65亿美元的孟加拉国电力输配系统升级扩建项目；2.16亿美元的印度尼西亚国家贫民窟改造升级项目；1亿美元的巴基斯坦国家高速公路项目；2750万美元的杜尚别—乌兹别克斯坦边界道路塔吉克斯坦境内路段改善项目。

除孟加拉国项目为亚投行独立贷款外，其余3个项目与世界银行（WB）、亚洲开发银行（ADB）、欧洲复兴开发银行（EBRD）联合融资。

创绿研究院研究员白韞雯告诉中外对话，这种合作方式体现了亚投行善于学习借鉴和谨慎的态度。通过与其他多边开发银行合作，亚投行可以快速积累经验。

“可以肯定的一点是，在一开始的这几个项目中，亚投行肯定不愿意犯错误，以影响其后面的声誉。”世界资源研究所可持续金融高级研究员朱寿庆告诉中外对话。

除巴基斯坦项目被归为A类之外，其他项目被归类为B类。A类项目可能给环境和社会造成累积性且不可逆的严重影响。B类项目环境和社会影响相对小。

据创绿中心介绍，从这4个项目来看，亚投行对于自身环境与社会政策实践持谨慎态度，更多是采用合作伙伴已经付诸实践的保障政策。其中唯有孟加拉国项目是独立投资，且是

亚投行支持的第一个项目。白韞雯认为：“如果该项目没有很好处理对环境和社会造成的影响，亚投行《环境与社会保障框架》可能会被进一步修订。”

亚投行扩容，投资不限于“一带一路”

在亚投行年会上，金立群透露，目前已有24个国家申请成为亚投行新成员。接纳新成员的截止日期为2016年9月30日，他表示希望新成员可以在2017年初正式加入。届时，亚投行成员的代表性将更加广泛。许多拉美国家将有望成为亚投行新成员（目前拉美地区仅有巴西是亚投行成员）。

金立群在6月28日举行的夏季达沃斯论坛上表示，亚投行成员国到明年初将会达到90个左右。

这个规模将超过拥有67个成员的由美日主导的亚洲开发银行。目前亚投行包括57个成员国，涵盖亚洲大部分国家，董事会前三大股东分别是中国、印度和俄罗斯。

金立群强调，亚投行同样支持那些并不被“一带一路”所覆盖的国家。他认为，地区性合作或全球性合作将使所有人受益。他说，作为一个国际性机构，不可能所有的资金都投到亚洲，那样非洲和拉丁美洲会有意见。所以在项目投资时，会考虑到不同区域之间的平衡。

发改委对外经济研究所国际合作室主任张建平对媒体说，随着亚投行成员的迅速扩充，投资项目超越“一带一路”范畴，进入到其他地区是非常自然的。

同时，亚投行在寻求与世界银行、亚洲开发银行的合作。“将来如果世界银行在一个国家

亚投行首批项目信息（创绿研究院提供）

名称	国家	行业	贷款方	环境与社会政策
高速公路项目	巴基斯坦	交通基础设施建设	ADB DFID AIIB	亚投行承诺采用亚开行的《保障政策声明》（2009）
公路建设	塔吉克斯坦	交通基础设施建设	EBRD AIIB	亚投行承诺采用EBRD的《环境与社会政策》（2008）
配电系统升级以及扩张	孟加拉国	能源、电力	AIIB	采用亚投行自己对于环境与社会制定的政策和标准
贫民窟升级改造	印度尼西亚	社会服务、城市交通、垃圾处理	WB AIIB	世行的采购政策和环境与社会保障政策以及相关程序都将被运用到该项目中

搞项目，亚投行感兴趣的话也可以联合融资进行支持，所以不会局限在‘一带一路’国家”，张建平认为。

清华大学教授李稻葵在达沃斯论坛上说，短期来看，提出一带一路倡议有非常直接的经济上的背景和考量，但长期来看，一带一路的最高境界是形成经济共同体。

李稻葵说：“可能二十年、三十年以后，如果‘一带一路’这个倡议是成功的，未来‘一带一路’相关地区能够与中国形成一个比较松散、比较有效的，比欧盟还要更加高效的一个经济共同体。在一起协调政策、关税、货币政策、金融政策，经济上可以走到一起，这可能是‘一带一路’倡议的最高境界。”

亚投行开放包容性有待加强

亚投行首届年会的一大新气象就是非政府组织（NGO）的参会。

绿色和平可持续金融项目经理郭绍明告诉中外对话，当他被邀请代表NGO在年会上发言时，感到很惊讶。“不知道为什么选我们，可能是因为之前做了很多研究，并一直积极主动地在和亚投行联系吧。”

基于中国的现实状况，重要机构年会邀请NGO参加的并不多，多家NGO的中国职员认为亚投行首次年会很成功。

世界资源研究所可持续金融高级研究员朱寿庆告诉中外对话：“很多领域的专家参加了年会，亚投行不仅邀请理事，而且向NGO敞开大门，体现出亚投行的开放性。”

中国知名环保人、绿色流域负责人于晓刚说，只要NGO申请，基本都能参加亚投行年会，这点非常好。但两天的会议，只有第二天上午NGO才有机会参加，提问时间也有限。而亚行、世界银行年会召开的第一天，行长就会

“从这4个项目来看，亚投行对于自身环境与社会政策实践持谨慎态度，更多是采用合作伙伴已经付诸实践的保障政策”



图片来源：Asian Development Bank

亲自到场与NGO交流，把会议的黄金时间留给NGO，后面还有分会场深入探讨相关问题。

“从参会的半天时间来看，提问环节中其他行业的提问很少，NGO很踊跃，这说明NGO对亚投行非常关注。在以后的年会中，也希望亚投行能够增设亚行、世行类似的环节。”于晓刚说。

Both ENDS Connecting people for change 的项目助理彼得·詹森告诉中外对话，NGO的积极参与会给亚投行带来积极的正向推动作用。“行长金立群也表示，在政策咨询过程中会听取NGO意见，这为以后NGO与亚投行的深入交流打开了大门。”

金立群6月28日在夏季达沃斯上说，亚投行融资的项目必须符合3个要求，即必须在金融上具有可持续性、环保、在社会上被广泛接受。

但多家国际NGO认为，亚投行的开放性还不够。环保NGO一直关注的《环境与社会保障框架》存在缺憾，但这次年会并没有机会解答NGO所关注的如何防范可能给环境和社区带来的风险问题。当NGO问如何选择项目，避免环境和社会风险时，行长金立群只是说会谨慎选择，并没有解释选择的标准。

创绿研究院研究员白韞雯告诉中外对话，金立群在年会上举例说，如果一个好的项目有

100个人赞成，只有两三个人反对，即使对这两三个人会造成影响，这样的项目也是要上的，不会因为两三个人的反对而放弃。白韞雯认为这样的解释还不充分，她说：“我们更想了解项目决策的依据和程序是怎样的。”

为了更好地评价亚投行《环境与社会保障框架》的效力，绿色和平严格按照该框架的规定，对由国家开发银行、国际复兴开发银行、世界银行和国际金融公司出资支持的四个对环境和社会产生了负面影响的项目进行重新评估。这四个项目分别是位于印度尼西亚的煤矿项目、印度的水力发电项目、南非的火力发电项目和印度的燃煤发电厂项目。

评估重点从三个方面进行：亚投行能否避免这些项目的投资；如果亚投行进行投资的话，能否更好地解决项目所带来的环境破坏，以及能否降低这四个项目所引发的环境与社会问题。

评估得出的结论表明亚投行并不能避免投资这四个项目以及其它可能的环境不友好项目。同时，亚投行如何确保《环境与社会保障政策》在项目中有效实施也很重要。

郭绍明认为，亚投行可以借鉴其他多边发展机构过往的经验和教训，后来者居上而成为新标准的制定者。

China-led development bank careful to co-operate with critics

AIIB is determined to avoid mistakes and “reputational damage” in its first projects

Liu Qin

The Asian Infrastructure Development Bank (AIIB) unveiled its initial batch of projects at its first annual meeting in Beijing in June, giving the go-ahead to investments totaling US\$509 million (3.4 billion yuan) and providing an important yardstick to assess the bank's first six months.

The AIIB has swiftly been taking shape since China's President Xi Jinping and Premier Li Keqiang announced its formation less than three years ago. Its mission, they said, was “to promote interconnectivity and economic integration in the region”.

By the end of 2014, 22 Asian countries signed up to the project. And in June this year 50 countries endorsed membership terms at a ceremony in the Great Hall of the People in Beijing. China is the biggest shareholder in the bank with a stake of almost 21%.

FEARS FOR INFLUENCE

AIIB was greeted with alarm by the US and Japan, who have not joined. China's decision to start a new multi-lateral development bank raised fears it might seek to displace the World Bank, or (conversely) narrowly serve China's interests in Asia, especially its “One Belt, One Road” (OBOR) infrastructure web, woven around its own trade needs.

Environmental activists are also worried about the environmental and social impacts of AIIB projects, and whether hard-won international best practices as eventually applied by the World Bank, would be used for AIIB projects.

So what can be gleaned from its first months of operation, and what does the first round of approved projects tell us?

LEARNING FROM OTHERS

The bank's initial projects are all in Asia (see figure) and has agreed to disperse US\$165 million (1.1 billion yuan) for power grid upgrades in Bangladesh and to support two highway projects in Central Asia; US\$100 million for Pakistani motorways; and US\$27.5 million to upgrade the road linking Tajikistan's capital, Dushanbe, with neighbouring Uzbekistan. The largest loan was US\$216 million for the renovation of slum housing in Indonesia.

“China-based environmental activists have given the AIIB's approach a guarded welcome, although international NGOs are more critical”

The AIIB is the sole investor in the Bangladesh project. But the three other loans all reflect AIIB's pledge to “cooperate with existing multilateral development banks”, and are jointly-funded, either with the Asian Development Bank, the European Bank for Reconstruction and Development, or the World Bank.

Details of AIIB's first projects (provided by Greenovation:Hub)

Project	Country	Sector	Lenders	Environmental and social policy
Highway project	Pakistan	Transportation, infrastructure, construction	ADB, DFID, AIIB	The AIIB has undertaken to use the Asian Development Bank's Safeguarding Policy Statement (2009)
Highway construction	Tajikistan	Transportation, infrastructure, construction	EBRD, AIIB	The AIIB has undertaken to use the EBRD's Environmental and Social Policy (2008)
Power grid upgrading and expansion	Bangladesh	Energy, electricity	AIIB	The AIIB's own environmental and policy standards will be applied
Improvement and renovation of slums	Indonesia	Social services, urban transport, waste disposal	WB, AIIB	The World Bank's procurement policy and environmental and social safeguarding policies, as well as relevant procedures, will be applied

China-based environmental activists have given the AIIB's approach a guarded welcome, although international NGOs are more critical.

Bai Yunwen, a researcher with Beijing-based NGO Greenovation:Hub, said the partnership approach shows the AIIB is being careful in terms of the minimising the environmental impact of its investments, and will gain experience quicker by working with and learning from other multilateral banks.

VIGILANCE

“One thing is certain: the AIIB is determined to avoid reputational damage by making mistakes in its first projects,” Shouqing Zhu, sustainable finance senior associate at the World Resources Institute China, told *chinadialogue*.

In its own words, the AIIB has promised to be “lean, clean and green.”

AIIB's joint projects apply the standards on environmental impacts and social issues, such as labour practices, that have been formulated by partner banks rather than the AIIB's own fledgling policies.

However, the environmental credentials of the Bangladesh power project will be monitored closely.

“If the environmental and social impacts of this [Bangladesh] project are not properly handled, we may see further revisions to the AIIB's environmental and social framework,” said Bai.

GLOBAL AMBITION

AIIB president Jin Liqun told the annual meeting that he hopes the bank will accept another 24 countries in 2017, including from Latin America.

According to the Financial Times, Chile, Colombia and Venezuela will all aim to apply before the 30 September cut-off date

Jin predicted that AIIB would soon have more members than the US and Japan-dominated Asian Development Bank. He told the World Economic Forum's Annual Meeting of the New Champions, held in the north China city of Tianjin from June 26 to 28, that AIIB could have as many as 90 members by early 2017, outstripping the ADB's 67 members.

The bank's president said that as an international institution the AIIB could not confine its investments to Asia, in view of pressure from African and Latin American countries that could join the bank in the future. A proper balance will be maintained when selecting projects, he said.

The AIIB's president also confirmed that the bank will support countries outside the OBOR region.

Tsinghua University economics professor Li Daokui told the WEF meeting that in the near-term there were very real economic reasons for focusing on the OBOR region, and in the longer term the ultimate aim would be for this region to become an economic bloc.

OPTIMISTIC

A striking feature of the AIIB's first annual meeting was the welcome given to NGO participation, particularly in view of NGOs criticism and demands for transparency. It is rare for major Chinese institutions to invite NGOs to their annual meetings.

Yu Xiaogang, director of Green Watershed, said it was a positive development that almost any NGO that requested to attend had been able to.

However NGOs were allowed to speak only briefly, were given a limited time to ask questions, which compared unfavourably with World Bank and Asian Development Bank annual meetings

Jin told the 'Summer Davos' forum in Dalian, northern China, that projects must meet three criteria: financial sustainability, environmental protection and broad public acceptance.

But some international NGOs say the bank is not yet open enough on its lending criteria.

They point to lax standards when it comes to disclosure and transparency with the bank's



Image by Agência de Notícias do Acre

Environmental and Social Safeguarding Framework. However the issue of how to avoid environmental and social risks was not addressed at the meeting.

In order to better evaluate how effective the AIIB's framework is, Greenpeace applied these criteria to four projects, funded by the China Development Bank, the International Bank for Reconstruction and Development, the World Bank, and the International Financial Corporation, all of which caused environmental damage. These were an Indonesian coal mine, a South African thermal power plant, and both hydropower and coal fired power plants in India.

The evaluation focused on three criteria; whether AIIB would reject the investment based on its environmental impact assessment (in a theoretical scenario where the AIIB was the main investor), whether it would be able to prevent environmental damage if investment went ahead, and whether the environmental and social impacts of these projects would be reduced.

Greenpeace found the bank would have invested in these and other potentially environmentally damaging projects.

China's role as a destination for green finance will only grow but critics say they want to see more transparency on how that money is being used.

亚投行为何需要常驻董事？

一个常驻董事会将有助于解决公民社会中的各种关切，亚洲开发银行前美国执行董事罗伯特·奥尔在本文中指出。

罗伯特·奥尔

当亚洲基础设施投资银行（AIIB）在2016年1月开门营业的时候，我们这些亚洲开发银行的董事会成员饶有兴趣地关注着它的一举一动。

在我看来，亚投行的成立并非地缘政治驱动的结果，而是因为中国不满意在传统多边开发银行中的发言权与其经济力量不符，从而想要扩展影响。

不可否认，亚洲地区的基础设施需要得到更多的关注和支持，但是否需要一个新的银行则是有异议的。尤其亚投行的初始项目有些是与世行和亚行共同融资的，而且亚投行似乎也接受后两家银行所遵循的公认的有效程序和进程。

亚投行接受这些程序和良治标准是一个非常积极的迹象。但是，它也表现出一个与现有各大多边开发银行的明显区别：没有常驻董事会，即各股东对银行的行动进行日常监督的机构。

这是迄今亚投行治理架构中的一大缺陷，由于它想要发展成一家巨型银行，这在某种程度上也是一大问题。鉴于亚投行已经有57个成员国，而且成员国数量还将继续增加，这个问题不容轻视。

亚行常驻董事会的作用

这里我解释一下常驻董事会为什么对有24个成员国的亚行很重要。常驻董事会代表了67个国家股东，永久设于菲律宾马尼拉。其主要作用是监督，从而保障股东的利益，而这一利益很大程度上就是银行的完整性。

作为一个常驻机构，董事会与管理层保持日常联系，并可对从政策到项目的任何变化产

生影响。董事会致力于为包括公民社会在内的所有利益相关方提高银行的透明度，并且获得了不同程度的成功。亚行行长中尾武彦曾在多个场合对常驻董事会给予了高度赞扬，因为董事会帮助他更真切地了解到股东的实际看法和关切。

亚投行行长金立群曾任亚行副行长，他公开宣称反对设立常驻董事会，因为他觉得这是一个“花钱窟窿”。但是，亚行常驻董事会的情况并非如此。2015年，亚行的运营预算为6.60497亿美元，其中董事会的预算仅占2.7%。我曾经在摩托罗拉和波音公司担任过15年的高管，假设你认为董事会的存在能够带来价值，那么这个比例对于任何一家我熟悉的大企业来说都绝不是“花钱窟窿”。因此，我认为成本是一个说服力很弱的借口。如果这样的话，那么亚投行不设常驻董事会必然另有原因。

“亚行行长中尾武彦曾在多个场合对常驻董事会给予了高度赞扬，因为董事会帮助他更真切地了解到股东的实际看法和关切”

相关后果

企业董事会极少是常驻的，但亚投行并非企业，而是一个代表民族国家的多边机构。因此，这家新银行的股东代表的是纳税人，他们

的利益必须得到保障。没有常设董事会的日常监督，就没有保障这些利益的能力，由此会产生很多不难想到的后果。

首先，这强化了某些人的看法，认为亚投行将更多地控制在中国政府手中，而非像其他多边开发银行那样被最大的股东掌握。

其次，没有常驻董事会就无法保证透明度和可问责性。常驻董事会可为公民社会参与管理和谏言提供便利，增强他们的参与感。大多数开发项目都需要得到当地非政府组织的支持和帮助，需要他们从一开始就参与其中，这要求总部能够听到他们的声音。

再次，亚投行通过的《公共信息临时政策》引发了公民社会团体的巨大关切，其中也包括那些致力于环境问题的组织。这是因为他们感觉无法充分参与到政策中去，而设立常驻董事会有助于缓解这一状况。

最后，这会导致公民社会团体表达对于沟通不充分更大的关切，而常驻董事会可以为他们接触管理工作开辟更多途径，正如很多亚行董事会成员为公民社会所做的那样。

中国财政部下属智库国际财经中心（原亚太财经与发展中心）主任周强武在接受《环球时报》采访时说，亚投行将会建立一个专门机构，将亚投行的行动“告知”非常驻董事会。

但是，一个法定的董事会怎么能仅仅被“告知”呢？“告知”并不意味着对话或来回讨论，更不用说让董事会成员有能力与代表各自政府的同事密切联系和协商了。如果中国是某个多边开发银行的大股东，但对银行的决议仅仅是被“告知”，中国会满意吗？

鉴于不设常驻董事会的原因是费用问题，有一个建议说如果哪个成员国想要在北京派驻一位董事会成员来进行监督，该国可以自行担负开支。但这是一个非常不公平的解决办法，因为只有较为富裕的成员国才能负担得起，这无疑会在银行将要服务的股东之间引发争议。此外，多边银行中股本比例较低的股东会结成帮派。

亚投行最近还从多个国家招募了一些优秀的专业人士组建了一个国际顾问团，其中也包括来自非亚投行成员国美国和日本的专业人士。这是一个值得称道的举措，但无法代替常驻董事会，因为其影响力并不清晰。而且，在没有常驻董事会的前提下，也很难想象美国或日本会加入亚投行。

如果亚投行能设立一个常驻董事会，我想这将消除美日的一大疑虑，并且可对某些方面认为亚投行在一定程度上反映了地缘政治目标的想法做出有力的回击，从而为亚投行未来吸引更多国家加入做好铺垫。

迄今，亚投行在治理和防护措施计划方面采取了很多正确的步骤。当然，实践是最好的检验，我们密切关注其与其他多边开发银行的初始合作项目的落实。常驻董事会的建立将成为一个检验亚投行的管理是否会重视透明度、并与所有股东共同治理的最高指标。

Why the Asian Infrastructure Investment Bank needs resident directors

The new bank could allay civil society concerns by bringing in a permanent board

Robert Orr

When the new Asian Infrastructure Investment Bank (AIIB) opened its doors in January 2016, those of us on the Asian Development Bank Board of Directors and Management watched with interest.

Rather than seeing the AIIB's establishment as driven by geopolitics, my view was that China had been dissatisfied with a lack of, what it felt was, a level of influence commensurate with its economic strength within the traditional Multilateral Development Banks (MDBs), and wished to expand its clout.

The need for greater attention to infrastructure in the region cannot be denied, though the need for a new bank was debatable; especially since the AIIB thus far has co-financed its projects with the World Bank and Asian Development Bank, which have followed recognised and effective existing procedures and process in ways that the AIIB seems to find acceptable.

AIIB's acceptance of these procedures and of good governance standards is a hopeful sign. However, this also highlights the one significant difference with the existing major MDBs: the lack of a resident board of directors – a forum for the shareholders to have day-to-day oversight of the actions of the bank.

This is so far a major flaw in the AIIB governance structure, and it is an issue, in part, because the AIIB aspires to become a mega-bank. With 57 member countries already, and on a path to add more, it is clearly not an issue to be taken lightly.

THE ADB BOARD'S ROLE

Here is why a resident board is critical to the 24 member states of the ADB. The board represents 67 country shareholders and is permanently based in Manila, the capital of the Philippines. Its principal role is oversight, so that the shareholders' interests are ensured. A large part of that interest is the integrity of the bank.

As a resident body, the board has day-to-day contact with management and can effect changes on everything from policy to projects. The board tries to improve the transparency of the bank for all stakeholders, including civil society, with varying degrees of success. On several occasions ADB president Takehiko Nakao has said he values the resident board, because it helps him keep in closer touch with what the shareholders' actual views and concerns are.

AIIB president Jin Liqun, a former ADB vice president, has publicly stated that he opposes the establishment of a resident board because he sees it as a cost centre. However, that is certainly not the case with the ADB board. In 2015 the ADB operating budget was US\$660.5 million (4.4 billion yuan); the ADB board represented only 2.7% of these overall costs.

I spent almost 15 years as a senior executive at Motorola and then Boeing; and that percentage figure does not look like any automatic corporate cost centre that I am familiar with, assuming you feel it adds value. So it strikes me that cost is a weak

argument; and, if so, there must be another rationale for not having a resident board.

CONSEQUENCES

Corporate boards are rarely in residence. But the AIIB is not a corporation, rather an institution that represents nation-states. The shareholders in the new bank therefore represent taxpayers, whose interests must be guaranteed. Without a permanent board that has day-to-day oversight, the bank's ability to ensure these interests are greatly diminished. There are a number of immediate consequences that come to mind.

First, it reinforces a perception by some that the AIIB will be much more centrally controlled by the Chinese government than is the case with the largest shareholder in other MDBs.

Second, the absence of a resident board inhibits transparency and accountability. A resident board would provide civil society with easier access and a voice within management, giving them a better sense of inclusiveness. Most development projects require the support and assistance on the ground from non-governmental organisations and they need to be plugged in from the start. This requires that they are heard at headquarters.

Third, the AIIB's adoption of its Public Information Interim Policy (PIIP) generated significant concern among civil society groups, including those engaging on environmental issues. This was because of their sense of not having adequate input into this policy. A resident board could help alleviate that.

Finally, this has led civil society groups to express more general concern about less than adequate communication, which could be mitigated with a resident board that would open more access to management, as many ADB board members do for civil society.

Zhou Qiangwu, chief executive of Asia Pacific Finance, a think-tank in the Chinese Finance Ministry, told the Chinese state-owned newspaper Global Times that the AIIB will have a special unit to keep the non-resident board "informed" of the AIIB's activity.

But how can a legitimate board just be informed? Being informed does not suggest dialogue or much of an opportunity for back and forth, not to mention the ability of board members to bond and to consult easily with fellow members who represent their governments. Would China be satisfied if it were simply informed about decisions made by an MDB in which it was a major shareholder?

Because of the perceived costs of a resident board, there has been a suggestion that if a shareholder country wants a board member resident in Beijing that country's government can pay for it themselves. But this would be a grossly unequal solution, as only the richer shareholders could afford to do so, which would no doubt cause rumblings among the other shareholders the bank is mandated to serve. Shareholders with lower capital share in a multilateral bank could form into multinational constituencies to make this more affordable.

The AIIB has recently established an international advisory panel with distinguished appointees for many countries, including the United States and Japan, both non-AIIB members. It's a laudable undertaking, although no substitute for a resident board, as it is unclear how much influence they will have. And it is hard to envision either the United States or Japan seeking membership in the AIIB without the presence of a resident board.

If a resident board were established I believe it would remove one of the major concerns of Washington and Tokyo, and may counter the belief in some quarters that the AIIB reflects geopolitical objectives, thus easing future membership into the institution.

The AIIB has taken many of the right steps in articulating what they plan to do relative to governance and safeguards. Of course, the proof is in the pudding, as we watch how these initial cooperative projects with other MDBs are implemented. The establishment of a resident board would be the crowning indicator that the management of the AIIB will welcome transparency and shared governance with all stakeholders.

贝卢蒙蒂输电线项目将清除广袤植被

2000公里的输电线工程面临敏感的生物群落和复杂的环境法律两大挑战

米尔顿·莱亚尔

巴西北部的贝卢蒙蒂水电项目两条大型输电线路中的第一条即将开建，将电力输往2100公里外的一座变电站。这个巨大的工程需要在巴西的亚马逊地区和塞拉多大草原上清除面积相当于1700个足球场的大片原生植被。

这项工程将由中国的国家电网公司承建。自从2010年进入巴西以来，国家电网已经成为该国发电和输电市场的一个主要角色。即将开工的第一条输电线路从亚马逊流域的帕拉州通向米纳斯吉拉斯州的伊比腊西，那里位于电力匮乏的东南部。

全部投入运行后，贝卢蒙蒂将成为世界第三大水电站，装机容量达到1120万千瓦。由于延宕和关于其对欣古河生态及原住民社区影响的争论，这个项目饱受困扰和挫折，终于在今年早些时候开始商业发电，预计将于2019年全部投入运行。

根据第一条输电线影响研究的结果，在建设期间巴西的两大生物群落将失去1725公顷的原生植被。损失较大的是塞拉多草原，共1016公顷，亚马逊将失去709公顷的原生植被。这条线路还要经过10个不同保护区，其中三个是联邦保护区。

第二条线路长度为2500公里，将电力输送到里约热内卢。这条线路的环境研究并未提及树立输电铁塔将要清除多大面积的原生植被。

但是，据贝卢蒙蒂输变电公司（BMTE，一家专门为该水电站项目成立的国家电网控股企业）说，



输电线路图。图示来源：Diálogo Chino

该工程具有自己的环境优势，将采用特高压技术输送80万伏交流和直流电。

BMTE公司的环境总监纽顿·泽比尼说，这意味着可以在输电损耗最小化的前提下把电输送得更远，也意味着不再需要补充性的发电工程并避免了次生影响。

“这个巨大的工程需要在巴西的亚马逊地区和塞拉多大草原上清除面积相当于1700个足球场的大片原生植被”

由于所需的输电铁塔较少，这项中国技术所产生的影响也更小。但这些优势能否被纳入工程设计，主要还要看当地的巴西咨询公司的工作成果。

许可程序

巴西的环境法律非常复杂，包含了超过2万条的标准。在这样一个法律框架里生存，对外国投资者来说是一项艰巨任务，因而外商常常将其视为一大麻烦和经济发展的阻碍。自从9月1日米歇尔·特梅尔正式取代前总统迪尔玛·罗塞夫之后，巴西环境法律的苛刻性就成为人们关注的一大焦点。

特梅尔新内阁中的多名成员来自势力强大的农业综合企业利益集团，他们一直要求废弃环境许可制度。环境活动者则说，如果法律修正案提案（即PEC 65/2012法案）获得通过，将意味着基础设施项目无论其社会和环境的影响如何，都会一路绿灯。

巴西能源项目的环境许可程序经常会花上好几年，但贝卢蒙蒂两条输电线路的许可过程还是相对迅速的。

“它们在六个月内就获得了初步许可，”巴西环境和可再生资源协会（IBAMA）能源批准部门的克劳迪娅·巴罗斯说。她在接受中拉对话采访时表示，如此迅速的原因之一是该项目不需要补充性发电工程。

第二条线路获得许可过程（包括国家电网巴西分公司总经理蔡鸿贤个人去年访问IBAMA商讨申请事宜）的延宕已经成为该项目的其中一个主要风险。国家电网聘请了Concremat Ambiental公司进行环境影响研究。

泽比尼与中国主管们参加了多次环境问题联席会议，他说中方发现巴西的法规很难理解。他告诉中拉对话：“中国的情况截然不同。”

电力行业环境论坛（FMASE）负责人埃尼奥·冯塞卡说，在巴西经营的中国企业喜欢把环境问题交给当地伙伴。他说：“如果他们自己的职员没有足够的能力应对，就会找资源聘请专门的公司来解决问题。”

国家电网是巴西电力行业的重要参与者，控制着超过1万公里的输电线路，最近还收购了该国最大发电、输电和售电企业之一 CPFL Energia公司23%的股份。

社会问题

乌鲁阿苏是戈亚斯乡下一个有着4万人口的小城，BMTE公司已经在距离市中心仅有几公里的地方建起了输电线工人的宿舍。该工程给当地人创造了许多工作机会，但随着工人宿舍旁边三家妓院的出现，也引发了社会问题。乌鲁阿苏的环境秘书迪亚哥·梅雷莱斯说，这很正常。

“无论在哪儿，只要有成群的男人，这种生意就会开张。工人们和十个、有时甚至五十个男人挤在一起住，到了发工资的时候，他们就想放松一下。”梅雷莱斯如是说，他也承认该工程会带来一些环境影响。

为了撰写本文，中拉对话联系了国家电网，但电子邮件中的问题并未得到回复。在公司的网站上，关于环境问题的部分显示为“正在建设中”。

Belo Monte power lines will clear extensive vegetation

2,000km transmission line aims to navigate sensitive biomes and complex environmental laws

Milton Leal

Constructing the first of two giant transmission lines transporting electricity from the Belo Monte hydroelectric project, northern Brazil, to a sub-station 2,100 kilometres away will clear areas of native vegetation equivalent to 1,700 football pitches in Brazil's Amazon and Cerrado Savannah.

State Grid, China's largest state-owned electric utility – which has become a major player in Brazil's electricity generation and distribution sectors since arriving in the country in 2010 – will construct the lines, the first of which will travel from the hydroelectric project in the Amazonian state of Pará to Ibiraci in Minas Gerais state in the power-hungry South East.

Once fully operational, Belo Monte will become the world's third largest dam with an installed capacity of 11,200 megawatts. The project, which has been beset by delays and controversies over its impacts on the ecology of the Xingu river and indigenous communities, began generating power for commercial use earlier this year. It is expected to be fully online in 2019.

According to the impact study for the first transmission line, 1,725 hectares of native vegetation in Brazil's two largest biomes will be lost during its construction, the majority of which (1,016 hectares) is from the Cerrado Savannah. The Amazon will lose 709 hectares of native vegetation. The line also runs close to 10 separate conservation areas, three of which are federally protected.

The second line will be 2,500 kilometres in length and will deliver power to the city of Rio de Janeiro.



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Environmental studies for this second line do not mention how much vegetation will have to be cleared in order to erect the transmission towers.

But the project has its own environmental advantages, according to Belo Monte Transmissora da Energia (BMTE), a State Grid majority-owned company established specifically for the project. The project will use ultra-high-voltage technology to transmit both AC and DC circuits of 800 kilovolts (kV).

This means electricity can be transported over longer distances while minimising transmission losses, meaning supplementary generation projects are not required and secondary impacts are avoided, according to Newton Zerbini, BMTE's environmental director.

As it requires fewer transmission towers, this Chinese technology should also result in fewer impacts on the ground. However, the task of factoring these into the project's design has been mostly left to local Brazilian consultancies.

LICENSING

Brazil has complex environmental legislation, comprising over 20,000 standards. Navigating this legal framework is a difficult task for foreign investors, who often see them as cumbersome and an impediment to economic development. The level of environmental regulation in Brazil has come into sharp focus since Michel Temer was confirmed as impeached former president Dilma Rousseff's replacement on September 1.

Temer's new cabinet includes members of powerful agribusiness lobbies, who have long argued for an end to environmental licensing. Environmentalists say that the approval of a proposed legal amendment (known as PEC 65/2012) will mean infrastructure projects could get the green light irrespective of their social or environmental impacts.

The environmental licensing process for energy projects in Brazil can cause delays that last for years. The licensing process for both Belo Monte transmission lines, however, was relatively swift.

"They obtained the preliminary licensing in six months," says Cláudia Barros energy coordinator at the Brazilian Institute of the Environment's (IBAMA) energy licensing board. Barros told *Diálogo Chino* that one of the reasons for this is that it did not require complementary projects.

The process of obtaining the license for the second line, included State Grid Brasil president Cai Honxian personally visiting IBAMA last year to discuss their application, delays to which the company sees as a major risk to projects. State Grid hired Concremat Ambiental to conduct the environmental impact studies.

Zerbini, who sits on joint board meetings on environmental issues with Chinese directors said they find it difficult to comprehend Brazil's regulations. "Things are very different in their country," he told *Diálogo Chino*.

According to Ênio Fonseca, president of the Environmental Forum of the Electricity Sector (FMASE), Chinese companies operating in Brazil prefer to delegate environmental issues to local partners. "If they don't have their own staff with the appropriate competencies, they have the resources to hire companies that specialise in these matters," he said.

State Grid is an important player in Brazil and now controls over 10,000 kilometres of transmission lines having recently acquired a 23% stake in CPFL Energia, one of the country's largest energy generation, distribution, and sales companies.

"1,725 hectares of native vegetation in Brazil's two largest biomes will be lost during its construction"

SOCIAL PROBLEMS

In Uruaçu, a settlement of 40,000 people in the Goiás countryside, BMTE has built accommodation for the transmission line's workforce just a few kilometres from the city centre. The project has created many jobs for the locals, but has also raised social concerns as three brothels have sprung up less than 20 metres from worker's housing. Thiago César Meireles, Uruaçu's secretary for the environment says this is normal.

"Wherever there is a large population of men, this type of trade opens. The workers live in houses with 10, sometimes 50 men. When they get paid, they want to relax," said Meireles, who also acknowledged the project's environmental impacts.

Diálogo Chino contacted State Grid for this article, but the company did not answer questions submitted by e-mail. On the company's website, the section that addresses the environmental issues of the projects is "under construction".

中国协助巴基斯坦建造全球最大太阳能电站

中国公司正在旁遮普沙漠中建造规模巨大的太阳能电站，这会是解决巴基斯坦不断加剧的能源危机的最有效方式吗

佐费恩·易卜·拉欣

旁遮普200多公顷的平坦沙漠上，40多万块太阳能电池在阳光下闪烁着光芒。这里就是以巴基斯坦国父默罕默德·阿里·真纳命名的Quaid e Azam太阳能发电站（QASP）。

这一装机容量10万千瓦级别的光伏（PV）太阳能发电厂由中国特变电工新疆新能源股份有限公司承建，历时短短的三个月便完成施工，并在八月份开始向国家电网销售电力。

这是价值460亿美元“中巴经济走廊”中的首个能源项目。“中巴经济走廊”是中国“新丝绸之路”的关键组成部分，连接巴基斯坦南部的瓜达尔与中国新疆西部的喀什。

这一10万千瓦级别的发电厂仍处于试运营阶段，而该能源项目的雄伟目标则是建成世界上最大的太阳能发电站；在2017年整体完工后，共计有520万块太阳能电池板，发电量将达到100万千瓦级别，足以为32万户家庭供电。下一阶段建设由另一家中国公司中兴能源负责，并已开工。

一年半前，这里还是一片荒芜，但如今在沙漠中央已经兴起了一座小型城市，驻扎着2千多名工人，陪伴他们的是重型器械、电缆、建筑群、水管和塔架。

减排促民生

这座太阳能发电厂的运营经理默罕默德·哈山·阿斯卡利称，科里斯坦沙漠（Cholistan）是建设太阳能电站的理想场所。这里不仅每天有13个小时的日照，还有大片平坦开阔的沙漠，极其适合建造此类大型商业项目。

阿斯卡利指出，相较于热电或水电项目，太阳能电站的巨大优势在于完工速度快，不需要大量维护。

QASP的首席执行官那加木·艾哈迈德·沙哈认为，太阳能发电厂将减少巴基斯坦的碳足迹，每年取代5.75万吨燃煤，降低9.075万吨碳排放。

巴基斯坦的目标是减少对化石燃料的依赖，尤其是进口的煤炭、石油和天然气，到2025年将化石燃料消费从目前的87%降至60%；提升可再生能源在能源结构中的占比，从目前的1%-2%左右提高到10%（不包括比重已达15%的水电）。

巴基斯坦的温室气体排放还不到全球的1%，但其碳排放每年以3.9%的速度增长。联合国秘书长亚洲特别顾问、世界气象组织气象学家卡马尔-乌兹-扎曼·乔杜里称，如果当前趋势继续下去，到2020年，巴基斯坦二氧化碳当量排放将达到6.5亿吨。

这座太阳能发电厂最终将为当地人民带来1.5-3.3万个就业机会，并吸引投资。

前所未有的规模

一些专家担忧这一项目的目标过高。世界自然基金会巴基斯坦分部的前总干事阿里·哈桑·哈比卜（现在经营一家提供屋顶太阳能解决方案的公司）对该项目表示欢迎，但他对政府“在未经测试的情况下贸然决定如此大的规模”感到担忧。这家电厂的规模要比世界上现有最大的太阳能电站还要大一倍，哈比卜如是说。



图片来源：Quaid-e-Azam Solar Power (Pvt.) Limited

“政府不如将剩下的90万千瓦产能建设在离消费区域更近的地方，比如说大型停车场的屋顶等，而不是把它们安装在遥远偏僻的地方”，哈比卜说道。

清洁能源的环境影响

由于太阳能目前还只是在能源结构中寻找立足之地，而且技术仍在不断进步，因此无法完全确定该电厂对环境和自然资源的影响。

但目前已经出现了一些明显的负面影响，例如：太阳能消耗过多的水。虽然QASP指出光伏电池板不需要太多的维护，但它们需要保持高度的洁净。据预计，清理一块电池板需要一升水。对这个水资源愈加短缺的国家而言，清理520万块电池板的耗水量将十分巨大。目前，清理40万块电池板需要30人花费10到15天才能完成。

“今年非常幸运，因为出现了空前的降雨，自动清洗了太阳能板”，阿斯卡利说道，并且称他们一直在寻求更为高效的清洁方案。

与此同时，不断增加的人类活动将会影响这一荒漠地区丰富的生物多样性和野生动植物，如印度瞪羚、豺猫、翎颌鸨等。

新路网的建设、大型光伏项目相关商业活动的增加的确会在这片土地上留下大量的“足迹”。这一点哈比卜表示认同。

沙哈为该项目辩解说，该项目建造在“无人居住”的“废弃”土地上。“我们已经进行了初步环境监测，并且在动工之前得到了环境保护部的同意”。

为了消除负面影响，哈比卜建议政府设立一个“环境与社会基金”。

25年后将有数百万块电池板报废，环保人士十分担忧它们的命运。这些电池板必须得到回收，提取其中的硅元素后，再进行淘汰。

巴基斯坦的能源危机

巴基斯坦多年来一直遭受严重的能源短缺，有些农村地区每天的断电时间长达20小时。由于大面积的断电和工厂停工，电力部门基本没有本地或外国投资。

巴基斯坦的总发电装机容量为2279.7万千瓦，但发电总量一直维持在1400万千瓦。最近几年，巴基斯坦的电力需求已经上升至1900万千瓦。

该100万千瓦的太阳能项目将有助于缓解能源紧张，阿斯卡利认为政府在水电和煤炭项目的投资同样也能够帮助缓解电力不足。

在今年5月举行的10万千瓦太阳能项目奠基仪式上，巴基斯坦总理纳瓦兹·谢里夫承诺断电现象将在2017-2018年结束。

并非皆大欢喜

但一些批评人士指出，投资方将从这一项目中赚得盆满钵满，而长期而言，消费者的花费将会增加。

“相较于太阳能，水电的成本要低50%且发电量与风电持平，为什么要纠结于太阳能？”伊斯兰堡的一位不愿透露姓名的政府能源专家对第三极（thethirdpole.net）说道。

他质疑太阳能的原因有以下几个。

首先，太阳能电站实际发电量要远低于官方宣称的100万千瓦。这位匿名专家指出，“平均来说，太阳能电站的发电量只有装机容量的20%左右；发电高峰出现在白天，但用电高峰却是在晚上，而夜间太阳能电厂将毫无用处”。因此，太阳能电站必须以“额外的成本”配备水力或热能等备用发电设施。但项目负责人却称10万千瓦的太阳能电站在高峰时期发电量能接近8.5万千瓦。

其次，太阳能的成本高于其他能源类型。QASP声称它以0.14美元的单位价格向电网出售电力。巴基斯坦国家电力传输配送公司的内部消息却称，它们的收购电价是每单位0.24美元。7年之后贷款还清后，价格可能降至每单位0.17美元。但无论如何，价格还是远高于水力、燃油、进口液化天然气等能源。上述能源的发电成本分别为0.07美元、0.11美元和0.12美元。

“这些仅仅是发电的数据；消费者还要承担电力传输过程产生的另外25%的成本，包括电能损失和偷电”，该专家指出。

“太阳能的财务合理性获得批准时，油价为每桶110美元”，该专家称，并感叹当时政府没能听取油价将会下跌的建议。

有观点认为，太阳能的价格最终会降下来，从而使其具备竞争力。伊斯兰堡智库“可持续发展政策研究院”副主任瓦卡尔·艾哈迈德说：“对新技术而言，在初始阶段，固定成本总是相对较高。但随着时间的推移、规模经济的实现，其价格也会下降”。从中国的经验可以看出，太阳能的效率将会不断攀升，太阳能板的价格将持续走低，艾哈迈德说道。

世界自然基金会的哈比卜认为，潜力高达1.2亿千瓦的风能更能满足巴基斯坦的能源需求，“与太阳能不同，风能在夜间也能持续发电”。

政治风险

巴基斯坦总理纳瓦兹·谢里夫的任期只剩下两年多的时间，因此，太阳能工程的成败对其至关重要。

“对于执政党巴基斯坦穆斯林联盟（N）来说，该项目有着极其重大的政治影响”，负责整

个区域安防部署工作的退役陆军中校 M.哈桑·马利克如是说。

“纳瓦兹·谢里夫已经向巴基斯坦人民承诺解决能源危机；同时巴基斯坦政府也想通过该项目向外界发出这样一个信息——巴基斯坦有能力进行超大型工程，也能够保证投资方安全。”

“据预计，清理一块电池板需要一升水。对这个水资源愈加短缺的国家而言，清理520万块电池板的耗水量将十分巨大”

太阳能发电厂所处的区域一直以来都是犯罪分子和极端主义的温床，因此马利克的任务十分严峻。“这座工厂不仅是国家财产，其中还有外国友人在工作，所以我们会打起十二分精神”，马利克说道。

在这座工厂中，每时每刻都有大约400名中国工人和2000名劳工在工作，安保人员则有800到900人。

文化差异

德国工程师亚历山大·海尔贝克已经在巴基斯坦工作了一年。对他来说，最困难的是适应其身后“真枪实弹”的安保人员。“这里的食物很不错，人们也很友好，我们有的时候也会在武装保安的跟随下去城里逛会儿，但晚上能做的事情有限。”

“夜间活动的确很少，”技术团队负责人默罕默德·哈桑·阿斯卡利肯定道。他从旁遮普省会拉合尔调派于此，工作一直很忙碌，他非常期待周末回家。

外国工人的回家次数要少很多。“我每三个月才回家10多天”，一位名叫张婷（音）的年轻中国工程师说，“我过两个月就想回家，但回去以后，我又会思念巴基斯坦和这里的工作”。

刚来的时候，张婷需要克服语言障碍和严酷的天气。她还要适应一种“全新的工作文化”。“遇到问题时，我们会邀请更多的巴基斯坦人加入我们的设计团队，从而消除分歧和冲突”，张婷如是说。

China helps Pakistan build world's largest solar farm

Chinese companies are building a massive solar power station in the Punjab desert, but is the project the most effective way of solving Pakistan's escalating energy crisis?

Zofeen T. Ebrahim

Some 400,000 solar panels, spread over 200 hectares of flat desert, glare defiantly at the sun at what is known as the Quaid-e-Azam Solar Power Park (QASP) in Punjab, named after Pakistan's founding father.

The 100 MW photovoltaic (PV) solar farm was built by Chinese company Xinjiang SunOasis in just three months, at a cost of around US\$130 million (833 million yuan) and started selling electricity to the national grid in August.

This is the first energy project under the US\$46 billion China-Pakistan Economic Corridor, a key part of China's "One Belt, One Road" (OBOR) strategy, linking the port at Gwadar in southern Pakistan with Kashgar in China's western region of Xinjiang.

The 100 MW plant is the pilot stage of a more ambitious plan to build the world's largest solar farm. Once complete in 2017, the site could have capacity of 5.2 million PV cells producing as much as 1,000 MW of electricity – equivalent to an average sized coal-fired power station – and enough to power about 320,000 households. Construction of the next stage is already underway, led by another Chinese company, Zonergy.

Eighteen months ago, the site was nothing more than wilderness. Now a mini city has emerged in the middle of the desert, with over 2,000 workers accompanied by heavy machinery, power transmission lines, blocks of buildings, water pipes and pylons.

REDUCING EMISSIONS, PROVIDING LIVELIHOODS

The Cholistan desert is the ideal spot for solar power, said Muhammad Hassan Askari, operating manager of the solar park. The area gets 13 hours of sunlight every day while the huge expanse of flat desert is ideal for a large commercial solar project.

The big advantage of solar power, he said, is that a large park can be completed faster than thermal or hydropower projects, which take much longer and require a lot of maintenance.

The solar park will also shrink Pakistan's carbon footprint, said Najam Ahmed Shah, the chief executive of QASP, displacing about 57,500 tonnes of coal burn and reducing emissions by 90,750 tonnes every year.

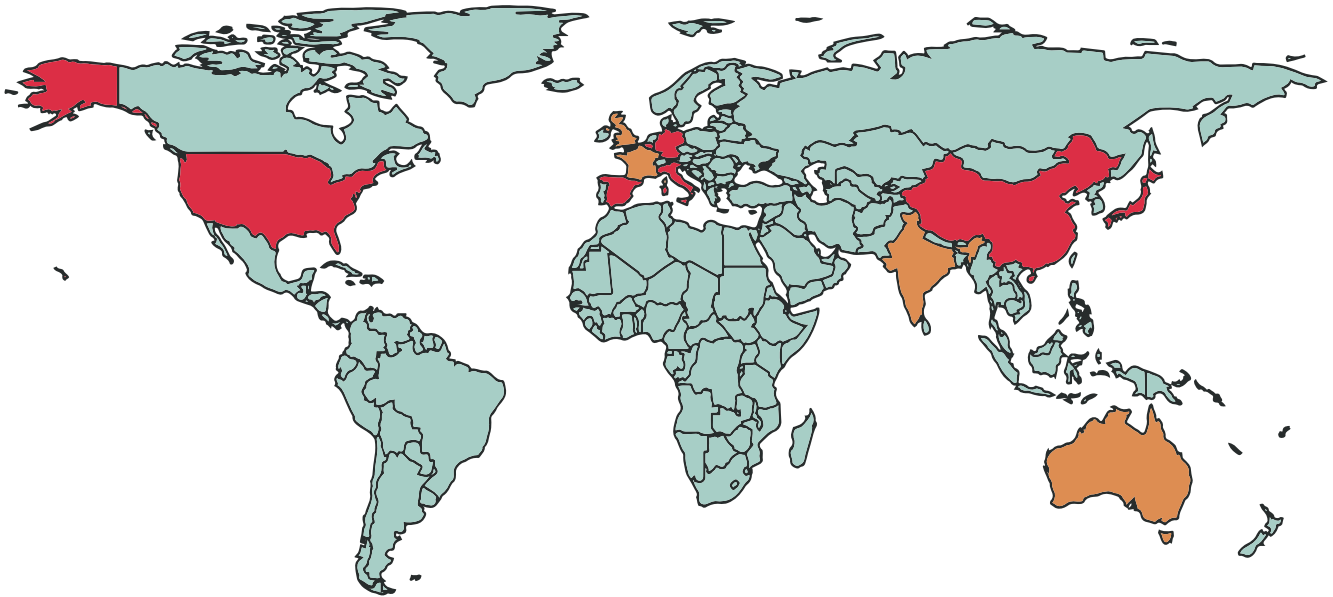
Pakistan aims to reduce its reliance on hydrocarbons, especially imported coal, oil and gas, to around 60% by 2025 from the present 87%. The country has a target to produce 10% of its total energy mix from renewables (excluding hydropower, which already constitutes 15% of the total energy mix). The current generation from renewable energy is around 1-2%.

While Pakistan contributes less than 1% to global GHG output, the country's carbon emissions are growing by 3.9% a year. By 2020 it will spew out 650 million tonnes of CO₂e (carbon dioxide equivalent) if the current trend continues, said climatologist Qamar-uz-Zaman Chaudhry, the UN secretary

Pakistan's solar potential

Pakistan has a huge solar potential, but little has been used so far

World's top 10 solar countries in 2014



Pakistan's solar industry in numbers

1,000MW

the size of the Quaid-e-Azam Solar Park, which will be the world's largest once completed

10,000

solar powered irrigation pumps

6,000

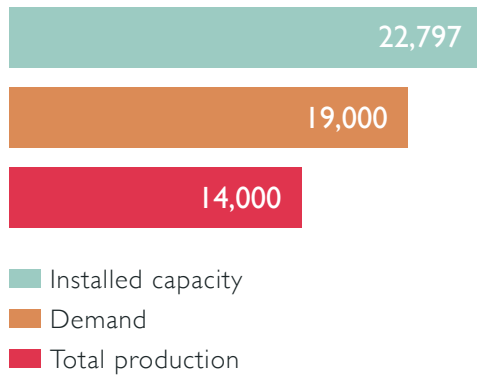
homes in Lahore with rooftop solar systems

300+

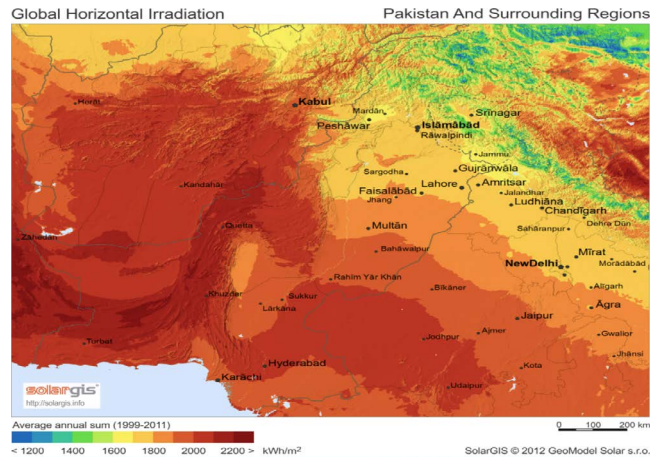
member companies of Pakistan's Renewable Energy Association

Power supply versus demand (megawatts)

The country suffers severe energy shortages

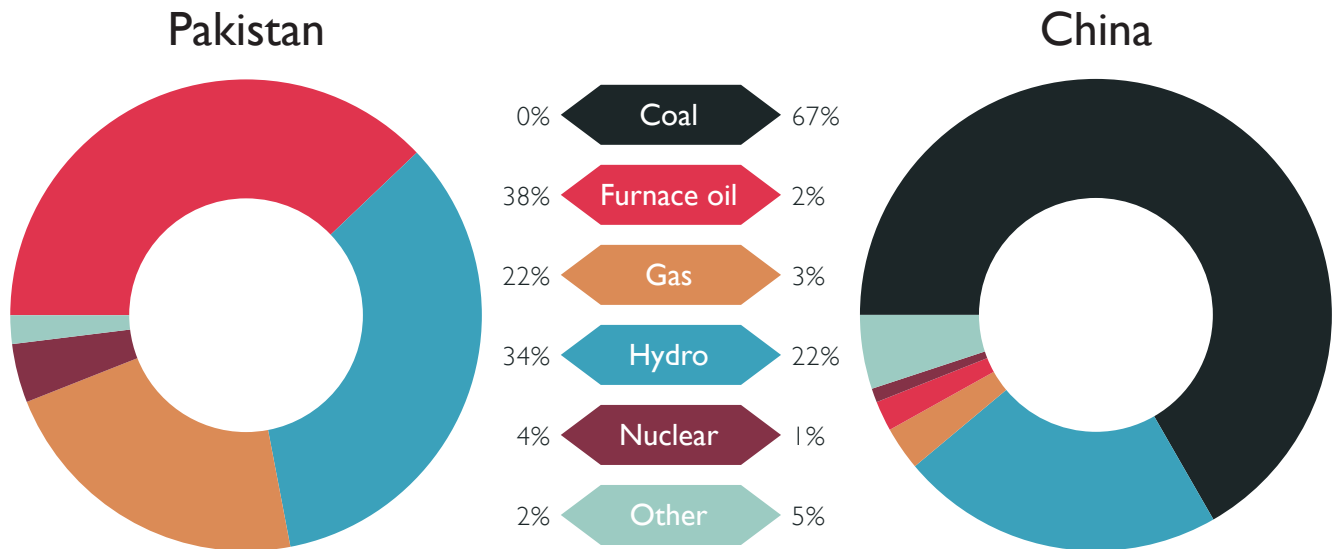


Solar resources in Pakistan



Parts of southern Pakistan receive the country's greatest solar irradiance. Clouds in other regions reduce these resources.

Sources of power: Pakistan versus China





Images by Quaid-e-Azam Solar Power (Pvt.) Limited

general's special advisor for Asia with the World Meteorological Organisation.

The solar park will also eventually generate 15,000 to 33,000 jobs for local people alone and attract investment to the region.

UNPRECEDENTED SCALE

However some experts worry the project is too ambitious and will require costly investment in grid infrastructure and maintenance. Former director general of WWF-Pakistan Ali Hassan Habib, who now runs a company providing rooftop solar solutions, welcomed the project but was uneasy about the government "jumping into untested scale". The plant will be almost double the size of the existing largest solar PV generating facilities worldwide, he said.

"It may have been better to build the equivalent remaining 900 MW closer to where electricity is consumed – on say the rooftops of large parking lots – rather than installing it in remote locations," he said.

ENVIRONMENTAL IMPACT OF CLEAN ENERGY

Because solar energy is still finding a foothold in the energy mix and technologies are evolving, not enough is known about the park's impact on the environment and natural resources.

Some negative impacts have already become apparent. For example, solar power consumes lots of water. PV panels may require little upkeep, according to QASP, but they need to be kept squeaky clean. An estimated one litre of water is used to clean each panel. Water consumed to clean the eventual 5.2 million panels built will be colossal for a country that is fast becoming water stressed. Currently, 30 people take 10 to 15 days to clean the entire 400,000 cells.

"This year we've been very lucky as there have been unprecedented rains and so panels were cleaned automatically," said Askari, who said they were looking for more efficient ways to clean panels.

At the same time, increasing human activities will disturb the arid region's rich biodiversity and wildlife, such as the chinkara (Indian gazelle), caracal cat and houbara bustard.

The construction of new road networks and supporting commercial activities associated with large solar PV projects do leave a substantial footprint on the land, agreed Habib.

Shah justified the project, saying it was built on uninhabited wasteland. “An Initial Environmental Examination was carried out and we got a nod from the Environment Protection Department before embarking upon the project,” he explained.

To offset any negative impact, Habib suggested the government set up an environment and social fund.

Environmentalists are also concerned about the fate of the millions of PV panels that will wear out within 25 years. The panels will have to be recycled to extract the silicon used to make them, and then replaced.

PAKISTAN'S ENERGY CRISIS

Pakistan has been in the grip of severe energy shortages for many years with some rural areas left without power for up to 20 hours a day. There has been little local or foreign investment in the industrial sector because of the extensive power cuts, and a number of factories have had to close down.

With an installed electricity generation capacity of 22,797 MW, the country's total production stands at just 14,000 MW. In recent years, demand has risen to 19,000 MW.

While the 1,000 MW of solar energy will help ease energy constraints, Askari said government investment in several other hydropower and coal projects should also help alleviate power shortages.

Prime Minister Nawaz Sharif promised power cuts would end by 2017-2018 at the inauguration ceremony of 100 MW solar project in May this year.

NOT EVERYONE IS HAPPY

But some critics say it is the investors who will get rich from the solar project, while consumers will have to pay more in the long run.

“Hydropower can produce energy for less than half the price of solar and about the same as wind so why a fixation on solar?” said an Islamabad-based energy expert working with the government, who spoke on the condition of anonymity.



He is sceptical of solar for a number of reasons.

First, the solar farm will actually produce far less than the much touted 1,000 MW of electricity. “On average, solar power plants deliver only about 20% of installed capacity, and the peak production is during the day, while the peak demand is in the evening when the plant does not produce anything,” the expert pointed out. Alternative arrangements have to be made to draw upon hydro or thermal sources at an “extra cost”. But the project’s owners say the 100MW solar plant could produce near to capacity at 85MW at its peak.

Second, solar energy is more expensive than other energy sources. QASP claims it is selling solar power to the grid at US\$0.14/unit. Sources within the National Transmission and Despatch Company say they have signed a deal to buy electricity at US\$0.24/unit, which will drop later to perhaps US\$0.17/unit after seven years when loans are paid off. In either case, this price is far higher than the \$0.07 for hydropower, \$0.11 for fuel oil and \$0.12 for imported LNG.

“And these figures are only for generation; another 25% must be added to it for cost of delivery to be borne by the consumer, accounting for losses and theft,” he pointed out.

“The financial justification for solar was approved when oil prices were at US\$110 a barrel,” he said, lamenting that the government refused to heed to advice that oil prices would drop.

Others argue that the cost of building and operating solar plants will fall over time, making it competitive. Vaqar Ahmed, deputy executive director at the Islamabad-based think tank, Sustainable Development Policy Institute, said: “For every new technology the fixed costs are higher in the initial years and diminish over time as economies of scale are achieved.” And learning from China, efficiency will rise and prices for solar cells will continue to decline, he said.

Wind could be a much bigger contributor to Pakistan’s energy needs, said WWF’s Habib, given its

potential of 120,000 MW. “Unlike solar, wind energy maintains production at night,” he pointed out.

POLITICAL RISKS

With just a little over two years left in his term, the success of the solar project is important for Prime Minister Nawaz Sharif.

“The project has huge political implications for the ruling Pakistan Muslim League (N),” said Lieutenant Colonel (Retired) M. Hassan Malik, who is responsible for the security arrangements of the entire QASP area.

“While Pakistan contributes less than 1% to global GHG output, the country’s carbon emissions are growing by 3.9% a year.”

“Through this project the government also wants to send out the message to the outside world that it has the capacity to undertake mega projects and will provide foolproof security to investors.”

Working in an area characterised by lawlessness and extremism, Malik’s job is challenging. “Not only is the park a national asset, we have foreign nationals working at the plant, so the sensitivity is two-fold,” he said.

There are 800 to 900 men guarding the site where around 400 Chinese workers and over 2,000 labourers work at any given time.

CULTURE SHOCK

For Alexander Halbich, a German engineer who has been at the park for over a year, getting used to heavily-armed security guards following him around was the most disconcerting aspect of his new job. “The food is good, the people are extremely hospitable and we do go out to the city once in a while tailed by armed guards, but there is little to do after dark,” he added.

“There isn’t much to do in the evenings,” agreed Muhammad Hasan Askari, who heads the technical team. Hailing from Lahore, Punjab’s capital, he keeps himself busy with work and looks forward to going home at the weekends.

Foreign workers get to go home less often. “I go every three months for ten days or more,” said Zhang Ting, a young Chinese engineer. “I’m quite ready to go home by two months but when I do go back, I miss Pakistan and the work,” she added.

Ting had to deal with a language barrier and hostile weather when she arrived to work at the site. The Chinese engineer also had to adjust to a very different work culture.

“We resolved the issue by getting more Pakistanis on our design team to crease out the differences and conflicts,” she said.

贝加尔湖生态环境受到威胁，中国丝绸之路项目叫停

尤金·西蒙诺夫认为，中国投资的大坝恐对贝加尔湖生态系统造成破坏，凸显出新丝绸之路沿线开发缺乏环境保护

西蒙诺夫·尤金

每个中国人人都知道西伯利亚有这么一个地方——贝加尔湖。贝加尔湖在中国之所以有名，不一定是因为那里独特的生物多样性，也不一定是因为它是世界上最深的湖泊。而是因为每年冬天，中国的广播里就会提醒听众们“来自贝加尔湖的冷气团正在南下……”

中国人对贝加尔湖价值的认识与日俱增，越来越多的中国游客来这里观光旅游，一些中国商人甚至在贝加尔湖周围投资搞起了旅游探险。近来，中国饮用水品牌地球之井更是将贝加尔湖水制成瓶装水销往中国，一解国人之渴。但这里人与自然和谐共处的关系可能遭到严重破坏，原因在于中国进出口银行承诺向蒙古国的一个项目提供一笔软贷款，而该项目可能打破这个古老湖泊本就十分脆弱的生态平衡。

2015年11月11日，中蒙两国发表联合声明，建设包括重点煤炭工程和水电工程在内的大型工业项目。随后，蒙古国获得中国进出口银行10亿美元的贷款，计划用于额根河水电站项目的建设。蒙古国已经与中国葛洲坝集团签订总价1亿美元的特许经营合同，由后者负责进场道路和桥梁建设，并已于冬季开工。

这些能源计划是中国新丝绸之路计划的重要组成部分，其目的是加强中国与邻国之间的联系。但今年春天，中国暂停了额根河大坝项目的建设，直到完成尽职调查，确定大坝建设产生的跨境影响。这一事件凸显出新丝绸之路战略缺乏环境保护措施和绿色发展的指导方针。

大坝的破坏

该水电项目位于额根河上，靠近与贝加尔湖水主要来源地色楞格河的交汇处。10年前，亚洲开发银行曾有意促进蒙古国可再生能源的使用，虽然计划失败，但在其主持之下完成了对蒙古国水电大坝建设可行性的研究。虽然蒙古国内河流快速干涸，导致其水电潜力比风能和太阳能整整小了3000倍，但世界银行还是跟随中国步伐，分析了多个煤炭项目以及另外两座位于贝加尔盆地的大坝项目的可行性，其中拟建的Shuren水电大坝就位于色楞格河之上。

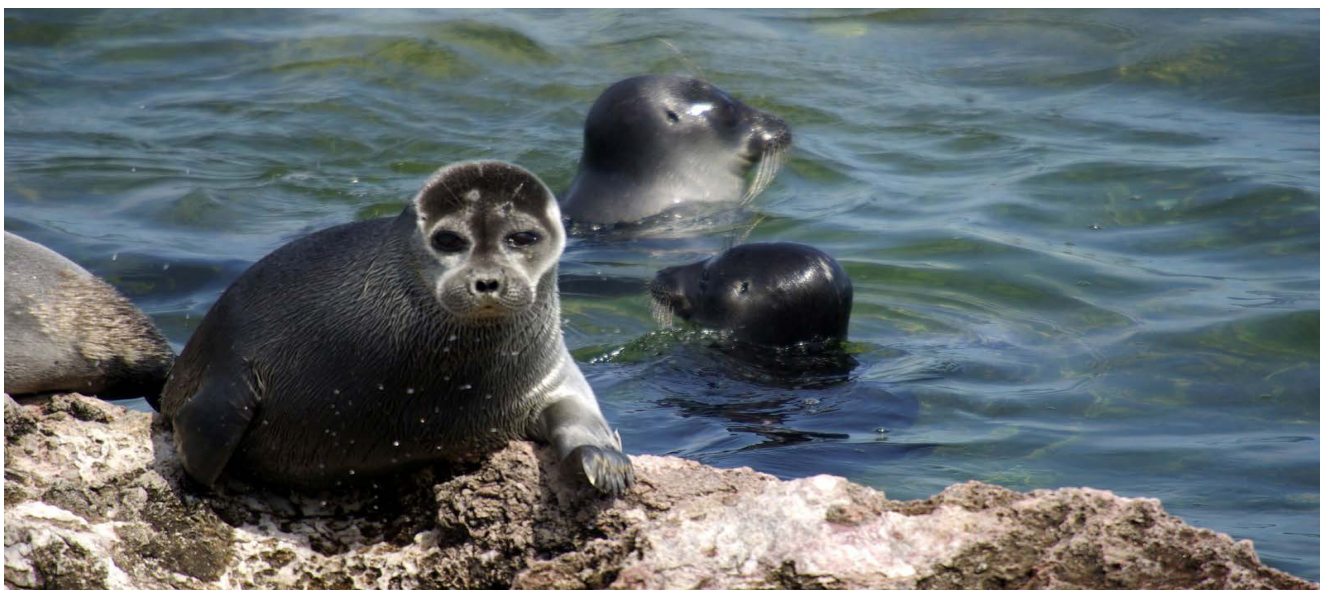
“贝加尔湖蕴藏着全球20%的淡水资源，生活着2500种水生生物，影响着北亚和北极盆地的区域气候”

蒙古国政府还打算在贝加尔盆地新建10座水电大坝，称这是为了使能源部门“去碳化”，同时减少对俄罗斯的能源依赖，获得能源独立。

气候影响之下的贝加尔湖

国际自然保护联盟2015年报告称，这些项目对贝加尔湖造成的综合影响目前还不完全清楚，但该湖泊作为教科文组织世界遗产的地位可能会受到严重影响。

2015年7月，世界文化遗产委员会在波恩举行的一场会议上讨论了这些大坝可能对贝加尔湖造成的损害。委员会要求对额根河水电大坝



贝加尔湖蕴藏着全球20%的淡水资源，生活着2500种水生生物。图片来源：Sergey Gabdurakhmanov

等三个项目进行影响评价和累计影响评价，并要求蒙古国（在默认情况下，和中国一起）在世界遗产中心完成大坝所有的评估和审查工作之前，不得批准任何此类项目。

贝加尔湖蕴藏着全球20%的淡水资源，影响着北亚和北极盆地的区域气候，那里生活着2500种水生生物，被当地的蒙古国和俄罗斯居民尊为“神圣之海”。

1960年，俄罗斯在上游建设伊尔库茨克水电站，已经严重破坏了贝加尔湖的生态系统，再加上蒙古国长时间干旱，导致湖泊水位下降。气候变化和污染导致贝加尔湖湖岸出现生态和社会经济双重危机，侵入性藻类大量繁殖，渔业产量下降，色楞格河三角洲地区发生严重泥炭火灾的次数增加。

标准薄弱

作为20国集团的领导者，中国在国内提倡建设更加清洁的环境，在全球范围内推广“绿色发展”。那它又是为什么会失误地投资额根河水电站项目的建设呢？

其原因在于，中国新丝绸之路计划（又名一带一路）在设计上仍存在一些短板。该计划目的在于将中国与邻国联系起来，融入国际市场，但无论该计划对新型经济合作能够起到何种促进作用，丝绸之路计划目前仍缺乏环境保护措施和具体的绿色发展指导方针。战略环境评估可以避免环境受到破坏，并且有助于选出

最佳替代方案，而发展“新经济走廊”的宏伟计划却缺少了这一环。

“一带一路”六大经济走廊

最后，还缺乏针对丝绸之路沿线居民设立的征询机制，因而中方投资者要么无法得到与沿线环境和社会风险相关的真实信息，要么是信息严重滞后。额根河水电站项目就是这样的例子，监督机构消息滞后，项目开工之后才要求葛洲坝集团暂停建设。

据葛洲坝集团和蒙古国外交部消息称，中国国家发展和改革委员会担心该项目对跨境水域造成影响，因而暂停了大坝建设。中国进出口银行也要求蒙古国方面对额根河水电站开展尽职调查。与此同时，该项目仍处于不确定状态。

最有可能的情况是，中国方面急于与蒙古国达成能源合作，还没来得及评估各种投资选择对环境造成的影响，也没有考虑到相关跨境水域的问题。而今年春天，进出口银行突然收到了色楞格河三角洲俄罗斯卡班斯克区人民的来信，才知道自己支持的项目可能会对贝加尔湖，中国冬天冷空气的来源地造成破坏。

去年，6.4万人签署请愿书，提出了一条替代发展路径。他们要求蒙古国、俄罗斯和中国放弃水能和煤炭，发展太阳能和风能。作为一个志在发展大规模可再生能源产业的国家，中国应该听听这些声音。

Silk Road project suspended over threats to Lake Baikal

The China-funded dam highlights lack of green safeguards along the New Silk Road

Eugene Simonov

Every Chinese person knows about one place in Siberia – Lake Baikal. It is not necessarily famous for its unique biodiversity or for being the deepest lake in the world. Every winter, radio broadcasts warn Chinese listeners about “cold air masses that are moving in from the Lake Baikal”. It’s also the subject of a popular folk song.

Lake Baikal contains 20% of the world’s freshwater resources and affects the regional climate of North Asia and the Arctic Basin. The lake is home to 2,500 aquatic species and local communities in Mongolia and Russia revere the lake as the “Sacred Sea”.

Chinese people are beginning to value Lake Baikal and are increasingly coming as tourists to see it. Some visitors are even investing in the risky tourism business around the lake. Recently the China-based Well of the World company proposed pouring Baikal water into bottles to quench Chinese thirst. But this nature-friendly relationship could be severely damaged as the China Export-Import Bank (China EXIM Bank) has pledged a soft loan to Mongolia for a project that may tip the fragile ecological balance of the ancient lake.

On November 11, 2015, Mongolia and China issued a joint statement that calls for the development of large industrial projects including major coal projects and hydropower. For that Mongolia secured a US\$ 1 billion (6.6 billion yuan) loan from the China EXIM Bank, which it intends to use for the construction of the Egiin Gol hydropower project. A US\$ 100 million concession for access roads and bridges has

been awarded to China Gezhouba and construction activity began during the harsh winter months.

These energy schemes are essential parts of China’s “One Belt, One Road” (OBOR) initiative, aimed at integrating the country with its neighbours. But in the spring, Chinese authorities intervened to suspend the dam project until due diligence is carried out on transboundary impacts. This highlights the lack of environmental safeguards and green development guidelines under the OBOR, which provides polluting state-owned companies that are, no longer welcome at home, with opportunities to invest in infrastructure, energy and heavy industry in neighboring countries.

DAM DAMAGE

The hydropower project is located on the Eg River near its confluence with the Selenge River, the main source of Lake Baikal. Feasibility studies for the hydropower dam were completed ten years ago under the auspices of the Asian Development Bank in an ill-directed attempt to boost renewable energy use in Mongolia. Although electricity generation potential of the rapidly drying rivers of Mongolia is 3,000 times smaller than that its wind and sun potential, the World Bank followed the Chinese script. Its feasibility studies for several coal projects and two more large dams in the Baikal Basin, one of them – the Shuren Hydro dam – is planned on the Selenge River itself.

Mongolian government agencies are looking at 10 more hydropower dam locations on the Baikal Basin, justified by the need to “de-carbonise” the energy sector and achieve energy independence from Russia.

CLIMATE STRICKEN LAKE

The International Union for Conservation of Nature reported in 2015 that the combined effects of the projects on the lake are not fully known and could seriously damage its UNESCO World Heritage status.

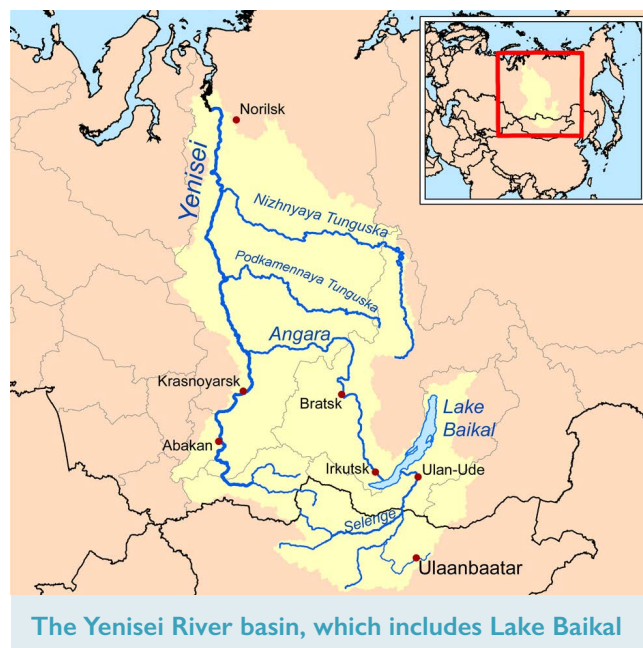
The World Heritage Committee discussed the dams that could damage Lake Baikal at a meeting in Bonn in July 2015. The committee set forth requirements for an impact assessment of Egiin Gol and two other projects, as well as a cumulative impacts assessment for all three dams. The committee requested Mongolia (and by default, China) to hold approval of the projects until all assessments for dams have been completed and reviewed by the World Heritage Centre.

The ecosystem of the lake has already been severely damaged by the construction of the Irkutsk Hydropower plant built upstream in Russia in 1960. This, along with prolonged drought in Mongolia, has led to a decline in the lake’s water levels. Climate change and pollution combined to create an ecological and socio-economic crisis on the Baikal Lake shore with massive invasive algae blooms, a decline in fisheries and an increase in severe peat fires in the Selenge River delta.

WEAK STANDARDS

So how did China, which is prioritising a cleaner environment at home, and promoting “green development” globally as a G20 leader, make such a dangerous mistake by starting work on Egiin Gol?

This is a consequence of gaps still present in the design of China’s OBOR initiative aimed at integrating the country with its neighbours and global markets. However great it is at boosting new economic cooperation, the OBOR so far lacks clear environmental safeguards and specific green development guidelines. Grand plans for “new economic corridors” are not subjected to strategic environmental assessments to avoid environmental damage and select the best alternatives.



Finally, there is no mechanism for consultation with stakeholders living along the Silk Road. Without this, Chinese investors lack information on actual environmental and social risks. Or they get it too late, as in this case when supervising agencies ordered Gezhouba to stop construction.

China’s National Development and Reform Commission suspended the project over concerns about transboundary impacts of the dam project, according to sources within the company and the Mongolian foreign ministry. China EXIM Bank has also asked their Mongolian counterparts to conduct due diligence on Egiin Gol. Meanwhile the project is in limbo.

Most likely, Chinese agencies pursuing energy cooperation with Mongolia had not assessed the environmental effects of various investment options or the associated trans-boundary water issues. Then, all of a sudden this spring, the EXIM Bank received a letter from the people of Russia’s Kabansk District in the Selenge River Delta and learned that the project it was supporting could harm Lake Baikal, which is the source of cold winter air in China.

An alternative way forward was proposed by the 64,000 people who signed a petition last year asking Mongolia, Russia and China to support solar and wind instead of hydropower and coal. China, with its ambitions to develop a large-scale renewable industry, should listen to these voices.

亚马逊热带雨林中即将崛起新城

一条由中国建设的西起秘鲁太平洋沿岸、东到巴西大西洋沿岸的新铁路将横穿原著居民聚居地，带动沿线多座新城的建设

米尔顿·利尔

拟建的两洋铁路将横穿1000多公里的原始森林，将秘鲁西海岸和巴西东海岸连接起来。两国官方机构都对该条铁路可能带来的社会和环境影响表示关注。

在今年1月发表的一份报告中，巴西国家铁路工程建筑公司（Valec）称，（从巴西）建设一条横跨巴西-秘鲁边境的铁路工程量庞大，所以有必要在亚马逊热带雨林中心建设一座新的城市。

Valec对中铁二院的路线选择持不同意见，认为该线路将穿越亚马逊地区和安第斯山脉，将一个原住民保护区一分为二，并会破坏脆弱的生态系统。

今年6月29日，在巴西参议院举行的一场听证会上，中铁二院的代表们表示，巴西和秘鲁对该铁路的环境可行性研究负全责。

在秘鲁政府发表的一份罕见的声明中，秘鲁文化部和环境部向（环境法和自然资源领域的）非政府组织DAR表示，在这条5000公里长的运输走廊开工建设之前，必须征求原住民部落的意见。

2014年，中国国家发展和改革委员会与巴西和秘鲁两国的交通部门首次就该项目达成共识。2015年5月，中国总理李克强和时任巴西总统的迪尔玛·罗塞夫2016年5月12日被弹劾）和前秘鲁总统奥良塔·乌马拉签署了谅解备忘录，以推动开展两洋铁路项目可行性基础研究。

据中铁二院估计，这条耗资100亿美元（660亿元人民币）、（建成后）将连通大西洋和太平洋的铁路计划将于明年启动，预计到2025年建成。

该铁路将取代巴拿马运河，成为拉丁美洲成千上万吨粮食、金属制品和矿产对华出口的新通道。

路线规划

其他备选路线由于穿过横跨巴-秘两国边境、并受两国法律保护的Serra do Divisor国家公园而被否决。

剩下的3条规划路线分别为北线、中线和南线。虽然中铁二院最支持北线，但南线对环境造成的影响最小，并且还绕过了原住民聚居区和保护区。

但是，这条线路却最不被中铁二院看好。因为这条线路不仅造价更高，而且途经地区最高海拔达到4400米，地形复杂。

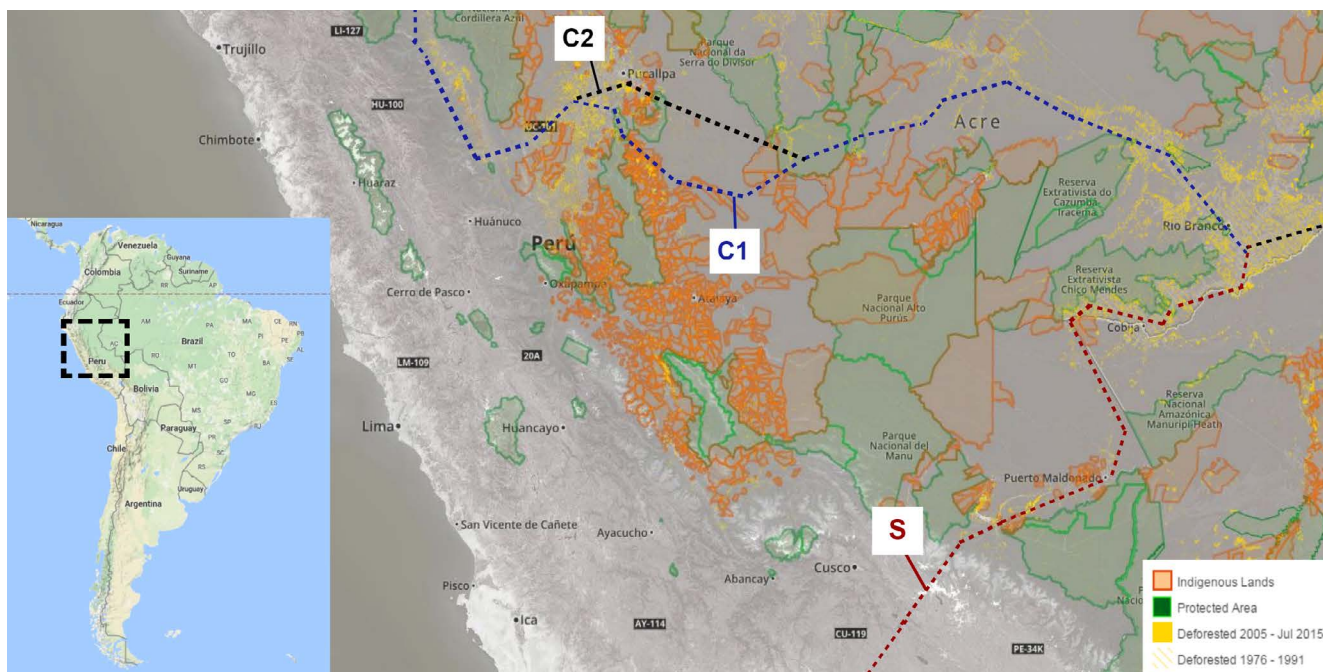
巴西

巴西境内的工程将从位于该国农业主产区马托格罗索州的Lucas do Rio Verde市开始，然后绵延3300公里，直至巴西阿克里州与秘鲁相邻的边界，然后再延伸1700公里到达太平洋沿岸。

Valec表示，鉴于巴西和秘鲁的铁路轨距不同（前者1.6米，后者1.4米），需要在穿越边境的地方设置一个中转站。Valec说：“我们需要建设一座新城供项目员工居住，而且是在一个环境脆弱、人迹罕至的地区建设这么一座城市。”

秘鲁的担忧

从DAR获得的文件来看，秘鲁文化部和环境部也关注这条铁路将给沿线原住民带来的影响。



两洋铁路的大致路线方案。中铁二院倾向C1路线。图片来源：InfoAmazonia/DAR，[点击地图查看大图](#)

秘鲁环境部表示，北线穿过受保护的Altomayo森林。环境部和巴西官方意见一致，认为工程启动之前应当征求当地居民的意见。

融资和基础设施区域集团成员组织DAR的研究人员们向中拉对话表示，他们担心这个项目会和贯穿巴西、秘鲁，连接大西洋和太平洋的高速公路一样，在建设过程中不尊重亚马逊河流域内的部落。

翻越高山

中铁二院工程师郑建亚（音译）说：“他们说地质条件会影响铁路的建设。但是中国的地质条件更为复杂，这让中国的铁道建筑技术更为精进。”他还说：“我们会攻克那些潜在的地质难关。”

巴西环境部门已经批准了该国境内（连接中、西部地区的）1600公里的铁路建设（预计将跨越96条常年性流河）。中国承建商们目前正在和戈亚斯州、马托格罗索州、朗多尼亚州磋商。之后，FICO会暂定项目启动时间为2017年。

巴西政府各部门正在等代总统米歇尔·特梅尔发布公共支出公告。尽管许多有影响力的参议员在国会上支持这个项目，但是这条铁路并不一定会进入优先投资项目之列。

融资

目前为止，建设这条横跨大陆的铁路的融资方案还没有正式公布。可能采取巴西向中国贷款的方式，或公私合作这种在巴西越来越常见的模式。

支持该项目的人表示，他们相信与当地企业建立合作伙伴关系会促进区域发展。

国家农业联盟顾问路易斯·安东尼奥·法耶表示，2014年巴西中西部新建成的高速公路（BR-163）已经使这条两洋铁路失去了竞争力。

现在，更有吸引力的方案是将初级产品运到帕拉州的Miritituba市，然后经塔帕诺斯河运到圣塔伦的码头，再从那里通过巴拿马运河或者绕道好望角穿越太平洋。

跨国物流公司嘉吉南美运输部部长罗德里戈·康乐说：“更合理的路线是，将产品由北边运出去，并且水路是最便宜的运输方式。”嘉吉是世界上最大的大豆和玉米出口公司之一。其在巴西有大量的业务，其中80%是出口到中国。

但是其他人并不这么认为。

据中铁二院的初步估计，与当前运输路线相比，两洋铁路能够使粮食和矿产的单位出口成本降低30美元。一旦投入运营，该项目可承运巴西对华出口总量的1/3，每年可输出大约3500万吨大豆。但是不论节约多少运输成本，亚马逊流域的居民并不会因此而受益。

Fears raised over new Amazon railroad

A Chinese railway line linking the coastlines of Peru and Brazil will create towns and cut through indigenous settlements

Milton Leal

Official bodies from Brazil and Peru have expressed concern about the social and environmental impacts of the proposed interoceanic railway, which will connect the coast of Peru and Brazil cutting through a thousand kilometres of pristine rainforest.

Brazil's state-run rail operator Valec said construction of a stretch of the route straddling the border with Peru, proposed by the China Railway Eryuan Engineering Group (CREEC), represented an enormous task that would necessitate the creation of a new city in the heart of the Amazon, in a report in January.

Valec criticised CREEC's choice of route through the Amazon and the Andes mountain range, which bisects an indigenous reserve, as damaging to sensitive ecosystems, in the report issued in response to initial feasibility studies by CREEC.

During a public hearing in the Brazilian senate on June 29, CREEC representatives stated that the responsibility for conducting studies on the environmental viability of the railway lied with Brazil and Peru.

In a rare statement from the Peruvian government, the ministries of culture and the environment told local non-governmental agency DAR (Environmental Law and Natural Resources) that it was imperative that native communities be consulted on the 5,000-kilometre logistics corridor prior to construction.

The Brazilian and Peruvian transport ministries and China's National Development and Reform Commission first agreed to look into the project in 2014. In May 2015, the now suspended Brazilian

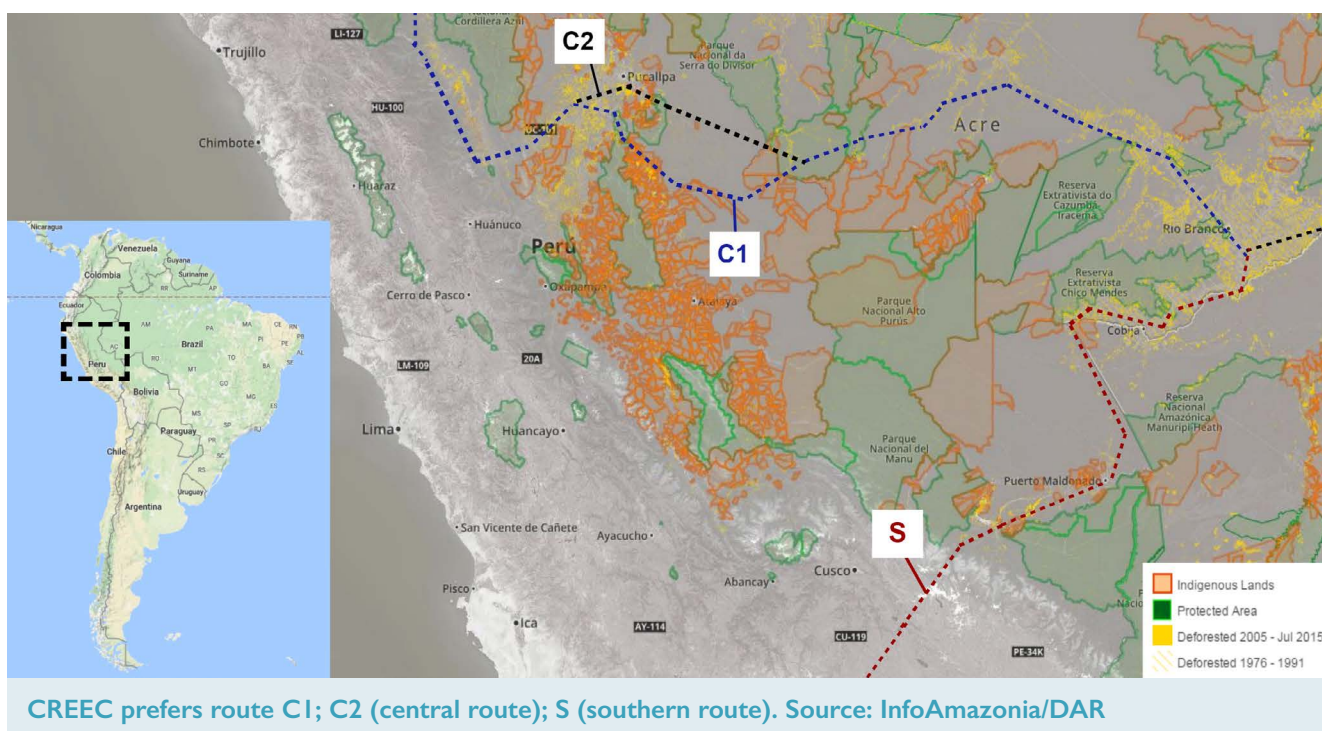


A proposed railroad could see new settlements spring up on the Brazil-Peru border, close to the Sierra do Divisor National Park (Image by Agência de Notícias do Acre)

president Dilma Rousseff and former Peruvian president Ollanta Humala, signed a memorandum of understanding (MoU) with Chinese premier Li Keqiang to proceed with viability studies.

Work on the US\$10 billion (66 billion yuan) project, which would link the Atlantic and Pacific oceans by rail for the first time, is scheduled to begin next year and be completed by 2025, according to CREEC.

The railway will provide an alternative to the Panama Canal, the main channel by which Latin American countries export millions of tonnes of grain, metals and minerals to China and other countries each year.



THE ROUTE

The three routes originally proposed are to the north, the centre, and south of the Serra do Divisor National Park, which straddles the Brazil-Peru border area and is protected by laws in both countries. The north road is CREEC's favoured option because it lies on lower ground and so would be less complicated and costly to construct. By contrast, the southern route would involve complex geological challenges since construction would have to take place at altitudes of up to 4,400 metres.

COUNTRY CONCERNS

Work on the Brazilian stretch is set to begin in the city of Lucas do Rio Verde, in Mato Grosso state, the country's agricultural heartland. From there, the line extends 3,300 kilometres to the border between Peru and the Brazilian state of Acre, and then another 1,700 kilometres to the Pacific coast.

According to Valec the border crossing would require a transfer station to be built, since the gauge of railways differs in Brazil (1.6 metres) and Peru (1.4 metres). "Besides the need to establish a new city to house

all the employees involved in the process, all this [takes place] in a very environmentally sensitive and sparsely populated region," Valec said.

Peru's ministries of culture (MINCUL) and the environment (MINAM) also expressed concern about the impact on indigenous communities living in its path, documents obtained by DAR revealed.

MINAM noted that the proposed northern corridor crosses the protected Altomayo forest, and agreed with Brazilian authorities that local communities should be consulted before construction begins.

Researchers at DAR, a member of the Regional Group of finance and Infrastructure, told Diálogo Chino they feared the project would replicate the disregard for Amazonian communities shown during construction of the interoceanic highway.

"The railway will provide an alternative to the Panama Canal, the main channel by which Latin American countries export to China"

MOUNTAINS TO CLIMB

Zheng Jianya, an engineer at CREEC, said: “They say the geology can be an obstacle. But the geology is even more complex in China, which has made Chinese railway construction technology more refined,” adding: “The potential geological obstacles will be overcome.”

In Brazil, a 1,600-kilometre stretch of the project (the Centre-West Integration Line), expected to cross 96 perennial rivers) has been granted permission to proceed by environmental authorities. Chinese contractors are now negotiating agreements with the states Goiás, Mato Grosso and Rondônia, through which Brazilian credit bureau FICO would pass with a provisional start date of 2017.

The Brazilian ministries are awaiting announcements from new president Michel Temer on public spending. It is not certain that the railway will remain among investment priorities, although many influential senators defend the project in the capital Brasília.

FINANCE

The funding model for construction of the transcontinental railway has not been publically disclosed. Investments could take the form of a loan from China to Brazil. Another possibility could be a public-private partnership (PPP), which are increasingly common in Brazil.

Supporters of the project say they believe that partnerships between Chinese enterprises and local companies encourage regional development.

According to Luiz Antonio Fayet, a consultant at the National Agricultural Confederation, the construction in 2014 of a new highway (route BR-163) in the midwest of Brazil has rendered the interoceanic railway uncompetitive.

The highway is an attractive option for transporting products out of the country. The route sees good travel up to Brazil's northern city of Miritituba in Pará state, then along the Tapajós River to the port of Santarém for shipping across the Pacific via the Panama Canal or around the Cape of Good Hope.

“It makes sense to move production through the north, and the most economical mode of transport is the waterway,” said Rodrigo Koelle, South America transport director at logistics multinational Cargill, one of the world's largest exporters of soybeans and corn. Cargill has extensive operations in Brazil, 80% of which go to China.

BUT OTHERS DISAGREE.

According to CREEC's preliminary estimates, the transcontinental railroad could reduce the cost of exporting grain and minerals by US\$ 30 per tonne compared to current routes. And once operational, the project could support a third of total exports from Brazil to China, some 35 million tonnes of soybeans, annually. No matter the size of the saving, it is unlikely that the local Amazon peoples will benefit.

中国赴缅投资面临更加强硬的法律

继饱受争议的密松水电站事件之后，昂山素季对高风险项目投资者的要求愈发苛刻

薇姬·鲍曼

2016年3月31日，缅甸新政府上台执政。新政府名义上由新任总统领导，实则是昂山素季掌权。全球各国政府和商界人士都对新政府未来工作的优先事项和态度翘首以盼，而最关注这一问题的非中国莫属了。

目前，昂山素季已经重申了自己的愿望，表示只要来源可靠，她期待看到来自各方的投资。她还明确下令自己的团队清除腐败，强化关于收受礼品的规定。新政府还颁布了临时伐木禁令。矿业部门和环保部门合并，以及后续派遣代表团前往帕敢玉矿及缅北金矿等受损采矿点，这些都说明新政府将会把减少矿业带来的破坏作为首要任务。

这些破坏性活动许多都涉及中国商人。这些人大多从事跨境贸易，且与缅甸各类武装团体有往来。虽然这些业务绝不能代表中国，但不幸的是，很多缅甸人就是透过它们看到了中国的商业。

但也得承认，无论在政治、经济或是安全方面，中国都是缅甸最为重要的伙伴。中国在基础设施、物流以及制造业方面负责的投资是缅甸发展的必要条件。

密松电站是一个一直笼罩着中缅关系、且牢牢占据每一场新闻发布会焦点的问题。该电站计划由中国方面出资并建造，是伊洛瓦底江7个梯级大坝中最大的一个。缅甸前领导人丹瑞大将曾大力推广该项目。但2011年，由于缅甸全国普遍抗议该电站的建设，时任总统吴登盛暂停了这个项目。这也是当时新国民政府采取的第一项行动，这让缅甸人民相信新的政府将不同于之前数十年的独裁统治。

不幸的是，5年后，这个问题摆在了昂山素季的面前。就在她开启访华之旅前不久，昂山素季宣布成立新的委员会，负责电站项目的检查工作。委员会的职权范围包括检查：电站技术是否符合国际标准和当地法律；电站对社会和环境造成的正负面影响，包括对水资源、水道、伊洛瓦底江的长期可持续性以及发电和商业方面造成的影响。此外，委员会还需对中缅两国投资者的共同利益提出建议。按计划，该委员会需在2016年11月11日之前提交相关报告。

“在这个充满不确定性的过渡阶段，企业如果能够按照国际标准，实现运营透明化，就将做到顺应和满足目前缅甸人民对投资者的期望和要求”

很难说，一个团体要怎样才能能在3个月的时间内完成范围如此广泛的审查，此类工作议程最好交由专家主持，最后得出一份全面的环境影响评估（EIA），而这样一份评估从完成，到全面公开，再到公众讨论，可能需要花费数年时间。很不幸，2006年缅甸与中国国家电力投资集团（CPI）签署谅解备忘录的时候，这样的规定还没有出台。

然而，我们谈论的是现在。缅甸于2012年首次设立环保部门并通过了《环境保护法》，随后又于2015年12月29日出台环境影响评估程序。该规例明确指出，由于缅甸国家法律缺乏对土



横跨伊洛瓦底江的大桥。昂山素季成立了特别委员会负责评估备受争议的密松水电站。图片来源：Sean Ryan

著人民权利和重新安置等问题的规定，故需严格遵守国际标准，如国际金融公司（IFC）以及亚洲开发银行（ADB）在这方面的规定。

2008年，中国国家电力投资集团确实在缅甸能源部的要求下对密松电站建筑群开展了一次环境影响评估，但此次评估结果直到2011年抗议爆发之后才公开，且因缺乏“替代方案分析”、没有对下游影响以及7个大坝累积造成的影响予以适当分析、并几乎没有进行社会影响评估等原因而遭到广泛批评。国家电力投资集团此次评估缺乏有意义的基线数据，无论如何都需根据上游变化、过渡采伐造成的水流和泥沙流、气候变化、以及其他地区水电站的经验教训，进行重新审核。

密松电站新的环境影响评估还需考虑到，项目的提出者需要对项目给上下游带来的所有影响的成本负责。要想继续推进项目，毫无疑问就必须做出改变。即便不考虑缅甸国内普遍反对电站建设这一问题，电站的商业前景这一鲜少受人关注的方面也将受到进一步损害。密松电站调查委员会可能会简化新的环境影响评估流程。到最后，面对如此多的不确定性和反对，密松电站必然会走向根据合同有序取消项目并协商补偿的结局。

密松电站带来的经验教训

虽然密松电站独此一个，但这一事件带来的经验教训却和其他投资者息息相关，尤其是那些与日本和西方投资者相比，更倾向于投资水电站、矿产、公路等高风险项目的企业（大多为中国企业）。

密松电站告诉我们的第一件事是，目前缅甸国内存在一套环境和社会保护的法律法规。尽管这套框架的规定不够明确，民众对其理解不够透彻，执行工作也不够到位，但它终究构成了法律义务。鉴于缅甸法律缺乏相关规定，这一框架主要指世界银行/国际金融公司的操作标准。所以，即便缅甸法在这方面的规定尚不清晰，一切重大投资还是应该按照上述标准进行规划。

第二件事是，现在民众的呼声也会被听到（2011年之前并非如此），且有一定影响力。因此投资者应认真聆听并考虑到民众的需要。

第三件事是，尽管造成问题的真正原因在于政府决策考虑不周、执行不佳，但投资商仍旧会受到批评。新的环境影响评估程序（第123条）允许政府开展战略性环境评估。此类评估超越了对单一企业或设备影响的检测，是对项目或政策更加全面的审查，并为前瞻性的公共

辩论提供机会。截至目前，缅甸还未开展任何一项战略性环境评估。事实上，缅甸政府可能没有足够的资金召集国际专家开展此类评估，但它的发展伙伴或许有这样的能力。此前，以中信集团为首的企业集团联合体中标皎漂经济特区的工业园和深水港项目。包括皎漂特区现存的通往中国的油气管道项目在内的此类经济开发项目都迫切需要在政府指导下开展战略性环境评估。这一过程应该考虑到随着时间推移产生的累积影响，并针对特区投资者建立具体的指导方针。

丹伦江（又名萨尔温江，中国境内称怒江）上计划建设的水电站是开展战略性环境评估的另一个备选项目，也面临着强烈的反对。和湄公河的情况一样，这里水电站的累积影响尤其受到关注。与密松电站相比，这些大坝电站目前处于较早阶段，且位于冲突活跃区，所以较为明智的选择是暂停项目开发，等待和平进程以及丹伦江上各大坝的战略性环境评估都取得更大的进展。目前，国际金融公司正与缅甸政府合作进行能力建设，以提高其推动可持续性水电的能力。双方已经成立了一个面向企业的“开发商小组”，所有对缅甸水电项目有兴趣的企业都会被建议加入这一小组。

透明度依旧是关键

过去，投资商鲜少就项目展开交流，而且项目进度缺少透明度。如今，政治形势已经发生了变化。在缅甸，无论是官方媒体，还是社交媒体，公众都展开了如火如荼的辩论。企业经营必须透明化，否则其他人就会设置议程。各企业应积极响应缅甸政府要求，做到信息公开，确定包括媒体以及缅甸主要民间社会团体在内的地方和国家层面的利益相关方，并与之建立良好关系。问题的答案不在于通过高调公开的慈善捐款赢得支持。归根究底，社区希望自己的权利能够为具有文化敏感性且经营信息透明的公司所尊重，而不是施舍。

法律对透明度和参与度的要求依旧很少。新的环境影响评估过程要求企业做到信息公开以及公众咨询，如果执行得当，这将会成为一个交流和参与的机会，而不是像现在大多数企业做的那样，勾选答案，敷衍了事。但环境影响评价相关的咨询并不能代替与利益相关方和当地社区的接触。即便法律没有要求，企业也必须按照联合国工商业与人权指导原则建立“业

务申诉机制”，为当地社区直接向企业提出问题 and 投诉提供渠道，这一点至关重要。

企业还需采取另一项必不可少的措施以降低自身承担的风险，那就是尽职调查。这里指对他们的商业伙伴开展尽职调查，确定那些有着军方背景、曾经给自己带来附加价值的旧的合作伙伴现在是否会带来麻烦。但这里的尽职调查还意味着对人权影响进行调查，尤其关注土地权益问题。在缅甸，强占土地的行为由来已久，且很难根除。

在缅甸，想要遵守法律是一个挑战。互不一致的新法律会毫无预警地突然出台，且仅有缅甸语版本。缅甸企业责任中心一直在提倡优化立法，并充当着参谋的角色，帮助企业适应新的法律。但归根究底，在这个充满不确定性的过渡阶段，企业如果能够按照国际标准，实现运营透明化，就将做到顺应和满足目前缅甸人民对投资者的期望和要求。

China faces tougher laws in Myanmar

In the wake of the controversial Myitsone dam, Aung San Suu Kyi is demanding more from investors involved in high risk projects

Vicky Bowman

A new government took power in Myanmar on March 31, 2016, led in practice, if not on paper, by Daw Aung San Suu Kyi. Governments and businesses around the world are keenly waiting for indications of the new ministry's priorities and attitudes, none more so than China.

To date, Aung San Suu Kyi has reiterated her desire to see investment from all sources, providing it is responsible. She has also issued clear instructions to her team on corruption, and tightened up rules around the receipt of gifts. A temporary ban on logging has been imposed, and the merger of the mines and environment ministry, as well as subsequent missions to damaged mining sites, including Hpakant's jade mines and gold mines in Upper Myanmar, show that the new government will prioritise reducing damage by mining.

Many of these destructive activities have involved Chinese businesspeople, mostly working cross-border and with a variety of Myanmar armed groups. Although these businesses are by no means representative of China, they are, unfortunately, the lens through which many Myanmar people see Chinese business.

But there is also recognition that China is Myanmar's most important partner, whether political, economic or security. Responsible Chinese investment, in infrastructure, logistics, and manufacturing, is essential for Myanmar's development.

Hanging over the China-Myanmar relationship, and dominating every press conference, is the question of the Myitsone dam, the largest of a seven dam cascade on the Irrawaddy River to be built and financed by China. In 2011, President Thein Sein suspended this project, which had been heavily promoted by his predecessor Senior General Than Shwe, in the face of countrywide protest. This was the first action taken by a new civilian government, which allowed Myanmar's people to believe that perhaps his government would be different from the previous decades of authoritarian rule.

Unfortunately this dumped the problem in Aung San Suu Kyi's lap, five years later. Shortly before her recent visit to China, she announced the creation of a new commission to examine the dam. The remit of the commission is to consider: whether the technology meets international standards and local laws; the positive and negative social and environmental impacts, including on water resources, waterways and the longer term sustainability of the Irrawaddy River, as well as the electricity generation and commercial aspects; and to make proposals for the mutual benefit for Myanmar and the Chinese investor. The commission is due to report by November 11, 2016.

It is difficult to see how a body can conduct such a wide-ranging review in three months. The agenda would be better addressed by experts with a full environmental impact assessment (EIA). An

EIA would probably take several years to complete, be fully disclosed and subject to public debate.

Unfortunately, such a requirement was not in place when the MoU was signed with China Power Investment Corporation (CPI) in 2006.

However, it is now. In 2012, Myanmar established an environment ministry for the first time, and adopted its Environmental Conservation Law. This, in turn, led to the adoption on 29 December 2015 of Environmental Impact Assessment Procedures. This regulation makes explicit the need for international standards, such as those of the International Finance Corporation (IFC) and Asian Development Bank (ADB), to be adhered to in the absence of Myanmar national law on issues such as the rights of indigenous peoples and resettlement.

CPI did conduct an EIA on the Myitsone dam complex in 2008 at the request of the Power Ministry, but it was only disclosed after the 2011 protests. It has been widely criticised for lacking an “alternatives analysis”, proper consideration of downstream impacts, the cumulative impacts of the seven dams, and the near absence of social impact assessment. Undertaken without meaningful baseline data, it would anyway have needed revisiting in the light of upstream changes and water and silt flows due to excessive logging, and climate change, as well as lessons learned from dams elsewhere.

A new EIA for Myitsone would also need to take into account that project proponents are now liable for the costs of all upstream and downstream impacts. Were the project to be taken forward, changes would doubtless be required. Even leaving aside widespread opposition to the dam, its commercial prospects, though never compelling, will be further damaged. The Myitsone Commission may short-circuit the need for a new EIA. In the end, an orderly cancellation according to the contract and negotiation of compensation must be a foregone conclusion in the face of so much uncertainty and opposition.

LESSONS FROM THE DAM

While Myitsone is unique, the lessons it raises are relevant for other investors, particularly those companies – mostly Chinese – who are more inclined to invest in high risk projects such as dams, mines and roads than their Japanese or Western counterparts.

“Hanging over the China-Myanmar relationship, and dominating every press conference, is the question of the Myitsone dam”

The first lesson is that there is now a legal framework for environmental and social protection in Myanmar. Poorly articulated, poorly understood and poorly implemented and enforced, it nonetheless creates legal obligations. Since the framework refers to World Bank/IFC Performance Standards where Myanmar law is lacking, any major investment would be advised to plan to operate to those standards, even if the Myanmar law is currently unclear.

The second is that the public’s voice can now be heard – which was not the case prior to 2011 – and it has power. It needs to be engaged, honestly, and listened to.

The third lesson is that although the real cause of the problem is a poorly considered and executed government decision, the investor company will be blamed. The new EIA procedure (Article 123) allows for government to conduct a Strategic Environmental Assessment (SEA). SEAs allow for a more holistic review of a project or policy, going beyond the impacts of a single company or installation, and can also offer the opportunity for forward-looking public debate. To date, no SEAs have been done in Myanmar. Indeed the Myanmar government would be unlikely to find enough money for professional international experts to conduct an SEA. But Myanmar’s development partners might be able to do so. Economic development – including



A barge laden with timber floats down the Irrawaddy River (Image by thaths)

the existing pipeline to China in the area of the Kyaukphyu Special Economic Zone, where a CITIC led consortium has won the tender for the port and industrial complex – cries out for an SEA led by the government. This process should consider the cumulative impacts over time and establish specific guidelines for investors in the zone.

The proposed dams on the Thanlwin (Salween, or Nu) River are another candidate for strategic environmental assessment. They face strong opposition. The cumulative impacts are of particular concern, as has been seen in the Mekong. Since these dam projects are at an earlier stage than Myitsone, and in areas of active conflict, it would be wiser to

hold back on these until there is more progress both on the peace process, and a strategic environmental assessment of the impacts of multiple dams on the river. The IFC is working with the Myanmar government to build their capacity to promote sustainable hydropower, and have also establish a “developers group” for companies, which any company with an interest in Myanmar hydropower would be advised to join.

TRANSPARENCY REMAINS KEY

What was lacking in the past was communication and transparency by investors. The political landscape has changed. A vibrant public debate now takes place in

Myanmar, in the official media and on social media. Companies need to be transparent, or others will set the agenda. They should proactively respond to and disclose information, and map and engage with stakeholders at local and national level, including the media and critical Myanmar civil society groups. The answer is not to try to buy support with highly publicised charitable donations. In the end, communities want their rights respected, by culturally sensitive and transparent companies, not handouts.

Legal requirements for transparency and engagement remain minimal. The new EIA process requires disclosure and public consultation. It can be a communication and engagement opportunity if done properly, rather than the tick-box exercise which most companies have done. But EIA-related consultation is not a replacement for ongoing contact with stakeholders and local communities. It is also vital – even if not a legal requirement – for companies to establish an “operational grievance mechanism”, an accessible point for communities to raise concerns and complaints direct with the company, in line with the UN Guiding Principles on Business and Human Rights.

Another essential step companies need to take to reduce their risk is due diligence. This means due diligence on their business partners, where old partners with military connections who might once have brought added value now bring trouble. But it also means due diligence on human rights impacts, with a particular focus on land where legacies of land grabs are difficult to disentangle.

Legal compliance in Myanmar is a challenge. New and inconsistent laws emerge suddenly without warning and available only in Burmese. The Myanmar Centre for Responsible Business has been advocating for better law-making and also acts as a sounding board for companies trying to navigate new legislation. But in the end, during this uncertain transition, if a company operates transparently according to international standards it will both achieve compliance and fulfil what the Myanmar people now expect, and demand, of investors.

中国能帮莫桑比克挽救森林吗？

莫桑比克正在进行姗姗来迟的打击腐败和盗伐工作

宁卉

中国是世界上最大的木材市场，进口来源遍布80多个国家。但是，据伦敦NGO环境调查署（EIA）的说法，中国也是世界上最大的盗伐木材进口国。

南部非洲莫桑比克90%的木材都出口到中国，不过环境调查署说其中的一半都是盗伐的。最近对该国的一次访问表明，中国推动了盗伐的泛滥，但也有助于这一问题的解决。

莫桑比克热带森林覆盖率占其国土面积的一半。然而，沿海赞比亚省占地3000平方公里的吉尔国家保护区是该国盗伐最猖獗的地区之一。

那里的红檀（马达加斯加铁木豆）是一种受到保护的珍稀树种，由于其木材的商业需求量很大而濒临灭绝。保护区的护林人乔塞·迪亚斯告诉我，除了这类保护区之外极难找到红檀。

莫桑比克之旅让我亲眼看到了盗伐在该国是如何进行的。刚刚到达的时候，我就看到保护区入口处停着好几辆锈迹斑斑的卡车，上面装满了巨大的红檀原木。这些都是走私者从保护区盗伐的，但被护林人缴获了。

尽管这里栖息着狮子、花豹、大象、野牛等种类繁多的动物，但由于缺乏基础设施，保护区的游客寥寥无几。

但护林人仍要坚守岗位，在广袤的保护区里打击数量众多的走私者。2012年以来，他们总共截获了58卡车和10拖拉机的盗伐木材。迪亚斯说：“还有很多没有抓到。”

在三月的一份报告中，迪亚斯将盗伐行为描述为“有组织犯罪”，因为盗伐者与包括警察、

官员、运输检查站人员、社区领袖乃至保护区职员的人广泛勾结。

采伐者

在去保护区之前，我在省会克利马内会见了该省土地、环境和农村发展部门负责人安东尼奥·奥斯瓦尔多·帕克勒克。

帕克勒克刚履新不久，他声称自己对该地区的林业部门所知无几。但他的部下给我帮了忙，建议我见见该省唯一的华人林场主——豪尔赫·邴（音）。他的两处林场就位于保护区的东南边缘，护林人曾经在他的林场外抓获8辆满载“保护级”红檀的卡车。

邴自从1973年就住在莫桑比克。他在赞比亚省是一个广为人知又颇富争议的商界人物，从事采伐业长达20年，拥有7座木材工厂。他的家族在克利马内市也拥有多处房产和多家便利店。

吉尔保护区的法国技术顾问让-巴蒂斯特·德方塔涅斯说邴是“保护区无人不知”的九大盗伐者之一。安瓦多·纳维阿是穆克克尼地区的一位木材生产商，就在邴的林场附近，他承认自己从保护区走私红檀，说邴是一个“不及时付款”的“坏人”。另一位当地林场主告诉我他是一个“很难对付的家伙”。

生于台湾的邴有些秃头，五十出头，他本人则煞有介事地告诉我，他自己实际上已经对木材产业不再感兴趣。

我们见面的地点是克利马内的一家酒吧，老板是邴的高中同学——一位莫桑比克人。和其他很多在莫桑比克的华侨不同，邴在这个国

家过得很安逸。他说：“我前妻是大陆人，她想让我离开莫桑比克。但我怎么能这样呢？我所有的一切都在莫桑比克。”

谈到木材市场，他承认：“整个产业都烂透了，根本没有合法工作的空间。”

“因为非法在这一行司空见惯，因而保护区一片混乱。村民们，乃至保护区的警卫们全都想卖红檀牟利。”他向我展示了保护区内外红檀的图片，来说明二者质量的差别，并且说：“保护区有最好的木材，村民们非常乐意把它们卖给我们。”

接着他问我：“有谁会拒绝质量最好的原木呢？”

土地部长

莫桑比克土地、环境及农村发展部部长塞尔索·克勒亚说，他从未听说过豪尔赫·邴，但他非常清楚吉尔保护区的情况。

克勒亚说：“2015年年初我们刚上任时，决定对现状进行一次分析。”他聘请世界自然基金会（WWF）莫桑比克办事处和一些当地非政府组织进行一项调查，发现“一半以上的现有特许权都不应该经营”。在调查后，克勒亚对所有新特许权的审批下达了两年的禁令。

克勒亚说：“我们正在‘打扫房子’，为此刚刚制订了一部新《森林法》，今年将提交国会审议。我们还通过了一部新《保护法》。那些参与盗伐的人如果被抓获，将面临15年监禁，而过去他们仅仅被罚款而已。”他还从2016年1月开始禁止红檀的所有采伐。

克勒亚又说，莫桑比克森林破坏的挑战主要并不是来自采伐，而是农业和“当地社区的木炭生产”。他说：“我们需要一个可持续的森林，需要一个市场。”

对于莫桑比克的环保活动者来说，这些措施不仅作用有限，而且也不够及时。新规则在中国的需求疲软之后才出台。随着中国经济放缓和重拳反腐，买家对于那些用热带硬木制作的豪华高调家具的购买愿望直线下降。

但另一方面，克勒亚指出中国木材需求减少降低了这些更严格法律的推行难度。他说，木材价格下降“减轻了压力”。

这并非莫桑比克政府第一次对采伐进行治理。早在1999年，政府就将包括红檀在内的8个树种列为头等木材，禁止以原木形式出口。

但这项不完全的出口禁令并未奏效。正如可持续贸易专家安妮·特勒根所说的，这项禁令“并未如期带来价值创造、就业增加和可持续森林管理等方面的收益”。

由于中国实际上仍然是该国唯一的木材市场，国内产业几乎没有操纵空间。就地加工的木材寥寥无几，莫桑比克大多数热带硬木都以原木的形式销往中国。

腐败也大肆蔓延。邴描述了整个产业链上上至高级官员、下至伐木工人无处不在的受贿现象。环境调查署在一份报告中总结说：“莫桑比克是森林管理病入膏肓的一个典型例证，是中国的大量木材需求加上执法不力和腐败猖獗共同作用的结果。”

“很多中国企业家在欧美投资，都不会违反法律，那为什么会有这么多中国企业在非洲做非法生意呢？”

但克勒亚仍然很有信心。他在马普托的办公室对我说：“在我们对这个行业进行整顿之后，来自中国、欧洲和美国的投资者们将看到一个遵纪守法的市场和井然有序的体系。但要在莫桑比克建立这样一个木材市场，至少需要花上10年时间。”

工厂管理者

去年底，中部的索法拉省省长玛丽亚·泰波突然视察了省会贝拉的3家华人木材厂。

泰波从当地劳动部门提供的违反劳动法企业名单里随机抽取了这3家企业：恒新（音）、明凡善（音）和迪迪·马德拉斯。

该省劳动部门负责人杰米·齐卡米赛说他们在省长视察前就对这些企业下达了停业通知，“但他们根本不听”。齐卡米赛拿恒新公司举例子说：“我们很难和公司说上话，他们经常雇用一些当地的中间人来应付我们。”

省长的视察取得了预期的效果。泰波的停业命令得到了企业的遵守。

我成功地接触到了恒新木材厂，此时该厂的停业已经解除好几个月了。我和工厂林经理



吉尔保护区内一辆卡车正在运送非法原木被守林员发现。图片来源：Estacio Valoi

见了面，但由于老板回中国了，他拒绝提供自己的全名。

林经理说他们的工厂曾经是当地一家很大的工厂，雇佣了约100位当地工人，大多数人拿的都是官方规定的最低月薪——3298美提卡（67美元）。他说：“省长的视察只是媒体的噱头，我们的情况和其他厂并无区别。”

泰波省长所说的违反劳动法行为包括缺少用工合同、制服、更衣室甚至厕所。

但令人吃惊的是，林经理和他的中国同事口中的当地工人“懒惰”、不负责任，总是喝醉。用他的话说：“他们和中国工人截然不同。”

但是，当我的接头人——一位总是背着相机的莫桑比克调查记者知道了这件事，采访就变味儿了。

我们和恒新公司的莫桑比克律师通了电话，他建议我们只能和林经理挑选安排的少数工人谈话。

但采访结束的时候，工厂门口有一大群工人在等着我们。他们争先恐后地告诉我们无法

请假，就连家人的葬礼也不行。他们有病有伤时也被迫工作，甚至因为投诉而遭到殴打。

解决办法？

克勒亚部长说木材产业问题的解决之道同样来自中国。他说：“只要我们完成了产业整顿，就会有更可靠的中国企业决定来这里投资。”

郑飞（音）可能就是这样一个例子。他与世界自然基金会中国办事处合作，计划在莫桑比克北部的德尔加杜角省建立一座私营的“中莫森林资源生态区”。

郑飞1998年来到莫桑比克，在德尔加杜角省省会彭巴拥有一家名为飞尚（音）的木材公司。他对该国木材产业及其问题了如指掌。

郑飞说：“莫桑比克人对中国木材公司的抱怨并不是毫无原因的，我们的做法没有给当地人带来任何实际好处。”

据郑飞说，莫桑比克政府所要求的粗加工木材不受中国家具制造商的青睐。“这也正是走

私原木变得如此泛滥的原因。”他的雄心是让整个价值链回到莫桑比克。

他说：“廉价劳动力和自然资源已经摆在那里，中国的制造商只要进来就行，我的工业区将成为他们的最佳选择。”

就在我和郑飞会面的两天之前，他的总经理周明（音）把我带到彭巴以北300公里，位于莫辛布瓦-达普拉亚的生态区。

这块土地的面积有100平方公里，大部分仍然未经使用。周明解释说，他们在当地政府的帮助下，从村民手中购得这些土地，并给予了他们补偿。

这里只有一家锯木厂和晾木厂，但并没有运作。当地工人很少，两位中国工人照料着一片茂盛的菜地，同时做着一顿索然无味的午饭，用的肉来自濒危物种穿山甲。

周明年近40，葡萄牙语非常流利。他看上去满足而安逸，娶了一位当地的印度裔妻子。他说：“在这里不可能娶到中国太太，姑娘们不喜欢非洲。”

两位新来的中国工人却没有那么适应。就在几周前，有人弄坏了工厂周围的铁丝栅栏，偷走了一些木板。由于害怕遭到村民们的抢劫，他们不敢单独外出。

按照郑飞雄心勃勃的计划，到2020年生态区及其相关服务设施将扩展到300英亩，投资2亿美元，创造1.2万个工作机会，为家具业加工木材，并尽可能地进行废物利用。

王磊（音）是世界自然基金会中国办事处的工作人员，作为鼓励中国企业家在非洲遵守法律项目的一部分，他还为郑飞的项目提供技术支持。他对这一项目满怀希望，但对我说主要挑战在于要靠私人投资。这“意味着如果投资无法到位，项目的未来就无法预测了”。

然而，谈到非洲的环境问题，王磊尖锐地质问我：“在当地治理环境没有任何改变的情况下，我们能改变企业的行为，确保他们遵纪守法吗？”

王磊说：“很多中国企业家在欧美投资，都不会违反法律，那为什么会有这么多中国企业在非洲做非法生意呢？”

Can China help Mozambique fight deforestation?

The southern African country is belatedly cracking down on corruption and illegal deforestation

Ning Hui

China is the world's largest timber market and sources wood from more than 80 countries. But, according to the Environmental Investigation Agency (EIA), a London-based NGO, it is also the world's largest importer of stolen wood.

On a recent trip to Mozambique, in southern Africa – where China consumes more than 90% of the country's timber, up to half of it logged illegally, according to the EIA – it became clear that China is being seen not only driving illegal deforestation, but also helping with its potential solutions.

More than half of Mozambique is covered by tropical forests, but the almost 3,000-square kilometre Gilé National Reserve, in coastal Zambezia Province, has one of the most pervasive illegal logging problems in the country.

There, pau ferro (*Libidibia ferrea*), a protected exotic tree, is at risk of extinction because of high commercial demand for its wood. Jose Dias, the reserve's warden, told me it is extremely rare to find pau ferro outside such protected areas.

A trip to the reserve let me see first-hand how illegal logging works in Mozambique. On arrival, I saw several rusty trucks parked at the entrance, loaded with huge pau ferro logs. These had been seized by rangers, after smugglers had unsuccessfully tried to steal them from the reserve.

Despite being a habitat for wildlife, including lions, leopards, elephants, buffaloes and more, the reserve attracts few tourists due to a lack of infrastructure.

But rangers have their work cut out trying to counter the many smugglers across the vast reserve. Since 2012, they have stopped a total of 58 trucks and 10 tractors of illegal wood. "Many more are not caught," said Dias.

In a report from March, Dias described this illegal logging as "organised crime", involving collusion with police, officials, transport checkpoints, community leaders and sometimes even staff at the reserve.

THE LOGGER

Before travelling to the reserve, I met in the provincial capital, Quelimane, with Zambezia's head of land, environment and rural development, Antonio Osvaldo Paqueleque.

A newcomer on the job, he claimed to know little about the area's timber sector. But his department were more helpful, suggesting I speak to Jorge Bing: the province's only Chinese owner of forestry concessions, two of which border the southeastern edge of the reserve. Rangers had once captured eight trucks packed with pau ferro "of reserve quality" leaving Bing's concession.

Bing has lived in Mozambique since 1973. A well-known and controversial figure in the province's business world, he has been involved in logging for almost two decades and owns seven timber factories. His family also owns houses and convenience stores in the city of Quelimane.

Jean-Baptiste Deffontaines, a French technical advisor from the reserve, described Bing as one of nine illegal loggers "known around the reserve."

Annwaudo Naweia, a timber producer from Mucucune area, near Bing's concession – who admitted smuggling pau ferro from the reserve -- described him as “bad person” who “doesn't pay in time.” Another local concession owner told me he was a “tough man to deal with”.

But Bing himself, a bald man in his early fifties who was born in Taiwan, told me matter-of-factly that he wasn't interested in the timber business anymore.

We met in a local bar in Quelimane run by one of his high-school classmates, a local Mozambican. Unlike many other Chinese in Mozambique, Bing feels very settled in the country. “My ex-wife, from Mainland China, wanted me to leave Mozambique,” said Bing. “But how could I? Everything I own is in Mozambique.”

As for the timber market, “the entire sector is corrupt,” he acknowledged, “and there's no space for legal work.”

“Because illegal is the norm, the reserve is in chaos. Villagers, and even the guards in the reserve, all want to sell pau ferro.” He showed me pictures of pau ferro from within the reserve and from outside the reserve, to show the difference in quality. “The reserve has the best woods and villagers are more than happy to bring them to us.”

“Why would anyone say no to logs of the best quality?” He asked me.

THE MINISTER

Celso Correia, Mozambique's minister of Land, environment and rural development, said he had never heard of Jorge Bing, but he knew the situation in Gilé well.

“In early 2015 when we first came to office, we decided to conduct an analysis of the current situation,” said Correia. He had WWF Mozambique and some local NGOs carry out a survey, which found “more than 50% of current concessions shouldn't be operating.” Following the survey, Correia imposed a two-year ban on all new concession licenses.

“We are cleaning the house now,” said Correia. “We just proofed a new Forestry Law which is going to the Parliament this year. We passed a new

Conservation Law too. For people involved in illegal logging – if they're caught, they'll go to jail for 15 years. Before, people used to just pay a fine.” He also banned all logging of pau ferro from January 2016.

The challenges of deforestation in the country weren't mainly from logging but from agriculture, and “charcoal production by local communities,” said Correia. “We need to have a forest that's sustainable and we need to have a market,” he added.

For the country's environmentalists, this was too little, too late. The new rules came in just as Chinese demand softened, as the economy slowed and the anti-corruption drive dissuaded Chinese buyers from investing in ornate, showy furniture pieces made from tropical hardwood.

Still, Correia argued that weaker Chinese demand for timber had made it easier to push through these tougher laws. With the wood price down, he said, “there's less pressure”.

This was not the first time the Mozambican government had tried to act on logging. As early as 1999, the government had listed eight species, including pau ferro, as first-class hardwoods banned from export in log form.

*“Because illegal is the norm,
the reserve is in chaos.
Villagers, and even the
guards in the reserve,
all want to sell pau ferro”*

But the partial export ban was ineffective. As the sustainable trade specialist Anne Terheggen put it, the ban “did not produce the anticipated benefits of value creation, additional employment and sustainable forest management.”

As China effectively remains the country's sole market for timber, the domestic industry has little room to manoeuvre. There is little processing locally and much of Mozambique's tropical hardwood is exported to Chinese buyers as logs.

Corruption is widespread. Bing described payments being made all the way up the chain, from local loggers to high-level officials. EIA concluded in a report: “Mozambique provides a stark illustration of the chronic failure of forest management which ensues when China’s insatiable demand for logs converges with weak law enforcement and corruption.”

Still, Correia was confident. “After we organise the industry,” he told me in his Maputo office, “investors from China, Europe and America will see then we have a regulated market and that we have good system. But to build the wood industry in Mozambique, it will take at least up to 10 years.”

THE FACTORY MANAGER

Late last year in Beira, the capital city of the central Sofala Province, Governor Maria Taipo visited three Chinese timber factories unannounced.

From a list of labour violators compiled by the local labour department, Taipo had identified three factory owners she wanted to take by surprise: Heng Xin, Ming Fan Shan and Didi Madeiras.

Jaime Chicamisse, head of the provincial labour department, said they had already issued suspension notices prior the governor’s visits, “but they did not comply.” Regarding Heng Xin, Chicamisse told me: “It was difficult for us to talk to the company; they often hire some local middleman to handle us.”

The Governor’s visit had the desired effect. Taipo’s order for suspension was complied with.

I managed to get access to Heng Xin’s factory, a few months after its suspension had been lifted. There I met Lin, the factory manager, who declined to give me his full name while the owner was away in China.

Lin said it was one of the biggest factories in the region, employing around 100 local workers, mostly paid the official minimum wage of MT3,298 (US\$67 / 447 yuan) a month. “The governor’s visit was just a stunt for the media,” he said. “Our company’s situation was not different from others.”

The labour violations described by Taipo included a lack of contracts, uniforms, changing rooms and even toilets at the factory.

Surprisingly, Lin and his Chinese colleagues spoke to me freely, painting a prejudiced picture of the local workers as “lazy”, feckless and drunk. “They are different from Chinese workers,” he said.

But when it transpired my fixer, a Mozambican investigative journalist, was carrying a camera, the interview turned sour.

We were put on the phone with the company’s Mozambican lawyer, who suggested we could only talk to a few workers picked and prepared by Lin.

Still, at the end of the day a large group of workers were waiting for us outside the factory gates. They clamoured to tell us that they couldn’t take days off, even for family funerals; that they were forced to work when sick or injured; and even that workers had been beaten for complaining.

“It makes sense that Mozambican people blame Chinese timber companies as we did not bring any real benefits to the locals”

THE SOLUTION

Correia, the minister, said the solution to the sector’s problems would also come from China. “As we organise the sector,” he said, “more serious Chinese companies will decide to come”.

Zheng Fei may represent one such example. In cooperation with WWF China, Zheng plans to build a privately owned “Sino-Mozambique Forest Resource Ecological Zone” in the northern province of Cabo Delgado.

Zheng, who arrived in Mozambique in 1998, owns a timber company called Feishang, in Pemba, the capital city of Cabo Delgado. He is familiar with the country’s timber sector and its problems.

“It makes sense that Mozambican people blame Chinese timber companies,” Zheng said, “as we did not bring any real benefits to the locals.”



Local authority measures logs. Image by Jean-Baptiste Deffontaines

According to Zheng, the roughly processed timber required by the Mozambican government was not favoured by Chinese furniture manufacturers. “That’s why smuggling logs became popular.” His ambition is therefore to relocate the entire value chain to Mozambique.

“Cheap labour and natural resources are already here,” Zheng said. “Manufacturers in China just need to step in and my industrial zone is going to be their choice.”

Two days before I met Zheng, his general manager Zhou Ming took me to the Ecological Zone, in Mocimboa Da Praia, 300 kilometres north of Pemba.

The 100 square kilometres of land – which Zhou explained had been acquired from villagers, who would be compensated, with the support of the local government – were still largely unused.

There was a single sawmill and wood-drying plant, but they weren’t in operation. There were a few local workers. Two Chinese workers tended a flourishing vegetable garden while cooking an unappetising lunch made from the meat of a pangolin, an endangered species.

Zhou, in his late 30s, is fluent in Portuguese. He seemed content and settled and had married a local woman of Indian origin. “It’s not possible to bring a wife here from China,” he said. “Girls don’t like Africa.”

The two newly arrived Chinese workers were less situated. A few weeks earlier, someone had cut the wire fence around the factory and stolen a few planks. Scared that local villagers might rob them, they didn’t go out alone.

According to Zheng’s ambitious plan, the Ecological Zone and related service will expand to 300 hectares by 2020, with an investment of US\$200 million (1.3 billion yuan), creating 12,000 job opportunities up and down the value chain, processing wood for furniture and making as much use as possible of any waste.

Wang Lei, who works for WWF China – and provides technical support, as part of a programme encouraging Chinese entrepreneurs to act lawfully in Africa – was hopeful about the project, but told me the major challenge was that the plan relies on private investment. This “means if the investment is not realised, then the future of the project will be unpredictable.”

Still, regarding environmental problems in Africa, Wang asked pointedly: “Can we change these companies and make sure they act according to law without changing the local governing environment?”

“Many Chinese entrepreneurs invest in Europe and the United States” without breaking the law, said Wang. “Why are so many Chinese conducting illegal business here in Africa?”

求解中国远洋渔业的“输血依赖症”

中国是否应该继续为远洋渔业提供燃油补贴？该问题凸显了补贴政策与环保目标之间的紧张关系

冯灏

8月8日，环保组织绿色和平发布报告称，中国中央政府对于远洋渔业的燃油补贴以十亿计，而且呈不断增长的态势。快速增长的燃油补贴在很大程度上刺激了近年远洋渔船的建造热潮，但补贴支撑起的远洋渔业并不能带来经济效益。

而作为全球最大的水产品生产国、消费国和出口国，中国的渔业资源已显著衰竭。

国际关注

去年12月，WTO第十次部长会议曾集中讨论备受关注的“渔业补贴协议”，其中60%的补贴被认为会直接或间接造成过度捕捞以及非法捕捞。据全球海洋委员会估计，自1950年全球渔业资源已经衰竭了63%。

事实上，中国对于远洋渔业的补贴存在多种形式。而燃油补贴是其中最重要且金额最大的。光大证券的研报显示，燃油补贴是远洋渔业行业的业绩稳定器，约占到整个营业外收入的80%。

在分析中水集团远洋股份有限公司和上海开创国际海洋资源股份有限公司两大央企财务表现的基础上，绿色和平发现，如果去掉政府补贴，两家公司在近年的运营中将毫无利润可言。

“输血依赖症”

大型国企是如此，民企也不例外。“近年来远洋渔业的生意并不好做”，船东郑老板从事远洋捕捞已近30年，他告诉中外对话，“大家都知

道的，渔业资源整体在衰退；而且远洋里的渔船越来越多了”。

“捕获情况不好的时候，补贴就占营收的大块儿了，大的船每年能得到燃油补贴400-500万，偏小的船也能补贴一百多万。”

郑老板来自浙江舟山，拥有中国最大的渔场舟山，现在舟山计划建设国家远洋渔业基地，打造一支现代化的远洋渔业船队，并有到2020年全市远洋渔业总产量达到60万吨的目标。

绿色和平报告作者李硕表示，从经济性的角度来看，政府补贴并没有起到扶植企业做强的作用，拿纳税人的钱“人工输血”到一个不挣钱的行业，这不是一笔划算的帐；从环境效益来看，远洋渔船的数量远远超过了环境的承载力。换句话说，补贴使得整个行业陷入了效益越低、越需要补贴，而越补贴、效益越低的死循环。

保护弱势群体

由于油价调整对远洋渔业可能造成的影响，2008年国务院在下发有关成品油价格和税费改革的通知时，专门提到，该行业因油价调整而增加的成本由中央财政给予补贴。在这项政策中，远洋渔业企业与种粮农民和低收入群体一起，被认为需要获得中央政府的照顾与扶持。

山东大学威海分校海洋学院教授王亚民告诉中外对话，针对渔业的燃油补贴最初是在费改税的大背景下出台的。当时养路费不再单独征收，而是计算后加入油价。而渔民用油却



中国作为全球最大的水产品生产国、消费国和出口国，其渔业资源已显著衰竭

不上道路，相当于每个渔船多负担了上万元油品涨价的费用。为了减轻渔民负担，财政部规定，通过计算渔船的平均用油量，得出总体多负担的渔民养路费，一体返还。

但是，美国智库国家亚洲研究局的渔业专家塔比瑟·格蕾丝·马洛里在整体分析渔业补贴的基础上，认为中国的燃油补贴是以增加渔业产能为政策目标的，与同时期力图保护海洋环境的政策相冲突。定量分析得出的结论是，95%的渔业补贴会威胁鱼类资源的可持续性，从长期来看，还会削弱渔业整体的经济可行性。

补贴改革

值得注意的是，渔业燃油补贴也是化石能源补贴的一部分。

随着《巴黎协定》的达成，国际社会应对温室气体排放的进程驶入快车道。5月的七国集团峰会和6月的二十国集团能源部长会议上，“淘汰无效的化石能源补贴”都是热议的话题。

绿色和平的李硕强调，针对远洋渔业的燃油补贴也应该放在这个大的框架下去考量。“燃油补贴是对化石能源的补贴，是关乎环境保护、气候变化的议题”，李硕建议，在考虑到弱势群体合理需求的基础上，逐渐地替代渔业燃油补贴。

随着全球海洋环境日益退化，国际社会对海洋生态系统保护愈加重视。对外经济贸易大

学法学院教授边永民表示，现在的问题不是要不要改变，而是如何改变和什么时候实施的问题。

积极的信号

中国政府也在释放积极的政策信号。2015年，财政部、农业部发布关于调整补贴政策的通知，指出自2006年以来的渔业油价补贴政策覆盖面广、规模大、持续时间长，扭曲了价格信号，与渔民“减船转产”的政策不相适应。

“减船转产”政策是中国农业部针对渔业资源枯竭、行业产能过剩提出的。近年来，远洋渔业正在重蹈陆上传统产业的覆辙，暴露出诸如钢铁、水泥、煤炭等产业的通病。以降低捕捞强度、鼓励渔民转岗为政策目标，新的规定提出补贴支出与船只用油量脱钩，希望提高渔业用油价格，利用价格机制调节渔船数量，把省下来的补贴资金用于帮助渔民转产、发展休闲渔业、可持续渔业等方面。

按照最新的政策目标，到2020年，全国海洋捕捞总产量减幅比例应不低于20%。“减船、转产、逐步取消柴油补贴都是渔业可持续发展的配套政策”，中国水产流通与加工协会首席营销顾问樊旭兵说，“这是一个很复杂的问题，必须把方方面面的政策配套到位”。

China's deep sea fishing industry relies on fuel subsidies

China's distant water fleets would be bankrupt without top ups to pay for diesel

Feng Hao

China's central government policy of subsidising diesel fuel for its fishing fleet has created a damaging industry that is growing fast despite being commercially unsustainable, according to environmental campaign group Greenpeace.

Describing China's distant water fishing industry (DWF) as "out of control", Greenpeace said in an 8 August report that the country's fleet of 2,460 vessels is likely to keep on expanding as long as "China continues to pour in misguided subsidies," of which fuel subsidies are "by far the most important."

China is the world's largest producer of wild catch, and of seafood, according to fisheries and international relations expert Tabitha Grace Mallory of Seattle-based think tank, The National Bureau of Asian Research.

INTERNATIONAL ATTENTION

Greenpeace's report follows a World Trade Organisation ministerial-level conference last December seeking frameworks to assess the harm that fishing fleet subsidies are causing to shrinking fish stocks – which the Global Ocean Commission estimates have declined 63% since 1950.

China is far from being the only nation to subsidise distant water fleets. But it has the world's largest fleet, and one that is growing rapidly.

Chinese fishing fleets receive a variety of subsidies but the central government's fuel subsidy is the most significant. The report quotes research by Everbright Securities that found fuel subsidies make up on

average 80% of non-operational income for China's distant water fishing fleets (DWF).

Without it, there would be no profits at the two major state-owned fisheries firms analysed by Everbright, CNFC China Overseas Fisheries and Shanghai Kaichuan Marine International.

RELIANT ON SUBSIDY

The same is true for private companies. "When the catch isn't great, the subsidies make up the major part of your income," Mr Zheng, a boat owner and deep sea fisherman for 30 years, told *chinadialogue*. A large vessel could get 4 to 5 million yuan (US\$600,000 to US\$750,000) in subsidies, while smaller vessels might receive 1 million yuan, he said.

Zheng fishes from Zhoushan in Zhejiang province, southeastern China. The country's largest fishery is offshore, and the port is also a national centre for the distant sea fishing fleet, a term for boats that fish the deep sea and in other countries' waters.

Li Shuo, author of the Greenpeace report, said subsidies are not strengthening the industry and using taxpayer's money to prop up unprofitable businesses makes no sense.

Furthermore, the number of deep sea fishing vessels is far above what the environment can cope with. The industry is caught up in a cycle of low profitability leading to high subsidies, which again leads to lower profitability, he said.

Subsidies cover the extra cost of diesel when it rises above 2,870 yuan per tonne (US\$432), and

the total cost if it rises above 5,070 yuan per tonne (US\$763), Greenpeace says.

SPIRALLING COSTS

Total payments have risen almost 10 times from 281 million yuan (US\$42.2 million) at the outset in 2006 to a huge 2.68 billion yuan in 2011, when official data stopped being published, says Greenpeace. Mallory has estimated the cost at US\$6.5 billion in 2013, in recent research published in the journal *Marine Policy*.

The giddy increases are due to the growing number of boats, up more than 25% in two years from 2012 to 2014. Two thirds of new launches were in Fujian and Shandong provinces in eastern China, where local government subsidies create extra incentives, and more expansion is planned. “Everyone knows fisheries are shrinking overall, yet the number of deep sea fishing vessels is increasing,” said fisherman Zheng.

Mid-summer is the closed season offshore of Zhejiang, yet the harbour is busy with boats landing catches from the Pacific, Atlantic and Indian oceans.

WORKER PROTECTION

The fishing industry’s fuel subsidy originated to protect vulnerable groups during fuel price reforms, Professor Wang Yamin of the Marine College on Shandong University’s Weihai campus, told *chinadialogue*. Highway maintenance fees were folded into fuel prices, so fishing vessels got a subsidy to counterbalance the extra burden.

The policy was confirmed in a State Council 2008 ruling protecting fishermen, grain farmers and those on low incomes.

However, Mallory’s analysis found China’s fuel subsidies aims to increase fishing industry capacity, which conflicts with its policy of protecting the marine environment. A quantitative analysis found that 95% of fishery subsidies were harmful to sustainability and would in the long term reduce the economic viability of the fishing industry as a whole.

CARBON SUBSIDY

Greenpeace’s Li argues that fishing fleets’ diesel payments are a form of fossil fuel subsidies.

The December 2015 Paris Agreement on climate change included national pledges to curb greenhouse gas emissions, and “elimination of inefficient fossil fuel subsidies” was a hot topic at the G7 summit in May 2016 and G20 energy ministers meeting in June.

“Fuel subsidies are a subsidy of fossil fuels, and that means it’s an environmental protection and climate change issue,” says Li, suggesting subsidies should be replaced gradually, while taking into account the reasonable needs of vulnerable groups.

With ocean ecosystems declining, international pressure is growing to take their protection more seriously. Bian Yongmin, a professor at the School of Law at the University of International Business and Economics in Beijing, has said it is not a question of whether changes are needed – it’s a question of what changes and when.

SIGNS OF CHANGE

China’s government is also sending supportive signals. In 2015 the Ministry of Finance and Ministry of Agriculture issued a notice on changing policy on subsidies, noting that since 2006 fisheries diesel subsidies have distorted pricing and conflict with a policy of reducing boat numbers and shifting fishermen into other sectors.

New regulations will decouple payments from the amount of fuel used, and savings will help workers find other jobs and the development of sport and sustainable fishing, the ministry says.

The latest policy target is to see at least a 20% drop in ocean catches by 2020. “Reducing the number of vessels, moving workers into other sectors, and gradually doing away with diesel subsidies are all complementary to sustainable development of the fishing industry” said Fan Xubing, chief marketing consultant for the China Aquatic Products Processing and Marketing Alliance. “It’s a very complex issue, and all the different policies need to be in line with each other.”

非洲正影响着中国石油企业

苏丹和南苏丹不断升级的冲突正促使中印两国的石油企业担负更大的责任

贝丝·沃尔克

20世纪90年代，苏丹内战持续蔓延，美国对喀土穆（苏丹首都）实施了制裁，这给中国和印度的石油企业制造了商机。在之后的十几年中，这些国家的石油企业在苏丹迅速崛起。但是，随着苏丹政权分裂和南苏丹的独立，这一非洲第一大国政治愈发动荡，流血事件频发。为保护本国利益，中印两国均积极开展了外交斡旋以试图结束苏丹冲突。

卢克·佩蒂在他的全新著作《新的原油之王》中向我们详细介绍了中印两国的石油大亨。他曾花费7年时间辗转于苏丹、北京和德里，探访国有石油企业总部，做了大量研究工作。

贝丝·沃尔克（后文简称“沃”）：目前人们都在激烈地讨论中印两国对非洲的影响，而您却认为一直以来人们忽视了非洲对中印两国的影响，您能否详细解释一下？

卢克：印度和中国的大型跨国企业将非洲作为进入全球市场的跳板，且作为两国最大的海外投资地。苏丹是中国最大国有石油公司中国石油天然气集团公司选择的首个大规模海外投资国。苏丹和南苏丹就如同中石油试水其国际竞争力的试验田。非洲着实一直扮演着中印大型国有企业的练习场角色。

贝丝：是什么决定着这些企业的一举一动呢？

卢克：从上世纪90年代末到5年前的十多年间，苏丹和南苏丹一直都是中印两国国有石油企业海外投资的宝地。但是苏丹和南苏丹国内的不安因素和政局动荡给中石油带来了持久的影响。

在苏丹和南苏丹，中印企业几乎都曾遭遇过绑架、暴力和盗窃事件。为有效应对这些

不安全因素，它们基于自身经验，采取刚柔并济的策略，对安保政策做出了适当的改进。它们为国外子公司安装了预警系统，同时对员工进行安全培训，提高员工应对绑架的能力。更重要的是，它们开始采取迂回策略，通过参与海外政治提高安全性。近年来，它们不再仅仅依靠东道国政府，而是与当地社区、媒体和民间社会展开合作，积极参加国际非政府组织和苏丹民间团体主办的企业社会责任研讨会并与国际风险业务顾问公司交流。这些都说明这个向来以封闭著称的中国国企确实已经开放了不少。

中印企业在苏丹的遭遇也迫使双方不得不重新思考其整体投资策略。从20世纪90年代中印石油企业首次走出国门进行海外投资开始，它们就将足迹深入西方石油公司不愿涉足的国家，例如苏丹、缅甸和伊朗等国，希望藉此在国际石油市场扎下根来。而十年后这些企业发现，由于对这些动荡地区投资过多，一旦该地区紧张局势升级（例如苏丹和南苏丹爆发的冲突和内战），企业就会面临停产风险，最终会导致石油产量和收入的大幅度下跌。所以现在他们正在积极推进多元化投资战略，努力开拓美国和加拿大市场，来平衡自己的国际投资组合。

贝丝：中国企业的投资行为有没有受到国内外公众压力的影响？还是主要受经济因素驱动？

卢克：这两方面的影响都有。中石油对苏丹的投资遭到了包括美国在内的国际社会的抨击，从而导致中石油很难打开美国市场。出于经济因素的考虑，它不得不考虑改变自己的投资策略。例如，美国的页岩气和天然气产业蓬

勃发展，中国企业也想分一杯羹。但是由于在苏丹的投资引起了美国公众的强烈不满，它们很难在美国进行大规模的投资。

我认为，中国国内正在形成一种良好的动态机制。这是因为随着中国采取各种措施改善空气质量，提高环境标准，中国企业正面临巨大的环保压力。这可能会对企业未来的投资行为（包括海外投资）产生持久的影响。如果中国政府和习近平主席向国有石油企业施压，海外企业也会受到一定的影响。

贝丝：中国政府针对海外企业制定的自愿性指导方针产生了什么影响？

卢克：我认为对于中国外交部和商务部来说，当务之急是协调好在非洲那些只顾追逐自身狭隘利益的中国投资者之间的关系。目前，中国政府正加强与企业之间的对话，试图通过制定企业社会责任政策来对企业的投资行为进行指导。但是中国政府和这些国有企业之间的协调度还并不高。这些石油企业在中国国内实力非常雄厚。中石油就是过去的石油部，而中石化则是过去的化工部。直到现在它们仍在政府和党内扮演着重要角色。

贝丝：苏丹和南苏丹的石油产业对当地居民的生活和环境产生了怎样的影响？中国在其中扮演着什么角色？

卢克：随着苏丹石油产业的发展，苏丹的环境开始不断恶化，但若把矛头全部指向中国则未免有失公允。我们经常指责中国企业，因为无论是在国内还是国外，它们的环保意识都非常的差。但不得不提的是，苏丹和南苏丹对本国石油产业的治理并不完善。这两个国家都将石油产业的发展列于环境保护之上，因为任何环境或社会措施都有可能减少石油的产量和收入。而在加拿大等监管比较严格的国家，大部分中国企业都能遵守当地的法律法规。

由于缺少法律的监管，苏丹的石油产业已经对当地生计造成了不同程度的破坏。首先，企业在进行石油地震勘探测量的过程中，通常会占用大量土地，有时甚至会破坏当地社区的农田。此外它们还修建公路，阻断了当地的河流，给农田灌溉带来了不便。由于缺乏投诉机制，当地居民无法就此投诉中国企业。

石油生产过程中的废水排放对环境的不利影响最大。它会造成牲畜死亡、居民生病，从而导致居民对当地企业强烈不满（当地主要是中国企业）。这些企业已经意识到了这一问

题，并试图采取措施保护环境。但是对此，人们并不报太大希望，因为连西方最先进的石油企业都可能无法做到自我监管。苏丹政府需要制定明确的法律法规对中国企业进行监管，一旦它们违反相关规定便应遭到相应处罚。

贝丝：中印两国企业在投资策略上主要有哪些区别？

卢克：与印度相比，中石油和其他中国国有石油企业的国际投资策略更加全面。中石油在进行海外投资时，通常能够带动整个价值链的发展，如在国外成立建筑公司和餐饮公司；而印度企业则与大部分西方企业一样，仅仅专注于石油勘探领域。由于中国石油企业在非洲投资时能够为非洲国家提供很多其他服务，包括修建公路、提供建筑设施、提供就业机会等，所以在基础设施薄弱的国家，中国的石油企业优势更强。

贝丝：您在调研过程中面临的最大挑战是什么？

卢克：一开始要想接触到中国国有石油企业的员工非常困难。他们在面对研究人员和记者时并不能够敞开心扉，可能是因为他们在与外界打交道方面并没有太多经验的缘故。为了采访中石油的员工，三年的时间里，我辗转于苏丹和北京之间，但7年的研究成果还是相当显著。历经7年，中石油员工终于能够向我及其他研究人员和记者敞开心扉。他们所面临的安全难题以及来自公众的压力使他们终于认识到必须要敞开心扉、发表自己的观点。

贝丝：正在进行的反腐行动对石油产业有何影响？

卢克：反腐行动对中石油的影响还是很大的。目前有几十位中石油的高层管理人员已经被中纪委拘押。由于被拘人数太多，中石油不得不储备后备人员，来接替被查人员的职位。此外，中石油的海外投资活动也停滞下来。中国石油天然气股份有限公司本应于今年早些时候达成亚伯达油砂产业的投资意向，但在中石油董事长被拘押后，这一投资项目最终还是被搁置下来。

但从长远来看，中石油可能会变得更强大、更高效，同时与中国政府的关系也会更加密切。一直以来，中石油以特立独行著称，对国内外法规往往不屑一顾。但现在，这种状况正在发生改变。

How Africa is changing Chinese oil companies

Conflict in Sudan and South Sudan has forced Chinese and Indian oil companies to become more responsible global citizens

Beth Walker

Sudan's civil war and American sanctions against Khartoum in the 1990s opened the oilfields to China and India. For more than a decade, Sudan fuelled the rise of these national oil companies. But the political turmoil and bloodshed over the division of Africa's largest country, and the birth of South Sudan, sent Chinese and Indian diplomats scrambling to protect their interests and bring an end to the conflict.

In his new book, *The New Kings of Crude*, Luke Patey describes the oil barons of India and China based on seven years research travelling between the Sudans and Beijing and Delhi where the state-owned oil companies have their headquarters.

He talked to Beth Walker about how Chinese oil companies have been forced to change their approach.

Beth Walker: Amid the intense debate about the impact of China and India on Africa, you argue the influence of Africa on China and India has been neglected. What do you mean?

Luke Patey: Indian and Chinese large multinational corporations have used Africa as a launching pad into the global market place and to make the first big foreign investments overseas. Sudan was the first place the Chinese National Petroleum Corporation (CNPC) – China's largest national oil company – made a large scale overseas investment. Sudan and South Sudan acted as a vehicle for the company to test its international competitiveness. So Africa has really been a training ground for large state owned Chinese and Indian corporations.

BW: How has this shaped the way these companies behave?

LP: Sudan and South Sudan was the crown jewel for Chinese and Indian national oil industries for over a decade (from the late 1990s until five years ago). In recent years, the insecurity and political instability CNPC faced in Sudan and South Sudan has left a lasting impact on the company.

They made hard and soft changes to their security policies based on their experiences of kidnappings, violence and theft in the Sudans. They installed early warning systems in overseas subsidiaries and carried out security training for international staff in how to respond to kidnappings and other incidents. But more significantly, they started to change their soft approach and engage politically overseas to improve security. They stopped simply relying on the host government and in recent years they've started to increase their dialogue with local communities, media and civil society. They've taken part in corporate social responsibility workshops hosted by international NGOs and Sudanese civil society, engaged international risk consultants and really opened up as a company. This is all quite a big step for a large closed state owned company in China.

The Sudan experience also caused Chinese and Indian national oil companies to rethink their overall investment strategy. When the oil companies started to go out and invest abroad for the first time in the 1990s they focused on countries like Sudan, Myanmar, and Iran, where there was little western competition, to get a foothold in the international



Sudan has been a training ground for large state owned Chinese and Indian corporations to test their international competitiveness (Image by ENOUGH Project)

oil industry. A decade later they found they'd over invested in these trouble spots – and when things flare up – like conflict and civil war in Sudan and South Sudan –oil production and revenues were devastated by oil shut downs. So now they're pursuing a diversification strategy, trying to move into the US, Canada and other stable countries in the hope of balancing their international portfolio.

BW: Has public pressure in China and abroad affected companies' behaviour, or have these changes been driven mainly by an economic imperative?

LP: It's a little bit of both. The public pressure internationally and particularly in the US over the role of CNPC in the Sudans created an economic imperative for the company in the sense that they find it hard to invest in the US. For example, Chinese companies would like to be more involved in the shale oil and gas boom that is going on right now in the US. But their involvement in the Sudans has fed opposition against large scale Chinese investment in the US.

I think there is an amazing dynamic underway in China now with the pressure on these corporations to be part of improving air and environment standards

in China. These changes will probably have a big lasting effect on how companies and how they behave abroad. If the government and Xi Jinping decide to put pressure on the state owned oil companies to improve standards in China it will have an effect on companies overseas as well.

“The Sudan experience caused Chinese and Indian national oil companies to rethink their overall investment strategy”

BW: Have the Chinese government's voluntary guidelines for overseas companies had any impact?

LP: I think the big challenge right now for the Ministry of Foreign Affairs and the Ministry of Commerce is to try to coordinate between the diverse set of Chinese companies in Africa that are following their own narrow interests. I think that the Chinese government is trying to improve dialogue with these companies, pass corporate social responsibility policies and suggest how they should behave. But there still isn't much coordination. The national oil companies are very strong at home in China. CNPC used to be the Ministry of Petroleum

and Sinopec was once the Ministry of Chemicals—and they still have strong role in the government and the communist party.

BW: What about the human and environment costs of the oil industry in Sudan and South Sudan and China's role in this?

LP: It's unfair just to focus on China's role in the environmental degradation that's come with the development of Sudan's oil industry. We often blame Chinese corporations because they have poor track records at home and they are repeating this behaviour overseas. But there has never been strong governance over the oil industry from the government in Sudan and South Sudan. Both countries have prioritised the industry over any sort of enforcement of environmental or social measures that might slow down oil production and revenues. Chinese national oil companies in Canada, for instance, and other places where there is stronger regulation, have largely managed to follow laws and regulations quite well.

Without regulation the oil industry in the Sudans has disrupted local livelihoods in different ways. First of all when companies do seismic surveys for oil exploration they carve up kilometres of territory and sometimes destroy farmland in local communities and road construction has dammed water flows and upset irrigation. There are no mechanisms for local communities to complain against Chinese companies.

The biggest negative environmental impact has been the dumping of wastewater from oil production which has killed livestock, caused illness among locals and built resentment against the companies on the ground (and its mainly Chinese companies who are active in the region). They've begun to notice this resentment and want to improve their record in environmental areas as well. But you can't expect even the most advanced western oil company to self-regulate. Chinese companies need a strong Sudanese government with a clear set of regulations to follow and repercussions if they don't follow them like any oil company does.

BW: Are there any major differences in the approach of Chinese and Indian companies?

LP: CNPC and other Chinese national oil companies have a more comprehensive approach to international investment than Indian companies.

When CNPC invests overseas it brings along the whole value chain for the oil company - a construction subsidiary, a catering company - while the Indian companies, like western companies, are mainly focused on oil exploration and production. This has proven to be a big advantage for Chinese oil companies in countries that lack infrastructure. The Chinese oil companies have been able to make a lot of profit because they've been able to offer a range of other services to African countries, such as road construction, building facilities, camps for workers etc.

BW: What major challenges did you face carrying out the research for this book?

LP: At first it was very difficult to make contact with the Chinese national oil companies to speak to me. They were quite closed to meeting with researchers and journalists because they didn't have much experience of dealing with outsiders and were suspicious of my intentions. It took me around three years of travelling back and forth from Sudan to meet anyone from CNPC. But it was remarkable by the end of my research – over a seven year period – how CNPC opened up not only to me but to other researchers and journalists. Because of their security problems and the public pressure on the company they realised they had to become part of the conversation and give their opinion.

BW: How has Xi Jinping's anti-corruption campaign affected oil operations?

LP: It's had quite a significant impact on CNPC. Dozens of managers and executives have been detained. So many people have been taken by the corruption probe that CNPC has people waiting in the wings to replace executives if they are taken by the probe. It has stalled foreign investment too. A big investment in the oil sands in Alberta which PetroChina was supposed to make earlier this year was stalled during the negotiations after the CNPC country president was detained.

But in the long run, a stronger more efficient CNPC could emerge, one that works more closely with the Chinese government than in the past. CNPC has been known for acting on its own and at times thumbing its nose at regulations at home and abroad. This might change now.

非法青金石开采助长阿富汗塔利班组织

史蒂芬·卡特表示，作为青金石这一宝石的主要终端市场，中国将有可能帮助缓解阿富汗北部由矿业引起的冲突

史蒂芬·卡特

长达6500多年的时间里，阿富汗因出产曾备受埃及法老青睐的深蓝色青金石而闻名于世。但是，全球见证（Global Witness）组织经过为期两年的调查发现，在阿富汗北部的巴达赫尚省，青金石矿业正在成为非法武装组织的资金来源，助长了当地的极端主义和腐败现象。

而中国作为青金石的主要终端市场，在消除这种威胁方面发挥着重要作用。

仅2014年至2015年，从巴达赫尚省矿山出口的青金石总价值大约就有2亿美元。其中大部分经由巴基斯坦运往中国，并在中国加工成首饰。

阿富汗虽然是世界上最贫困的国家之一，但却有着丰富的矿产资源。而采矿业在为阿富汗创造税收和促进其发展方面具有巨大的潜力。对于巴达赫尚省这个除了采矿业外，几乎没有什么其他就业机会的省份来说，更是如此。

可是，丰富的矿产资源却成为了这个国家的一颗毒瘤。在巴达赫尚省，青金石矿成为各武装势力争相追逐的宝藏。早在两年多之前，一伙由前任地方警察局长领导的非法武装组织就从政府手中夺走了青金石矿产地区的控制权。但此前，青金石矿业也没有或者很少对税收产生贡献。

在冲突、政府管理薄弱、腐败盛行的环境中，塔利班组织日渐成为青金石矿产的实际收益人。他们从青金石收益中抽取的份额也越来越多。多份外交报告显示，2014年，塔利班组织从青金石交易商和控制该矿产的非法武装组织手里得到的收入为1百万美元。2015年，这一数

字涨到了4百万美元。现在，塔利班从青金石行业获取的收入占该产业收益的50%以上，金额有可能高达每年6百万美元。青金石矿山已经使巴达赫尚省这个曾经的反塔利班中心沦为了该组织的一个重要据点。

此外，巴达赫尚省还是一小撮自称效忠伊斯兰国的团伙的据点。其成员来自附近地区的多个国家，其中还包括中国新疆。虽然尚不清楚该团伙与叙利亚伊斯兰国运动组织联系的真实性及紧密性，而且也没有证据表明他们直接从青金石矿产获利，但这一组织确实和塔利班有密切往来。很明显，围绕青金石矿产的一系列违法行为已经不仅仅关系到发展和道德，更危及国家的安全和稳定。

巴达赫尚省只是阿富汗诸多问题的一个缩影。该国有数千座矿山没有处在政府控制之下。据估计，矿业是塔利班的第二大收入来源，仅次于毒品。很有可能，阿富汗会像其他非洲国家一样，沦为长期资源冲突的牺牲品。

中国的问题

中阿两国接壤，相较于其他国家，阿富汗问题与中国有着更为直接的利害关系。中国长期致力于推进和平与发展，并在当前推动和谈方面扮演着重要角色。但目前其所面临的处境危机四伏。

然而中国却是消除这一冲突威胁的不二人选。凭借着和阿富汗政府之间特殊而紧密的联系，中国能够确保阿政府将矿业改革提上日程，推动并支持阿政府采取坚定的政策行动。这与阿富汗政府的公开意图相符：阿总统阿什



阿富汗闻名于世的深蓝色青金石正在成为非法武装组织的资金来源。图片来源：Philip Poupin

拉夫·加尼曾警告过“资源诅咒”给阿富汗带来的危险，而且阿政府也已经采取了一些鼓舞人心的初步措施，如签署《采掘业透明度行动计划》(EITI)等。

尽管面临着巨大挑战，但是仍有许多应对的措施。首先，阿富汗政府应该将矿区视作其国家安全战略的重要领域。然而，正如巴达赫尚省的情况一样，光是政府控制还不够，还需要依法进行治理。对此，政府需要通过修订法律，要求公开矿业税收和生产数据，规定矿产合同只有公示过后才能生效，为所有采掘相关款项创建单独透明的账户等手段提高矿产行业的透明度。其次，阿政府需要加快落实其已经承诺的矿山所有人公开注册制。最后，为公正起见，合法矿产收益的一部分应当归当地社区所有。上述措施将稳定当地由矿产引发的政治动荡，维护国家安全。

然而，作为阿富汗青金石的主要市场，中国手中还有另一件强有力的武器。如果没有了买家，那些控制青金石矿山的武装团伙将土崩瓦解。如果中国公司在政府的支持下，不再进口非法青金石矿产，不再助长武装分子的气焰，这将为阿富汗的矿业改革提供十分利好的信号。这也正是中国近期出台的《负责任矿产供应链尽责管理指南》所倡导的。落实该指南不仅会造福于阿富汗政府和人民，还使中国从中受益。

对阿富汗来说，该国丰富的矿产资源已经给整个国家带来了巨大的威胁。中国比其他国家更有理由希望看到一个繁荣稳定的阿富汗。鉴于其在阿富汗矿产行业中所扮演的特殊角色，中国有着得天独厚的机遇来化解这场能够让上述梦想轻而易举毁于一旦的危机。

Illegal mining for Chinese market fuels Taliban in Afghanistan

China can help reduce conflict driven by mining of lapis lazuli in northern Afghanistan

Stephen Carter

For 6,500 years Afghanistan has been famous for the brilliant blue lapis lazuli, coveted by everybody from the Egyptian pharaohs to the common jewellers of today.

These days mining of the precious stone is funding illegal armed groups and driving extremism and corruption in the northern province of Badakhshan, a two-year investigation by Global Witness, a London-based campaign group, has revealed.

China – as the major end market for the stone – is in a strong position to help end that threat.

About US\$200 million (1.3 billion yuan) worth of lapis was exported from the mines in Badakhshan between 2014 - 2015. Much of that stone passed through Pakistan to China, where it is used to make jewellery.

Mining has the potential to generate large amounts of revenue and growth for Afghanistan. The country is one of the poorest on earth. The World Bank ranked only a dozen countries whose per capita GDP was lower than Afghanistan's in 2014, but it is rich in minerals. Badakhshan especially has few other sources of employment.

Instead, Afghanistan's riches have proved to be a poison. In Badakhshan, the mines are a prize fought over by armed groups. The government lost control of the lapis mining district more than two years ago to an illegal armed group led by a former local chief of police, but even before this, the industry produced little or no taxes.

The real beneficiaries of mining have been the Taliban, which has flourished in the environment of conflict, weak governance structures and corruption. They are also tapping a growing share of the revenue from lapis.

In 2014, the Taliban received US\$1 million in payments from traders and the illegal armed group controlling the mines, according to diplomatic reports. This grew to about US\$4 million in 2015 and now the Taliban receives more than 50% of the revenues from the precious stone – possibly as much as US\$6 million a year. The mines have helped turn the province of Badakhshan, which was once a heartland of the anti-Taliban resistance, into one of their strongholds.

“China has more reason than most to want Afghanistan to be prosperous and stable”

Badakhshan is also home to a small group who have declared loyalty to the Islamic State – although it is unclear just how strong or real their connection is with the main Islamic State movement in Syria. This group includes fighters from many countries around the region, including from Xinjiang in China.

While there is no evidence they receive funding directly from the mines, they do have a close relationship with the Taliban. It is clear that the abuses around the mines are not just a matter of development or morality: they are a matter of security and stability.

Badakhshan is a microcosm of the wider problems across the country, where there are thousands of mines outside of government control. Mining is estimated to be the second largest source of income for the Taliban after drugs. There is a very real risk that the country could fall prey to a prolonged, resource-driven conflict like those that have affected parts of Africa.

CHINA'S PROBLEM

With a common border with Afghanistan, China has a more direct interest than many countries. It has long sought to cast itself as a strong champion for peace and development, and has an important role in current efforts to start peace talks. All that could be put at risk by Afghanistan's domestic conflict.

But China is also well-placed to reduce this threat of conflict. With its unique and strong relationship with the Afghan government, it can ensure that reforming the mining sector is on the agenda, and press for decisive policy action. This is in line with the Afghan government's declared intentions. President Ashraf Ghani has warned of the dangers of an Afghan "resource curse", and the Afghan government has taken some encouraging initial steps, such as signing up to the Extractive Industries Transparency Initiative.

While the challenge is great, there is much that can be done. First and foremost the Afghan government should make mining areas a much higher priority for its security strategy. But as Badakhshan shows, government control is not enough – what is needed is the rule of law.

To do this the government needs to strengthen transparency, by amending the law to require publication of data on mining revenues and production, to make contracts valid only after they have been made public, and to set up a single transparent account for all extractive payments. The government has committed to a public register

of the owners of mines – a measure which should be implemented as a matter of urgency. Finally, local communities should be given a percentage of the revenues from legal mining as a matter of basic justice. All this could change the political dynamics around mining and improve security.

China, as the main market for lapis, has another powerful tool in its hands. Without buyers the armed groups that control the mines will see their power crumble. If Chinese companies, with their government's support, refuse to import lapis that is mined illegally or contributes to armed groups, it will create an irresistible incentive for reform. This sort of due diligence is precisely what recent Chinese industry guidelines call for. Putting this guidance into practice would benefit not only the Afghan government and the local people, but China as well.

Afghanistan's enormous mineral wealth has become a major threat to the whole country. China has more reason than most to want Afghanistan to be prosperous and stable. Its special role in Afghan mining gives it a unique opportunity to head off a danger that could so easily turn that dream to dust.

中国水泥业转战塔吉克斯坦

随着国内利润的枯竭，中国水泥企业在中亚地区寻找新商机

德克·范德克雷

短短3年间，中国投资者改造了塔吉克斯坦的水泥行业。2013至2015年间，由于国内水泥市场产能严重过剩，中国投资者纷纷将目光转向塔吉克斯坦，在那里新建了几座大型的水泥工厂，推动塔吉克斯坦国内水泥产量增长了4倍。

中国水泥企业的国内发展环境正是艰难时候，不仅利润缩减，而且此前国家还出台新的法律打击污染企业，众多高污染、低效能的企业或是被迫关闭，或是缴纳环境损害费用。水泥业是全球污染最严重的行业之一，也是二氧化碳及雾霾的主要来源。而雾霾正在中国掀起一场健康危机。

目前，中国生产者正在全球范围内寻找水泥售价高且竞争较弱的市场，而塔吉克斯坦刚好符合小部分中国投资者的要求。但该国国内水泥市场有限，腐败问题猖獗，再加上中亚其他地区的中国水泥厂之间日趋激烈的竞争，进一步限制了开拓塔吉克斯坦市场的机会。

塔吉克斯坦的经济在前苏联国家中最为落后。这个国家地处内陆，多山，东临中国，南面与阿富汗接壤。1991年苏联解体后，塔吉克斯坦作为一个新独立的国家挣扎求生，国内生活水平不断恶化，2000年人均国内生产总值跌至仅139美元。大批塔吉克人离开祖国，前往经济繁荣的俄罗斯谋求工作，把挣的钱寄回家中。因此，2000至2014年间塔吉克斯坦经济年增长率都达到了6%以上。但这个国家依旧贫穷，发展的产业数量也有限。目前，海外劳工汇款总额占到塔吉克斯坦国内生产总值的50%，对此各方的估值可能会有所差异。除此之外，棉花和铝的出口是该国的主要收入来源。

塔吉克斯坦的水泥行业曾在苏联解体后的去工业化运动中遭受冲击。2013年，该国水泥产量极小，仅3万吨，另外从巴基斯坦、伊朗及哈萨克斯坦进口300万吨。

与此同时，中国国内许多行业都存在供应严重过剩的问题，水泥业亦是如此。2011至2013年间，中国水泥产量约66亿吨，超出了美国整个20世纪的水泥生产总量。

丝绸之路沿途水泥过剩

目前，中国政府明确支持本国生产者将过剩的产能转向海外。这一决定被视为中国一带一路倡议的主要组成部分，一带一路倡议旨在改善基础设施建设，为中国在亚洲乃至全球的投资提供巨大市场。中亚各国是实施这一倡议的主要地区之一，是中国进入欧洲及中东地区市场的陆上通道。

然而，我们很难衡量一带一路倡议对在塔吉克斯坦的中国投资者们造成了怎样的影响。一方面，2013年9月习近平在哈萨克斯坦首次提出“丝绸之路经济带”之后，中塔双方签署了众多行业加工项目。但即便没有所谓的“经济带”，这些项目仍旧会提上日程。此外，尽管中国两大主要水泥投资商现在都为自己的项目贴上了“一带一路”的标签，但早在2011年，他们就已经开始为项目的开展搭桥铺路。

不少中国投资者已经签署协议，计划在塔吉克斯坦投建水泥工厂，但真正落成的（无论规模如何）却仅有少数几家，其中最著名的是华新水泥。该公司于2011年签署协议，获准在塔吉克斯坦首都杜尚别附近建设一座年产量120万吨的水泥厂，这也是华新首次涉足海外项目。

2016年3月，华新在塔的第二家年产量120万吨的水泥厂在该国北部投产。另一家产量稍小的华新水泥厂计划将于今年早些时候在南部城市丹加拉投入生产。此外，浙江一私营水泥生产企业和塔吉克水泥共同投资建设了一条年产量为60万吨的水泥生产线，已于2015年4月投入运营。有传言称，该工厂将把产能扩大至年产量150万吨。其他关于中国投资建设水泥厂的消息还有很多，但最终能否建成还尚待分晓。

中国水泥工厂主要以煤炭为燃料。企业声称自己工厂使用的是先进的环保节能技术，却没有指明确切的标准。可以肯定的是，这些工厂所用技术的清洁程度确实要高于塔吉克斯坦国内之前的小型水泥工厂。但塔吉克斯坦国内环保法规的执行工作仍十分松懈，政府工作透明度有限也使得独立核查工作很难展开。

新工厂似乎可以盈利。华新公司副总裁兼副总经理王锡明在一次采访中表示，初始项目投入生产后一年内就盈利了。他还补充说，塔吉克斯坦的水泥价格远高于中国国内及东南亚的价格水平。此外，中国主要水泥投资商在该国还享有税收优惠。

塔吉克斯坦对中国企业的敌对程度也低于中亚其他国家。在吉尔吉斯斯坦和哈萨克斯坦，针对中国企业及惠及中资企业的法律的抗议活动相对较为普遍。塔吉克斯坦没有发生此类情况，可能是由于其国内的专制控制程度较高。

有人会担心中国企业不会雇佣大量的塔吉克人。对此，华新水泥表示，自己的第一座工厂将会为当地创造1000个就业岗位。笔者曾多次参观中国在塔的工业项目，发现工人中确实有当地人，也有中国人。不同的行业和公司，当地人和中国人的组合结构也不同。通常而言，塔吉克人主要从事非技术性体力劳动，而技术工人和工程师往往是中国人。但是也有例外，笔者在领英上简单搜索了一下华为塔吉克斯坦分公司的情况，发现有很多塔吉克人担任高级工程技术和岗位。当然，也有中国人在塔吉克斯坦从事非技术性劳动工作。

中亚市场饱和

有了来自俄罗斯的汇款，塔吉克斯坦主要城市正在大兴土木，而腐败似乎也是推动这一增长的动力之一。但塔吉克斯坦国内市场太小，无论其如何增长，都不能解决华新或其他中国大型生产企业在国内面临的困境。

有一种解决方案是中国公司将自己的产品出口至中亚其他地区。事实上，有报道称塔吉克斯坦的中国水泥生产者已经开始尝试将水泥出口至阿富汗、吉尔吉斯斯坦以及乌兹别克斯坦。此外，塔吉克斯坦政府也力争到2020年使自己的国家成为水泥净出口国。

但限制也是存在的。首先，中国企业承诺将在中亚各地投建水泥厂，这样一来他们就会面临激烈的竞争。华新副总裁王锡明已经提出，中国在塔企业应避免相互之间的过度竞争。

第二，塔吉克斯坦腐败现象严重，严重抑制了中国的投资。中国投资者曾在采访中表示，自己在日常业务交往的很多方面都面临着一些轻微的腐败行为。此外，在项目层面，中国企业必须提防塔吉克斯坦审批制度，谨防被驱逐出市场的风险。中国投资商上峰水泥就被迫取消了与当地合作伙伴共同进行的水泥项目。该公司在公告中透露，取消的原因是未能取得塔吉克斯坦相关审批部门完整合法有效的审批文件。

最后，经济不稳定仍旧是一个问题。近年来，中亚地区来自俄罗斯的劳工汇款数出现下降，可能导致该地区的水泥需求量随之减少。这一现象也导致塔吉克斯坦标准货币索莫尼的汇率出现大幅波动，华新水泥在报告中称这种波动对公司盈利有着“较大的负面影响”。

这些挑战说明在塔吉克斯塔，大多数可以轻松赚取利润的水泥项目都已经被开发殆尽。水泥作为该国少有几个蓬勃发展的行业之一，给这个国家带来的短期收益已经十分明显，但这种繁荣可能很快会消失殆尽，只留下搁浅的实物资产，让政府来收拾烂摊子。

China shifts polluting cement to Tajikistan

Chinese cement companies are scouring Central Asia for new opportunities as profits dry up at home

Dirk van der Kley

In the space of three years, Chinese investors have transformed Tajikistan's cement industry. A handful of new, large Chinese-funded cement plants increased Tajik production of the material fivefold between 2013 and 2015, amid huge overcapacity in the Chinese market.

Chinese cement companies are facing a tougher time at home, as profits fall and less efficient, more polluting plants are forced to shut down or pay the costs of environmental damage in the wake of new laws and a crackdown on pollution. Cement is one of the world's most polluting industries and a major source of carbon dioxide and smog that is causing a health crisis in China.

Chinese producers are now scouring the world for locations where cement prices are high and local competition weak. Tajikistan fits the bill for a small number of Chinese investors. However the country's tiny domestic market, rampant corruption and increasing competition from Chinese cement plants across Central Asia has limited opportunities for further expansion.

Tajikistan is the poorest of the former Soviet states. Mountainous and landlocked, it borders China to the east and Afghanistan to the south. After the collapse of the Soviet Union in 1991, the country struggled to support itself as a newly independent state. Living standards deteriorated and by 2000 GDP per capita dropped to just US\$139 (927 yuan). Large numbers of Tajiks left to work in Russia's booming economy and send money home. As a result, the Tajikistan economy grew at over 6% per annum

between 2000 and 2014. But the country remains poor with limited industry. Currently remittances comprise as much as 50% of GDP, though estimates vary. Beyond this, cotton and aluminum exports are major sources of revenue.

Tajikistan's cement industry suffered from post-Soviet de-industrialisation. In 2013 the country produced a miniscule 30,000 tonnes, with about 3 million tonnes imported from Pakistan, Iran and Kazakhstan.

At the same time China's domestic cement, like many other industries, is vastly oversupplied. Between 2011 and 2013, China produced more cement than the US did in the whole of the 20th century - approximately 6.6 gigatonnes.

CHINA'S EXCESS CEMENT ALONG THE SILK ROAD

The Chinese government is now explicitly supporting Chinese producers to move excess capacity offshore. It is seen as one of the major planks of China's "One Belt, One Road" (OBOR) initiative - a plan aimed at improving infrastructure and providing a huge market for Chinese investment across Asia and beyond. Central Asia is one of the key regions for the initiative as it can provide an overland pathway to markets in Europe and the Middle East.

However, it is difficult to gauge the impact OBOR has had on Chinese investors in Tajikistan. On the one hand there have been numerous industrial processing projects signed since Xi Jinping announced the "Belt" component of OBOR



A cement factory 25 kilometres north of Tajikistan's capital, Dushanbe (Image by Prince Roy)

in Kazakhstan in September 2013. But these may have been proposed anyway. Moreover, the two main Chinese cement investors began laying the groundwork for their projects by 2011, even though they both now brand their projects as “OBOR”.

While a handful of Chinese investors have signed agreements for cement plants in the country, only a small number of investors have actually constructed plants of any scale. The most prominent investor, Huaxin Cement signed an agreement to build a 1.2 million tonne per annum (mta) cement plant near the capital Dushanbe in 2011 and was Huaxin's first overseas project.

A second 1.2 mta Huaxin plant opened in northern Tajikistan in March 2016 and a smaller Huaxin

plant is scheduled to open in the southern city of Dangara later in the year. Another joint venture between a private Zhejiang producer and domestic producer, Tajik Cement, opened a 60 mta cement production facility in April 2015. It is rumoured this plant will expand capacity to 1.5 million tonnes per annum. There have been numerous other announcements for future Chinese cement plants but it remains to be seen if these materialise.

The Chinese cement plants mainly use coal for their fuel. The companies claim that their plants are using advanced environmental and energy saving technology, without specifying exact standards. It is almost certain that they use cleaner technology than the small pre-existing cement plants in Tajikistan.

However enforcement of environmental regulations in Tajikistan remains lax and limited government transparency makes independent verification difficult.

The new plants seem to be proving profitable. Huaxin vice president and deputy general manager Wang Ximing said in an interview that its initial project was profitable within its first year. He added that prices are much higher in Tajikistan than China or even Southeast Asia. Moreover, major Chinese cement investors receive tax concessions in Tajikistan.

Chinese companies in Tajikistan also face less hostility than in other Central Asian countries. In Kyrgyzstan and Kazakhstan, protests against Chinese companies, and laws perceived to benefit Chinese companies, have been relatively commonplace. These have not materialised in Tajikistan probably due to greater levels of autocratic control.

There is palpable concern that Chinese companies don't employ enough Tajiks. Huaxin, for its part, argued that its first plant would create jobs for 1,000 locals. From various visits to Chinese industrial projects, I have observed a mix of locals and Chinese working. This mix varies by industry and company but Tajiks are often employed in the unskilled labour jobs while skilled workers and engineers tend more often to be Chinese. There are exceptions – a quick LinkedIn search of Huawei Tajikistan reveals numerous Tajiks working in senior engineering and management positions. Of course, unskilled Chinese labourers can be found in Tajikistan too.

MARKET SATURATION IN CENTRAL ASIA

Tajikistan is experiencing a construction boom in the major cities funded by remittances from Russia and corruption seems to be driving this increase. Regardless of growth, Tajikistan's small market is no solution for Huaxin's or other large Chinese producer's domestic woes.

One solution is for Chinese companies to export their product to other parts of Central Asia. In fact Chinese cement producers in Tajikistan have

reportedly begun trial runs of exports to Afghanistan as well as Kyrgyzstan and Uzbekistan. Furthermore the Tajik government seeks to become a net cement exporter by 2020.

But there are limits. First, Chinese companies are promising to build cement plants across the region, and so could find themselves in fierce competition. Wang Ximing of Huaxin already flagged the need to avoid excess competition between Chinese firms in Tajikistan.

Second, corruption inhibits Chinese investors in the country. Interviews with Chinese investors in Tajikistan indicated that they faced petty corruption in many of their daily business interactions. Moreover at a project level, it is necessary to navigate Tajikistan's web of patronage or risk being shut out of the market. A Chinese investor Shangfeng Cement was forced to cancel a cement project with a local partner after it failed to receive the correct documentation from the Tajik government, according to a company announcement.

“Cement is one of the world's most polluting industries and a major source of carbon dioxide and smog that is causing a health crisis in China”

Finally, economic instability remains a problem. Remittances from Russia have fallen across Central Asia in recent years. This could lower regional demand for cement. It has also led to large fluctuations in the Tajik Somoni's exchange rate which Huaxin reports as having a “fairly large negative impact” on its profits.

These challenges mean that most of the easy profit-making cement projects in Tajikistan could already be taken. But though the short term benefits for Tajikistan are already palpable – cement is one of the few industries thriving in the country – this boom could rapidly peter out leaving the country with stranded concrete assets to clean up.

柏杉林，一家在圭亚那拥有多重利益的中国采伐企业

鉴于这家主导企业正在进行利益转移，圭亚那政府必须采取强制法律措施保护该国林业环境

杰斯特·布尔坎

2015年5月，民族团结合作联盟（APNU）在圭亚那大选中取得胜利，为人民进步党（PPP）近23年独霸政坛的历史画上了句号。

圭亚那是一个资源富饶的南美小国，北临加勒比海，其他三面分别与委内瑞拉、苏里南、巴西三国接壤。许多人也希望，新一届政府可以结束柏杉林集团在该国一直以来的特殊待遇。柏杉林集团是一家部分国有控股的中国伐木企业，从2007年开始进驻圭亚那市场。

民族团结合作联盟曾经在选举期间承诺，当选之后一定坚决贯彻“依法治国”的理念，任何享受外商直接投资协定优惠待遇的企业都必须同时遵守合约条款和圭亚那法律。但是现在看来，柏杉林等中国企业却仍旧“独霸一方”。

要想明白这其中缘由，首先要对圭亚那的近代政治史和独有的生态环境有一个全面了解。

来自美国的非盈利组织全球金融诚信发现，在2008年到2012年间所有因不正当资金流量而接受调查的82个国家中，圭亚那排名第25，不正当资金流量在其国内生产总值和贸易总额中的占比分别为17.3%和16.4%。

2008年到2012年期间，圭亚那人均国内生产总值2866美元，而人均不正当资产流量495美元。按照人口比例来看，这样的不正当资产流量在所有受调查国家中排名第5。圭亚那的情况也算是一个地区特例，因为在所有上榜的前25个国家中，圭亚那是唯一的加勒比地区国家，以及仅有的两个南美国家之一。

圭亚那热带森林资源丰富，而且有许多独有的木材品种，比如绿心樟（*Chlorocardium*

rodiei）、大膜瓣豆木（*Hymenolobium flavum*）、紫芯苏木（*Peltogyne venosa*）和斯沃铁豆木（*Swartzia leiocalycina*），这些都是广受中国市场欢迎的原木品种。

除了林业采伐和原木贸易，中国企业在建筑、零售和其他一些商业领域也占据了主导地位。而柏杉林集团则成为了新政府在落实合同公平或资源可持续管理方面不作为的“典范”。

高选择性的采伐行为

根据国家林业政策和林木采伐资源行动守则的要求，为保护具有经济价值和重要生态意义的树种，确保木材的可持续生产，圭亚那林业委员会应当为每个特定林木品种设立各自的采伐比例上限。然而事实却并非如此。

在圭亚那并不算肥沃的土地上，许多树木都是以单品种树丛或者小树林（当地称之为“暗礁”（reef））的方式存在。除非按照规定保证树丛之间的特定距离，否则这些小树林很可能遭遇过度采伐的厄运。换句话说，在这些树丛中就不应该进行高强度的采伐。

圭亚那的热带原木质地坚硬、比重大、尺寸稳定性高（不会收缩或膨胀）、颜色厚重，是制作奢华家具和耐冲击木地板的绝佳材料，因此一直受到中国柏杉林集团合作伙伴及其他买家的热捧。

但是上述这些原木品种生长速度缓慢，所以正确的方式应该是进行保护性采伐。而实际上，计税所用的原木直径记录显示，柏杉林集团及其上线木材采伐企业所采伐的原木直径已经越来越小，根本没有考虑未来林木供应。

也就是说，要想在可持续前提下进行下一次采伐，恐怕要等待数十年甚至几百年，而这显然是与可持续林业管理相关政策规定相背离的。

自上世纪50年代以来，圭亚那林业委员会（GFC）就已经意识到要遏制这种非持续性的采伐行为，保护好圭亚那这1000多种最具经济效益的树木品种。向中国出口顶级木材带来的巨额收益使得柏杉林集团可以通过金钱逃脱圭亚那官方规定的制裁。其实，违反上述规定的罚金额度并不高，根本起不到遏制非法行为的作用。而且当涉事方变成具有政治利益背景的大型企业的时候，所谓的“惩罚”也往往不了了之。

事件的相关性

圭亚那政府曾被指控串通柏杉林集团，允许后者违反当地法律，从小型采伐企业联盟（SLAs）企业手中购买采伐份额并以小企业名义出口海外。当地媒体对多起涉嫌违法行为进行了报道。

有独立消息报道，2016年3月下旬，圭亚那第二号实权人物、总统办公室国务部长约瑟夫·哈蒙在商务顾问B·K·蒂瓦里的陪同下对中国进行了一次官方访问。蒂瓦里是一位有争议的商业人士，与上届人民进步党政府关系密切，还曾多次卷入柏杉林集团非法土地交易诉讼案件。

在公众的强烈抗议之下，圭亚那总统大卫·格兰赫尔在哈蒙返回圭亚那之前，宣布免除今年早些时候哈蒙对蒂瓦里的商业顾问的任命。

据称这次风波平息后不久，哈蒙便要求圭亚那税务局官员停止一项针对柏杉林的行动。由于柏杉林偷税漏税，圭亚那税务局原打算没收其名下的三辆豪华汽车。同样，总统方面再次迅速出手干预，而且还保证圭亚那税务局的行动不会受到政治干涉。

面对对政府的种种指控，圭亚那税务局主席洛雷·卢卡斯表示：“税务局将会继续履行自己的义务和责任，而且不会因为畏惧或诱惑做出任何让步。我们要做的就是重塑税务局的信心，保证以前的错误不再出现。”

《凯厄图尔新闻》是圭亚那两大独立报纸之一。而哈蒙这张出现在《凯厄图尔新闻》上的照片显然是拍摄于3月27日访华期间。照片显示，哈蒙乘坐的是一驾私人飞机，同行的还有

柏杉林集团的初汶泽和初宏博（音），以及圭亚那第二大中资木材采伐及交易企业荣安股份有限公司的苏志荣（音）。

圭亚那林业部长拉斐尔·特罗特曼表示：“但就这张照片来说，看起来的确让人不大舒服。”最终，哈蒙还是发表了一份声明，特地说明是中国驻圭亚那大使安排了这次行程，前往黑龙江访问当地的龙江森林工业集团。

龙江森林工业集团是一家中国国有企业，拥有柏杉林集团55%的股份，并计划于2016年全面收购柏杉林集团。按照圭亚那法律规定，任何一项针对柏杉林集团采伐特许权的收购都应事先获得该国总统的批准。而目前尚未有证据显示龙江集团已经得到了这份许可。

柏杉林集团的利益

柏杉林集团一直在滥用圭亚那政府颁发的外商直接投资特许权，并通过拓展投资组合不断截取商业利益。2007年，柏杉林集团宣称将投资1亿美元，分别在两地设立木材增值加工企业。然而9年过去了，连个木材加工厂的影子都没有。

柏杉林集团过去这些年的利益来源可以说相当广泛，包括黄金开采、沙石运输、木材与石料运输驳船建设、免税进口钢铁销售、房地产、民居建设、政府部门停车场和购物中心建设等。

2007年，柏杉林宣称拥有圭亚那境内40万公顷森林的采伐权。而2012年11月，这一数字攀升到了95万公顷，尽管圭亚那森林委员只认定了其中的62.7万公顷。独立统计数据 displays，当时这一数字事实上已经接近150万公顷。

柏杉林集团进口的200辆供木材加工厂使用的免税汽车其实绝大多数都被用在了集团旗下的其他业务中。此外，柏杉林集团获得的免税燃料原本也应该用于采伐业务。相比于其他没有享受外商直接投资优惠的当地企业来说，这样的政策让柏杉林旗下的19个子公司在圭亚那拥有了无与伦比的成本优势。

有知情人士将柏杉林集团2012年到2015年免税进口和减税申请的部分复印件泄露给了《凯厄图尔新闻》，更多惊人新闻也陆续被发掘和报道出来。进口物料中包括：10亿公吨水泥、10亿米电线、20亿桶漆料以及10万吨钢铁——而以上这些都是得到时任财务部长批准的。这些申

请似乎都说明柏杉林集团打算建设木材加工设施，但是从2007年以来，建设进度却迟迟没有进展，圭亚那方面对此也鲜少提出质疑。

2012年11月，柏杉林集团首席执行官初汶泽当选中国木材与木制品流通协会副主席。该行业协会共设有4个副主席职位。除一般活动之外，该协会还会组织木材贸易代表与政府部门进行交流洽谈。中国木材与木制品流通协会此前曾反驳环境调查署发布的一份名为《毁灭的欲望》（Appetite for destruction.）的非法木材贸易报告。

展望未来

龙江森林工业集团全资收购柏杉林集团行动在即，而圭亚那政府在这一事件上的态度将直接反映其在执政透明度与恪守法律等问题上的立场。

中圭两国曾经在2003年签署过一份双边贸易协定，呼吁各方尊重圭亚那法规要求。此外，任何外商直接投资协定都应符合经济合作与发展组织最新报告指导意见和中国国家林业局、中国商务部指导意见要求。

圭亚那应该坚持全面贯彻已经获批的各项国家政策、法规和林业采伐行为守则。要想在林业产业完成这一目标，就必须放弃过去那种随心所欲的办事风格和政治干预传统，让包括柏杉林在内的所有林木采伐企业都积极遵守法规要求。

为了积极落实今年初提交至部长级机构任命圭亚那森林委员会董事会的建议，圭亚那应当向该国最高法院提出禁令申请，限制柏杉林集团的经营行为。具体过程可仿效马来西亚沙撈越州首席部长的做法——据称其改革在打击非法林业活动方面的作用可谓立竿见影。如果还不采取行动，那么圭亚那的法治就会像圭亚那森林的未来一样，前途未卜。

Bai Shan Lin: the Chinese logger with multiple interests in Guyana

Government must enforce laws to ensure forest conservation as dominant company transfers interests

Janette Bulkan

The victory of the A Partnership for National Unity (APNU) coalition in Guyana's May 2015 elections signalled the end to the uninterrupted rule of the Progressive People's Party (PPP) that had begun in 1992.

Many also expected an end to the preferential treatment given to partially state-owned Chinese logging company Bai Shan Lin (BSL), which in 2007 began operating in this small but resource-rich South American country nestled between Venezuela and Suriname on the Caribbean coast to the north of Brazil.

The APNU coalition had promised during its election campaign that the "rule of law" would prevail under its watch, and that companies benefitting from Foreign Direct Investment (FDI) agreements would have to comply with both the terms of their contracts and Guyanese law. Yet Chinese companies, such as BSL, continue to dominate.

Understanding why means taking into account the country's recent political history and unique ecology.

Global Financial Integrity, a US-based non-profit, found Guyana among the top 25 of 82 countries surveyed from 2008 to 2012 for illicit financial flows (IFF), estimated at 17.3% of its GDP and 16.4% of its total trade.

Over that period, Guyana's GDP per capita was US\$2,866 while its IFF per capita was US\$495, placing it at number five in terms of IFF relative to population. It was a regional outlier, being the only Caribbean country and one of two South American countries in the top 25.

Guyana has abundant tropical forests with unique varieties of timber including greenheart (*Chlorocardium rodiei*), darina (*Hymenolobium flavum*), purpleheart (*Peltogyne venosa*) and wamara (*Swartzia leiocalycina*), which are highly sought-after on the Chinese market.

Aside from logging and log trading, Chinese companies are also prominent in construction, retail and other commercial sectors. BSL provides one illustration of how the new government is not enforcing the rules to ensure the fair award of contracts or the sustainable management of resources.

HEAVY SELECTIVE LOGGING

National forest policy and the voluntary codes of practice for timber harvesting require the Guyana Forestry Commission (GFC) to set species-specific harvest rates so as to conserve viable populations of commercially desirable and ecologically important trees and ensure sustainable timber production. This has not been done.

On the naturally infertile soils of Guyana, some of these trees grow in single-species clumps or groves known locally as 'reefs'. These are very susceptible to over-cutting unless rules on maintaining an adequate distance between tree stumps are carefully observed. There should be no heavy felling in these clumps.

Guyana's tropical timber is in high demand from factories in China of BSL's associates and other buyers, owing to its hardness, heaviness, dimensional stability (it does not shrink or swell) and dark colour,

desirable for luxury furniture and impact-resistant wood floors.

These timbers are also slow-growing, so conservative harvesting should be the norm. But in practice, BSL and the tree fellers from whom it purchases logs have been cutting smaller and smaller trees, as log diameters recorded for tax purposes show. There is no regard for the provision of the next crop. This means the next harvest cannot be felled for many decades, perhaps hundreds of years, which entirely contradicts the policies and rules for sustainable forest management.

The GFC has been aware of the importance of preventing the unsustainable felling of the most profitable of Guyana's more than 1,000 species of tree since the 1950s. The huge profits that can accrue from exporting top timbers as logs to China enable BSL to pay its way past official rules. Penalties for breaking the rules provide scant disincentive since they are too small and are not always enforced in the case of large and politically-connected companies.

CONNECTIONS

The Guyanese government has been and is accused of acting in collusion with BSL, allowing the company to contravene local laws and get around logging quotas by purchasing from small loggers associations (SLAs) and exporting under their names. Local media have reported a number of cases of alleged wrongdoing.

In late March 2016, Joseph Harmon, minister of state in the office of Guyana's president – de facto the country's second most powerful leader – went on an official visit to China accompanied by “business advisor” B.K. Tiwari, independent press reported. Tiwari is a controversial businessman who had had close links to the previous PPP government, and is embroiled in a number of court cases with Bai Shan Lin over illegal land deals.

Following a public outcry, and before Harmon had returned to Guyana, president David Granger publicly rescinded the “business advisor” appointment that Harmon had apparently conferred on him earlier in 2016.

Shortly after the affair, Harmon reportedly told Guyana Revenue Authority (GRA) officials to abort

an ongoing operation aimed at repossessing three luxury vehicles owned by BSL, on account of non-payment of taxes. Again, presidential intervention quickly followed, with the assurance that the GRA would operate without political interference.

“The GRA is going to carry out its duties and its responsibilities, and it has recommitted to doing so without fear or favour,” Rawle Lucas, chairman of the GRA said in response to the allegations, adding; “we are all about restoring confidence in this agency and ensuring that mistakes of the past are not repeated.”

A photograph also appeared in *Kaieteur News*, one of Guyana's two independent newspapers, apparently taken on 27 March during the China trip, of Harmon in a private jet flanked by Chu Wenzhe and Chu Hongbo, of BSL, and Su Zhirong, of Rong-An Inc., the second biggest Chinese logger and log trader in Guyana.

“The picture by itself, of course, is a very uncomfortable one to look at,” admitted Raphael Trotman, the minister for forestry. Harmon finally issued a statement which claimed inter alia that the Chinese Ambassador to Guyana had arranged the private jet trip for him to visit Long Jiang Forestry Industries Group, a company based in Heilongjiang Province, in northeastern China.

“Local media have reported a number of cases of alleged wrongdoing”

The Long Jiang group is a state-owned company that had acquired 55% of the shares in Bai Shan Lin and intends to fully take over the company in 2016. Any such acquisition of BSL's logging concessions would require prior presidential approval under Guyanese law. There is no evidence that this has been granted.

BSL'S INTERESTS

BSL has misused its FDI concessions from the Guyana government to expand its portfolio of business interests. In 2007 BSL declared its intention to invest

US\$100 million in value-added wood processing at two locations. Nine years later, there is still no wood-processing factory.

BSL has since acquired interests in gold mining, transporting sand and stone, barge construction for transport of logs and quarried stone, selling duty-free imported steel, real estate, construction of residential housing, a government ministry car park and a shopping mall.

In 2007, BSL said it had rights to log 400,000 hectares of forest in Guyana. By November 2012, it claimed to control 950,000 hectares of forest although the GFC only counted 627,000 hectares. Independent calculations showed that the figure was closer to 1.5 million hectares.

Many of the 200 vehicles imported duty-free for use in BSL's wood processing factory were actually deployed in BSL's other businesses. The use of duty-free fuel also intended originally for logging gives the BSL group of some 19 subsidiary companies in Guyana an unbeatable cost advantage over local enterprises which do not enjoy such FDI benefits.

Copies of some of the 2012-2015 requests by BSL for duty-free imports and tax relief claims were leaked to the independent newspaper Kaieteur News, with some of the more amazing requests extracted and published. These included: 1 billion tonnes of cement, 1 billion metres of electric wire, 2 billion pails of paint and 100,000 tonnes of steel – all of which were approved by the then minister of finance. Each application referred to BSL's intention to construct the wood processing facility, with only rare queries from the Guyanese about the lack of any progress since 2007.

Chu Wenze, BSL's CEO, was elected in November 2012 as one of four vice presidents of the industry association, the China Timber and Wood Products Distribution Association (CTWPDA). Among other activities, the association hosts events at which wood trade representatives rub shoulders with government officials. The CTWPDA rejected a report by the Environmental Investigation Agency on the trade in illegal timber entitled *Appetite for destruction*.

LOOKING AHEAD

The Guyana government's decision in the matter of the full takeover of BSL by Long Jiang Forestry Industries Group is seen as a test case as to whether the Guyana government will ensure transparency and compliance with legal requirements.

China and Guyana signed a bilateral trade agreement in 2003, which calls for respect for Guyana's laws. Moreover, any FDI agreements should follow the guidelines set out in the latest report of the Organisation of Economic Cooperation and Development (OECD) and the guidelines produced by the State Forestry Administration and Ministry of Commerce in Beijing.

Guyana should apply consistently, transparently and without any bias the approved national policies and laws and forest harvesting codes of practice. For this to happen in the forestry sector, it will be necessary to put an end to discretionary practices and the tradition of political interference in order to bring BSL and other logging companies into compliance.

In keeping with recommendations made earlier this year to the ministerially-appointed board of directors at GFC, an action should be brought to Guyana's high court to secure injunctions to bring a halt to BSL's operations, following the example of the Chief Minister of Sarawak in Malaysia – which had a dramatically beneficial effect in greatly reducing illegal forest activities almost overnight. Without such actions, the rule of law in Guyana, like the future of its forests, hangs in the balance.

印度太阳能之梦仰仗中国出口

中国制造业产能过剩导致的太阳能光伏电池和其他设备价格下滑，使得印度太阳能产业获得迅猛发展

苏姆亚·萨卡尔

印度的太阳能产业正处于前所未有的高速发展时期，这主要得益于快速下滑的关税税率，日益提高的技术水平，以及主要集中在中国的全球太阳能光伏电池板和其他材料的供给过度。尽管目前印度的市场规模还不及美国、中国和日本，但其发展速度却是几个主要市场国家中最快的。

印度预计2016年新增太阳能装机540万千瓦，成为全球第4大太阳能市场。目前，印度全国太阳能总装机为780万千瓦。而美国的现有太阳能装机容量则高达2500万千瓦。所以说，未来印度市场前景光明。能源咨询机构印度之桥（Bridge to India）在其最新出版的《印度太阳能产业指南》中指出：“在后联合国气候变化大会（巴黎气候峰会）时代，随着产业成本快速下降，各国环境保护日程相继出台，整个太阳能产业发展环境一片大好。”而马克姆资本集团（Mercom Capital Group）也在其《印度太阳能市场季度动态》中表示：“目前的太阳能管线建设计划总量为2200万千瓦，其中有1300万千瓦已经开工建设。”

印度太阳能产业的快速发展得益于全球太阳能光伏设备供应过量。印度之桥表示：“最近的市场报告显示，中国太阳能电池组件供应过量现象日渐显现，2016年下半年尤其明显，未来很有可能带动市场价格出现重大调整。”中国太阳能产业（特别是二级企业）不得不进一步下调产品价格，并放眼海外市场。

投资银行摩根士丹利在8月2日的一份报告中指出：“已经有多家主流太阳能设备制造商宣布在2017年前提高产能。总的来看，我们预计

2016年10家主要制造商新上线光伏电池产能大约为1500万千瓦，其中大部分新增产能（1400万千瓦）都将来自中国。”

与此同时，市场研究公司IHS认为，2016年剩余时间内中国国内太阳能产业需求量将出现急剧下滑。这家知名信息提供商还指出，2016年第4季度太阳能光伏组件的价格将比上半年下降10%。印度之桥表示，这样的价格跳水对印度太阳能市场来说时机正好，因为他们预计2017年前3个月将成为印度太阳能新增产能幅度最大的一个季度，总量可能高达200万千瓦。

然而，不断走低的资金成本、疲软的海外市场，以及积极主动的政策导向，并没有带来印度国内太阳能产业制造能力的提高。咨询公司毕马威在一份报告中警告称：“印度2030年太阳能装机容量将达到1亿千瓦。而相关制造业能力缺席将导致印度进口的太阳能设备总值高达420亿美元。”

印度之桥在一份行业动态文章中指出，印度已经成为中国供应商的主要新增市场。该机构表示：“除非中国国内市场需求发生改变，

“然而，不断走低的资金成本、疲软的海外市场，以及积极主动的政策导向，并没有带来印度国内太阳能产业制造能力的提高”

或者欧盟解除对中国供应商的贸易壁垒，否则未来几个季度内太阳能市场价格仍将保持温和状态。”

中国进口产品价格低廉，严重影响了印度当地供应商的市场竞争力。印度之桥在最近一份市场动态文章中指出：“如今印度国内面临着许多宏观问题，比如经商环境便捷度、基础设施建设、能源与金融成本、原材料与当地生态系统关系协调等等。如果这些问题无法解决，那么推动印度当地制造业发展就只能是天方夜谭。”

通过进口材料大幅进行产能建设的行为已经严重打击了印度当地的制造企业。为此，印度太阳能制造商协会向政府提议征收保护性关税及反倾销税。保护性关税可以保护当地工业免受进口激增的影响。而当海外进口商以低于市场平均价格的水平进行产品销售时，进口国家有权向其征收反倾销税。

然而这样的抗议未必站得住脚。悉尼能源经济学与金融分析研究所的蒂姆·巴克利告诉第三极：“这些落后的小型印度太阳能组件制造商的发言并没有什么可信度。早就有报道指出，这些质量欠佳的产品根本不具备市场竞争力。”

强化国内市场

然而，事情总会出现转机。巴克利表示：“我认为印度能源部长皮尤什·戈亚尔已经看清了未来发展的正确方向。比如通过适当的资本让步和鼓励措施降低建设成本，推动天合光能（Trina Solar）、阿特斯集团（Canadian Solar）、恒华集团（Hanwha Solar）和第一太阳能（First Solar）等多家全球主流太阳能电池组件制造企业与印度当地公司设立合资企业，共同在印度建设最新的现代产能设备。我记得特斯拉公司就因在内华达州建立超级电池工厂（Gigawatt）而获得了10亿美元的鼓励优惠。所以说，在鼓励新兴行业建设和消除先行者壁垒方面，无非都是这些套路，没有什么新的东西。”

清洁能源智库瓦苏达基金会首席执行官斯里尼瓦·克里希纳希瓦米认为，印度当地的工厂无法应对突如其来的需求增长，所以从中国进口电池板是不可避免的。

克里希纳希瓦米告诉第三极：“从其自身来说，印度政府的确通过限定国内供应标准为当地企业提供了一些支持。但是，关键在于印度国内制造商在能力和深度等方面存在不足。如果太阳能产业能够保持持续增长，我们希望未来还能够增加相关制造产业方面的投资。”

巴克利指出：“预计未来印度全国每年新增太阳能电池组件的需求将有可能达到1000万千瓦以上，所以印度总理纳伦德拉·穆迪希望建设多个全新电站，以便实现电力供应产业链本地化布局的‘印度制造’计划仍然大有可为。”

除非上述愿景能够及时实现，否则印度太阳能产业的迅猛发展恐怕还要依赖进口设备，尤其是来自中国的进口设备的支持。印度之桥副总监加斯米特·库拉纳告诉第三极：“目前印度的大型太阳能项目不断上马，而中国的相关设备则出现了供大于求和价格下滑，至少这个巧合在我们看来是不错的。所以我们应该积极利用这个机遇。”

India's solar dream rests on Chinese imports

India's rush to add solar power is being aided largely by a manufacturing overcapacity in China

Soumya Sarkar

The Indian solar energy sector is in the middle of unprecedented growth, fed by rapidly declining tariffs, improved technology and a global oversupply of photovoltaic (PV) panels and other material, mainly from China. Although a smaller market than China, the United States or Japan, it is expanding faster than other major nations.

India expects to add as much as 5.4 GW of new solar capacity in 2016, making it the fourth largest solar market globally. The country currently has a total capacity of 7.8 GW of solar power. In comparison, installed capacity in the United States is 25 GW. The prospect for India looks bright. "The tailwinds are exceptionally strong with rapidly falling costs and a greater environmental agenda in the post COP21 [Paris climate summit] world," Bridge to India, an energy consultancy, said in its new India Solar Handbook.

"The solar development pipeline now stands at 22 GW with over 13 GW under construction," market intelligence firm Mercom Capital Group said in their India Solar Quarterly Market Update.

This bullishness benefits from a global glut in photovoltaic equipment. "Recent market reports suggest that an oversupply situation is building up in PV module manufacturing in China, especially for the second half of 2016 and this is likely to lead to significant price corrections in the market," Bridge to India says. This has forced Chinese industry,

particularly tier II firms, to lower prices and look at overseas markets.

"Several major solar manufacturers have announced plans to expand their production capacities ahead of 2017. In total, we expect 15 GW of new module capacity to come online in 2016, across 10 major producers, with the majority (14 GW) added by Chinese manufacturers," Morgan Stanley, an investment bank, said in a report on August 2.

"It is a happy coincidence that there is a combination of large solar project announcements in India and oversupply and depressed prices of Chinese equipment"

At the same time, Chinese demand is expected to slow down sharply in the remaining part of 2016, according to market research firm IHS. The leading information provider noted that module prices for the fourth quarter of 2016 have already declined by as much as 10% since the first half. The fall in prices comes at a perfect time for the Indian solar market as the first three months of 2017 are expected to be the biggest quarter for new capacity, with additions of around 2 GW, according to Bridge to India.

The circumstance of lowered capital costs, overseas slowdown and proactive policy thrust has

not being accompanied by strengthening India's domestic manufacturing capacity. "In the absence of manufacturing, India will need to import US\$42 billion (280 billion yuan) of solar equipment by 2030 corresponding to 100 GW of installed capacity," warns a report by KPMG, an advisory firm.

India has emerged as a key growth market for Chinese suppliers, Bridge to India said in an industry update. "Unless there is a change in Chinese demand sentiment or the European Union removes its trade barriers against Chinese suppliers, we expect prices to stay soft for the next few quarters," the consultancy said.

Cheaper Chinese imports have left local suppliers uncompetitive. "It is clearly very difficult to promote domestic manufacturing in India without solving the macro issues such as ease of doing business, infrastructure, cost of power, cost of finance and local ecosystem for raw materials," Bridge to India said in a recent update.

The remarkable pace of capacity growth through imported material has hurt rickety local manufacturing firms. The Indian Solar Manufacturers' Association has asked for safeguards and anti-dumping duties. Safeguard levies seek to protect local industry against sudden import surges. Anti-dumping duties are imposed when overseas exporters are seen to be selling products below fair market value.

Their protest may not hold much water. "It would be hard for the small outdated Indian module manufacturers to throw stones with any credibility," said Tim Buckley, a director at Institute for Energy Economics and Financial Analysis in Sydney. "The quality of their product is widely reported as substandard and uncompetitive."

DOMESTIC STRENGTHENING

However, things may improve. "I think Energy Minister (Piyush) Goyal is on the right path in terms of trying to encourage global module majors like Trina Solar, Canadian Solar, Hanwha Solar and First Solar to consider joint venturing with a local established power company to build a new modern, latest technology facility in India, with appropriate capital concessions and inducements to ease the cost

of new builds," said Buckley. "Tesla received a US\$1 billion incentive to build their Gigawatt factory in Nevada, so there is nothing new in incentivising the establishment of new industries and easing first mover barriers."

The local industry cannot cope with the recent surge in demand so Chinese imports are inevitable, according to Srinivas Krishnaswamy, chief executive officer of Vasudha Foundation, a clean energy think tank.

"On its part, the government does provide some support to Indian firms by stipulating domestic supply requirements, Krishnaswamy said. "Unfortunately, the domestic manufacturing industry lacks capacity and depth. If solar maintains a sustained growth, we expect it will lead to investments in manufacturing as well."

"Given the likely 10 GW plus annual demand for modules across India going forward, there is scope for a number of new plants to be built to localise the supply chain in line with Prime Minister Narendra Modi's Make in India campaign," said Buckley.

Till that happens, it is likely that the extraordinary growth of the Indian solar energy sector will be fuelled by imports, mostly from China. "It is a happy coincidence that there is a combination of large solar project announcements in India and oversupply and depressed prices of Chinese equipment," Jasmeet Khurana, an associate director at Bridge to India said. "We should make the most of it."

海外中国企业需要“行为准则”

海外中国企业应采用自愿性可持续标准，以此提高自身形象，推动低碳发展

曹嘉涵

在中国市场上，尤其是食品行业，自愿性可持续标准正越来越多地为类似星巴克和玛氏这样的全球性企业所采用。此类标准不仅能带来商业、环境和社会回报，还能帮助中国为全球绿色经济发展设置规则，但大部分中国企业很少使用、或者根本不知道这些标准。同样的，和一些欧洲国家相比，大多数中国消费者似乎也很少意识到此类标准的存在，更别说认识到它们的重要性了。

由于中国政府决心深化国内改革，市场机制的作用得到了重视，并且有越来越多的国有和私营企业在“一带一路”倡议的鼓励之下走出国门。在这样的背景下，采用自愿性可持续标准将有利于维护中国的国家形象，确保其作为一个负责任大国的国际声誉。

标准为何重要

可持续标准为行业设置最佳实践标准，是检验全球供应链上的商品和服务是否有利环境社会发展的有效工具，林业产品和渔业可持续标准就是很典型的例子。大多数自愿性标准，如雨林联盟认证、UTZ认证以及森林管理委员会（FSC）的认证，都是由私营的多方机构或大型企业建立，成员遍布全球各地，以此吸引高价值的细分市场，进而以带动行业对一些道德问题做出反应。现如今，这些标准事实上已经成为了商界强制实施的标准，这很大程度上是受到了消费者需求的推动。

作为一支新兴力量，中国已经开始按照自己的步伐，逐步实施自愿性可持续标准。这个

国家已经越来越多地意识到，自愿性可持续标准是构成竞争力、企业社会责任以及低碳、节能繁荣新模型的基本要素。

中国虽然经验还不足，但其在可持续性认证过程方面的参与能够为全球经济转型做出贡献。《联合国2030年可持续发展议程》的执行给中国提供了一个前所未有的机会，让其能够形成自己的社会和环境标准。这一过程意在重振可持续发展的全球伙伴关系，需要北半球各国和南半球新兴国家公私各方利益相关者的一致行动。

“中国消费者，尤其是欠发达地区的消费者对可持续性的意识很低，这阻碍了自愿性可持续标准的推广”

在这样的背景之下，中国政府和商界领袖与国内外非政府组织通力合作，可共同探索有意义的方式，来建立适合中国国情并具有国际影响力的自愿性可持续标准。如果没有中国在制定可持续标准等方面的全方位积极参与，可持续发展目标（SDGs）的实现将变得更加困难。

中国国内已经出现了巨大的机遇。市场发展繁荣，高端消费者对优质食品和其他商品的需求不断增加，这些都呼吁着认证和溯源服务的出现。虽然工业和信息化部以及国家发改委等几个部门都已经出台了绿色采购和消费的官



全球环境研究所执行主任金嘉满指出中国的金融机构应该发挥更重要的环境监管作用

方指南，但将这些规定付诸实践的行动计划仍然缺失，这就给国际自愿性可持续标准填补这一缺口留出了一些空间。鉴于中国政治权利集中，民众权威意识强烈，相关国际机构如果能取得政府支持，自愿性可持续标准对消费者和企业的说服力将会更强。

中国基础设施行业的“行为准则”

中国在基础设施建设、工程和制造部门有着一定的比较优势，且正在推动全球工业能力建设的合作。鉴于现有的自愿性可持续标准大多集中于林业、农业和渔业产品，中国需要担任起领头羊的角色，在基础设施建设行业也建立起一套可持续发展行为准则。尤其是，中国应该将有弹性、可持续的原则融入重点基础设施工程的生命周期之中。

中国的“一带一路”倡议已经引起了一些环境担忧，但同时它也为建立可持续基础设施项目的共同行为准则提供了机会。这非常契合“一带一路”《愿景与行动》文件的宗旨。该文件表示，中国将强化基础设施绿色低碳化建设。赤道原则等现有的关于基础设施的国际标准目

前还没有为中国企业和银行所广泛接受，中国基础设施行业的领先企业应该和国家开发银行以及中国进出口银行合作，以现有的最佳实践为基础，摸索出一套指导可持续基础设施建设的共同行为准则。与此同时，亚洲基础设施投资银行以及金砖国家新开发银行等新兴多边金融机构也应优先考虑投资遵守此行为准则的项目。

摆在面前的还有几个重大挑战。最为突出的可能是不同地区标准的执行问题，这已经成为在中国运营的国际可持续组织普遍关注的问题。以森林管理委员会标准（FSC标准）的实施为例，中国于2013年推出本国的FSC国家指标草案，供森林管理委员会国际董事会讨论。这虽然被认为是一项积极行动，但问题依旧存在。如果和北京上海这样的大城市相比，其他省份FSC标准的实施将面临完全不同的挑战。山东省临沂市的FSC认证项目要求每户家庭划出10%的林地（约1英亩），加以保护和恢复，这一行为可能会导致家庭收入减少，因而很难执行。如何将当地农民的利益纳入这一程序并加以保护目前还有待明确。鉴于中国并未签署国

际劳工组织（ILO）公约，所以，涉及劳工权益时，FSC标准无法全面得到落实。因此，FSC标准与中国国内的法律法规可能并不相容。

除此之外，中国消费者，尤其是欠发达地区的消费者对可持续性的意识很低，这也阻碍了自愿性可持续标准的推广，这就需要地方层面推行更加有效的社区参与。更重要的是，中小型企业对供应链成本的增加极为敏感，除非大多数同行都接受，否则他们不会愿意接受新的做法。在产品和市场份额方面，仅少量中国企业拥有全球性的影响力，这也降低了其他企业执行自愿性可持续标准的动力。

尽管挑战重重，但近年来国际可持续标准团体和中国政府之间的合作已经有所加深，这一点着实令人鼓舞。为了展示自愿性标准提高企业竞争力的能力，中国国家认证认可监督管理委员会认证认可技术研究所和全球可持续标准联盟（ISEAL联盟，即全球可持续标准协会）于2016年6月22日在北京合作举办了一场高级别论坛。在这场论坛上，两个机构共同发布了《设置社会和环境标准：全球可持续标准联盟良好行为规范》的中文译本，以更好地指导中国相关方面公平、透明地设置并优化自愿性可持续标准。

Chinese companies need “code of conduct” overseas

Chinese companies building overseas should adopt voluntary sustainability standards to boost their image and drive low-carbon development

Cao Jiahua

In the Chinese market, voluntary sustainability standards, particularly for food, are increasingly being applied by global companies like Starbucks and Mars. However the majority of Chinese companies rarely use, or are unaware of, these standards, despite their potential to generate commercial, environmental and social rewards and help the country set the rules for a greener global economy. Similarly, most Chinese consumers seem to have little awareness of the application, let alone the significance, of such standards, compared to those in some European countries.

As the Chinese government has committed to deepening domestic reforms by giving more weight to market mechanisms and more Chinese state-owned and private companies are encouraged to go abroad under the “One Belt, One Road” (OBOR) initiative, voluntary sustainability standards will safeguard China’s national image and overseas reputation as a responsible power.

WHY STANDARDS MATTER

Sustainability standards, which set best practice in an industry, can be effective tools for verifying socially and environmentally friendly goods and services along global supply chains – such as for forest products or fisheries. Most voluntary standards, such as those of the Rainforest Alliance, UTZ and Forest Stewardship Council (FSC), have been set up by private multi-stakeholder initiatives or large

companies with global membership to attract high-value market segments and respond to ethical concerns. Nowadays, they have become de facto mandatory standards in a commercial sense as they are driven largely by consumer demand.

As an emerging power, China has set out to adopt voluntary sustainability standards at its own pace. The country has increasingly realised the role of voluntary sustainability standards as essential elements of competitiveness, corporate social responsibility and new modes of low-carbon, resource-light prosperity.

Despite its lack of experience, China’s involvement in the sustainability certification process can contribute to the transformation of the global economy. The implementation of the United Nations (UN) 2030 Agenda has offered China an unprecedented chance to shape social and environmental standards. This process proposes to revitalise the global partnership for sustainable development, which requires joint action from public and private stakeholders in the global North and emerging countries in the South.

Against this backdrop, Chinese government and business leaders, working with domestic and international NGOs could explore meaningful ways to develop voluntary sustainability standards that are suitable to national circumstances and have international implications. The Sustainable Development Goals (SDGs) will be harder to achieve

without China's proactive participation in numerous aspects including the formulation of sustainability standards.

Huge opportunities have emerged at the domestic level. China's booming market with rising demands from high-end consumers for quality food and other commodities calls for certification and traceability services. Although several governmental departments such as Ministry of Industry and Information Technology (MIIT) and National Development and Reform Commission (NDRC) have issued official guidelines for green procurement and consumption, there is a lack of action plans to put these into practice, which leaves some room for international voluntary sustainability standards to fill in the gap. Given China's centralised political culture and authoritative traditions, voluntary sustainability standards will be more convincing for consumers and businesses if relevant international organisations get endorsement from the government.

CHINESE "CODE OF CONDUCT" FOR INFRASTRUCTURE

China possesses certain comparative advantages in the infrastructure-building, engineering and manufacturing sectors and is driving international cooperation on building industrial capacity. Considering the existing voluntary sustainability standards are mainly focused on forest, agricultural or fishery products, China needs to take the lead in setting a common code of conduct for sustainable development in the infrastructure sector too. In particular, it should embed resilient and sustainable principles into the life cycle of key infrastructure projects.

China's OBOR initiative has raised some environmental concerns, but it also provides opportunities for developing a common code of conduct for sustainable infrastructure projects. This would fit well into the initiative's Vision and Actions, which points out that China will make efforts to promote green and low-carbon infrastructure construction. Existing international standards relevant to infrastructure such as the Equator Principles have yet to be widely accepted by Chinese

companies and banks. It is high time for leading Chinese infrastructure companies, in cooperation with China Development Bank and Export and Import Bank of China, to explore a common code of conduct for sustainable infrastructure based on best available practices. Meanwhile, new multilateral financial institutions such as the Asia Infrastructure Investment Bank (AIIB) and the New Development Bank among BRICS countries need to prioritise their investment considerations in the projects that abide by this code.

A few major challenges lie ahead. The most prominent one may be enforcing standards in different local contexts, which has become the common concern of international sustainability organisations operating in China. Taking the application of Forest Stewardship Council (FSC) standards as an example, China launched the draft of its FSC national indicators in 2013 for discussion by the FSC international board of directors. Although this is regarded as a positive move, there are still problems. For instance, in comparison with Beijing or Shanghai, applying FSC standards in other provinces will face different challenges. It remains to be seen how the interests of local farmers can be protected and included in the process. The FSC certification program in Linyi, Shandong province, requires each family to allocate 10% (about 1 acre) of their forests for protection and restoration purposes, which might reduce household income and thus be difficult to carry out. When it comes to labour rights, FSC standards cannot be fully applied since China is not signatory party to all International Labor Organization (ILO) conventions. Therefore, FSC standards could be incompatible with China's domestic laws and regulations.

Besides this, the low consumer awareness of sustainability in China, especially in less developed regions, also hinders the promotion of voluntary sustainability standards, which demand more effective community engagement at the local level. What's more, small and medium sized enterprises are extremely sensitive to increases in supply chain costs. They are reluctant to adopt new practices unless many of their peers also take action. The fact that

only a handful of Chinese companies have a global footprint in terms of product and market share also renders them less motivated to implement voluntary sustainability standards.

Despite these challenges, it is encouraging that cooperation between international sustainability standards bodies and the Chinese government has deepened in recent years. To showcase how voluntary standards increase corporate competitiveness, the China Certification and Accreditation Institute (CCAI) in collaboration with the ISEAL Alliance (the global association of sustainability standards) hosted a high level forum on June 22, 2016 in Beijing. It was in this forum that the two groups launched the Chinese translation of “Setting Social and Environmental Standards: ISEAL Code of Good Practice”, to better guide Chinese stakeholders to set and improve voluntary sustainability standards in a fair and transparent way.

中国对可持续大豆的需求或有助于遏制森林采伐

业内专家表示，通过向国内市场供应可持续产品，中国的主要食品进口商能够在抗击森林采伐过程中起到重要作用

阿达士·瓦帕戎尼

去年，中国大豆进口量创下历史新高，达到8169万吨，而十多家大型大豆贸易商的进口量就占到了四分之一。最近，这些进口商在参加一场于北京举行的研讨会时表示，有意将自身的供应链绿色化。该研讨会由中国大豆产业协会和三河汇福粮油集团有限公司联合主办。与会人员还包括来自民间社会团体荷兰禾众基金会以及旨在推进中美大豆产业可持续发展的美国保尔森基金会的代表。

中国大豆产业协会常务副会长刘登高表示，中国可能会提高拉美主要大豆出口国巴西的进口量，但他同时还强调了作物种植的可持续性。“中国不希望自己对大豆的需求导致巴西出现非法森林采伐问题，我们也正在要求供应商能够确保做到这一点，”他说。

随着新兴中产阶级肉类需求量的增长，中国不断从南美进口大豆，主要用于喂养牲畜。由于耕地面积有限、污染和干旱等问题，中国不得不外购并扩大大豆生产，这使得中国2015年大豆进口同比上年激增14.4%。来自巴西、美国 and 阿根廷的大豆分别占总进口量的49%、35%和14%。

保尔森基金会在一篇新闻稿中指出，全球温室气体排放中有24%来自商品农业和森林采伐，但中国传达出的对可持续产品的市场需求信号将会有助于推动生产者和出口商的行为改变。

2015年3月，保尔森基金会、禾众基金会、大自然保护协会和世界自然基金会共同启动了中-南美可持续大豆贸易平台，旨在提高巴西农村环境登记制度（CAR）下注册农民生产的大

豆在出口中的比重。该登记制度为巴西森林法的一部分。

然而，认证仍是一个大问题。由于大豆生产和森林采伐之间关系复杂，所以巴西政府在土地非法使用的监督执法问题上也困难重重。全球大豆市场的透明度极低，中国进口商很难确定购得的大豆是否来自非法采伐的林地。保尔森基金会环保项目总监牛红卫表示，虽然供需双方都有很多工作要做，但中国的大型食品进口商已经走到了一起，并且有意愿采取更加可持续的做法，这就是很大的进步。

“中国2015年大豆进口同比上年激增14.4%，来自巴西、美国和阿根廷的大豆分别占总进口量的49%、35%和14%”

“这是我们协助中国发挥领导作用，引领全球大豆供应链的绿色化的绝佳时机。中国政府和主要进口商对此也越来越有兴趣。”牛红卫表示。

牛红卫还强调了中粮集团前董事长宁高宁去年12月在巴黎峰会上所发表的声明的重要性。宁高宁表示，中粮集团“赞同并支持”农民以环保的方式生产粮食作物。

近来，九三集团、汇福集团、正大集团、山东香驰豆业集团以及圣泉集团等中国顶级大豆贸易商和中粮集团代表一同远赴巴西，参加“大豆产业实地调研之旅”，借此机会熟悉各自的南美供应商。2015年，上述公司的大豆进口量占中国进口总量的24.48%。

牛红卫认为不仅要鼓励中国主要商家进口以合法、可持续的方式生产的大豆，也要发挥消费者的作用：“这将是一项长期工作，”她告诉中拉对话。“我们必须提高公众意识，让他们更加明确自身作为一个消费者能够为阻止巴西森林采伐、为全球抗击气候变化做些什么。”

面对全球商品价格疲软，企业可能会更加关注成本收益。但可持续发展有利于企业保证

长期供应链，树立自己的声誉。声誉不佳可能会对企业造成严重打击，并导致项目失败。

刘登高强调了生产者和经销商之间对话的重要性：“中巴两国是天然的合作伙伴，双方有着重要商业往来。我们自然希望拉进双方关系，更好地了解进口大豆的源头。”



巴西大豆的“森林友好”程度有多高？实则难以界定。图片来源：CIFOR

China's taste for sustainable soya could help curb deforestation

Saving the Amazon will depend partly on China's soya importers greening their supply chains

Ardash Vartparonian

Major food importers from China can play an important role in the fight against deforestation by committing to supplying the domestic market with sustainably sourced products, but persuading them to deliver will be a big challenge.

More than ten big Chinese players in the international soya trade, who together account for a quarter of the country's record 81.69 million tonnes of soybeans imported last year, indicated support for greening their supply chains at a symposium in Beijing recently. But they haven't yet committed to verifiable action on using supply that has been certified as "forest friendly".

The Beijing event, co-hosted by Sanhe, HopeFull Grain and Oil Group, was organised by the China Soybean Industry Association and included representatives from civil society group Solidaridad and the US-based Paulson Institute, which promotes sustainable development in China and the US.

Liu Denggao, executive vice president of the China Soybean Industry Association, said that soya imports from Latin America's main exporter, Brazil, would likely rise, but emphasised that the crop should be sustainably sourced.

"We do not want our demand for soya to lead to illegal deforestation in Brazil, and we are asking our suppliers for assurance in that respect," he said.

Growing demand for meat from China's new middle classes is driving the growth in South American soya imports, which are used principally to feed livestock.

Due to limited arable land, pollution and drought, China has been forced to outsource and expand soya production, prompting Chinese soya imports to shoot up 14.4% year-on-year in 2015. Brazil accounts for 49% of the total, with 35% coming from the US and 14% from Argentina.

Commercial agriculture and deforestation account for 24% of global greenhouse gas emissions, but China signalling a market demand for sustainable products would help drive behavioural change among producers and exporters, the Paulson Institute said in a press release.

"We do not want our demand for soya to lead to illegal deforestation in Brazil, and we are asking our suppliers for assurance in that respect"

In March 2015 the Paulson Institute, Solidaridad, The Nature Conservancy, and WWF launched the China-South American Sustainable Soya Trade Platform, aiming to increase the proportion of soya sourced from Brazilian farmers registered with Brazil's Rural Environmental Registry (CAR in Portuguese), part of Brazil's Forest Code.

However, certification remains a big problem. The Brazilian government has struggled to monitor

and enforce punishments for illegal land use, as the relationship between soya production and deforestation is complex. There is little transparency in international soya markets, and so it is very difficult for Chinese importers to work out whether their soya is coming from forest friendly sources or not.

But while there is much to do on both sides, the fact that big Chinese food importers have come together and shown a willingness to adopt more sustainable practices is a marked step forward, said Rose Niu, chief conservation officer at the Paulson Institute.

“We have a great opportunity to help China take a leadership role on greening global soya supply chains, something that is of increasing interest to the Chinese government and key importers,” Niu said.

Niu also highlighted the significance of former COFCO chairman Ning Gaoning’s declaration at the Paris climate summit in December last year that his company would ‘endorse and support’ farmers producing crops in environmentally friendly ways.

Along with COFCO, other top soya traders Jiusan Group, Hope Full Group, CP Group, Shandong Scents and Shengquan recently took part in a ‘soya industry fact-finding trip’ to Brazil to familiarise themselves with their South American suppliers.

Together, these companies accounted for 24.48% of China’s total soya imports in 2015.

Besides encouraging major players from Chinese business to source legally and sustainably produced soya, consumers also have a role to play, Rose Niu said.

“This will be a long-term effort,” she told *Diálogo Chino*. “We need to work on raising awareness among the general public, so they understand better what they can do as consumers to help stop deforestation in Brazil and contribute to the global effort to fight climate change.”

Tumbling global commodity prices will likely sharpen companies’ focus on how they manage costs, but committing to sustainability could help them secure long-term supply chains and improve their reputations. A poor environmental record can cost companies dearly and lead to projects collapsing.

Liu underscored the importance of dialogue between producers and distributors: “China and Brazil are natural partners and have an important commercial relationship. Naturally we want closer relations and to know better the areas where the soya we import comes from.”

中国应该让环保标准也“走出去”

专家认为，推动“一带一路”战略实施，规避企业海外投资风险，中国应当设置海外投资环保标准

刘琴

全球环境研究所（GEI）执行主任金嘉满在接受中外对话专访时提到，随着“一带一路”战略的铺展，以及中国正成为对外投资大国的新局面，环保标准如果不跟着“走出去”，中国的海外投资项目将会面临环境带来的投资风险。

“一带一路”分别指的是丝绸之路经济带和21世纪海上丝绸之路，贯穿亚欧非大陆。是中国高层于2013年开始推动的国家战略，沿线涉及60多个国家。

中外对话（以下简称“中”）：中国国内经济发展进入新常态，海外投资这两年来有没有出现新的变化或趋势？

金嘉满（以下简称“金”）：中国海外投资情况比起十年前，确实出现了新的变化。以前中国海外投资的地区和国家主要集中在资源丰富的国家，或者环境治理水平较低的国家，大宗商品贸易常常处于商业链的中下端，例如：林产品贸易，我们更多的是砍伐和初加工。但目前看来，正在改变。矿业开发和资源行业的海外投资比例出现了下降，正在向多元化和高端化发展。

随着中国经济结构转型，发展速度放缓，中国正在从高耗能、高污染、高排放产业和高资源消耗的低端产业发展，转型为中高端的、服务型的产业行业。国家的绿色经济发展理念和目标，需要新的科学技术。在发达国家的投资不但能带来经济效益，而且可以借鉴更高的环境标准，规避投资的环境风险。

中：中国正在实施“一带一路”战略，沿线国家对此持什么态度？

金：据我所知，“一带一路”战略提出来后，很多国家希望中国去帮他们发展经济，但同时又有很多顾虑和担心。一方面是担心他们会像中国那样，在经济获得发展的同时付出巨大的环境代价，中国现在面临严重的空气污染、水污染等环境问题全世界皆知。另一方面，中国在海外投资过程中出现的一些问题给他们留下了不好的印象。例如在缅甸投资水电站项目，2011年项目被缅甸政府叫停，到现在还没有妥善解决。当地有人认为该项目会对自然环境、民众生活、文化遗产造成破坏，项目最后不得不搁置。该项目也成为中国海外投资众所周知的一个典型案例。

中：企业出去投资，如何防范有可能带来的环境风险？

金：企业的主业是获得经济利益，环保只是他们的副业，企业为降低成本，对于环保标准往往是“就低（标准）不就高（标准）”。

如果是去发达国家投资，由于他们的环境标准比中国高，环境治理比较规范，有法可以，投资企业相对面临的环境风险也较小。如果是去发展中国家投资，环境治理比较低，企业实施当地较低的环境标准，出现的风险相应也会增加，出现了问题还是损害中国政府、中国国家形象，特别是政府间项目。

中：有没有机制上的改进空间？

金：随着“一带一路”战略的开展实施，海外投资项目也会越来越多。以前在“走出去”的过程中，参与的政府部门只是外交部，后来商务部也参与进来，现在环保部是不是也要考虑走出去，或者说环保标准要不要走出去？

对于走出去的企业，能不能制定一个海外环保标准，帮助企业了解和熟悉相关规定。去发达国家投资，可以按照当地标准；去环保标准不高的国家投资，设置一个中国海外投资标准或者以中国国内的环境标准作为约束。比如说，排放的水要达到什么标准才算合规，起码不能影响当地人的健康。一旦出现问题，无论是企业还是做环评的机构和个人，都应该被追责，有标准依据可查，这样才能真正减少投资的环境风险。

中：目前中国的投资金融机构如何看待、处理海外投资项目中的环境风险？

金：中国高层已经意识到金融机构在经济发展和环境中能够发挥重要作用。9月初在杭州召开的G20峰会首次将绿色金融纳入议题。所谓绿色金融，就是指金融部门把环境保护作为一项基本政策，在投融资决策中考虑潜在的环境影响。

但我们平时在与一些金融从业人员交流时发现，他们还是认为环保是环保部门要做的事，金融机构主业是如何收回贷款。所以说，虽然上层领导人已经对环保问题重视起来了，但在操作过程中还有很大距离。中国目前的海外投资项目，环保要求还没有进入投资、信贷的工作流程中。只有将环保要求纳入工作流程和程序，变成审批通过的条件，企业和出资方才会真正重视环保问题。同时，项目的环保信息和措施也应该公开，更好地便于监督和追责。

中：能否以GEI为例，谈谈NGO在“走出去”过程中怎么发挥作用？

金：NGO在企业走出去过程中，能提前做研究，遇到问题召集利益相关方，起到协调的作用。因为NGO是一个独立、中间的社会力量，在帮助企业与社区居民和政府部门交流的过程中起到桥梁作用，在出现矛盾或冲突时，协助多方商讨来解决问题。

2005年在莫斯科一个国际会议上，我们听到很多国家指责中国乱砍乱伐别国的森林。回国后，我们多次跟国家林业局交流信息，商讨解决问题的方法。两年后，经国家林业局高层批准，和商务部联合出台了《中国企业境外可持续森林培育指南》。

2007年，国际上对中国企业在海外的资源型开发项目，包括矿业、水电项目实施过程中的生态影响有很多议论，我们就找到中国的商务部、环保部，商讨规范企业环境行为的方法，规避投资风险。

中国企业去一个人生地不熟的地方投资承担的风险很大，它们也希望NGO能提供信息，预知风险。我们在云南主办了一次企业培训，介绍投资国所在地的相关政策法规，以案例的形式分析以往项目成败的原因，以改善和提高中国海外企业环境社会行为，让企业看到，开展负责任投资不仅有利于投资国，更有利于降低投资风险。在走出去历程中，NGO发挥的作用是不可替代的。

How to build environmental protection into ‘New Silk Road’

Jin Jiaman of GEI suggests ways to improve environmental protection in China’s One Belt, One Road infrastructure projects after the ‘green finance’ gets backing from G20 leaders in Hangzhou

Liu Qin

G20 leaders called for “Green Finance” policies to be “scaled up” at their Hangzhou summit in September, and for more work to be done on co-ordinating national standards so that environmental risks are at the heart of infrastructure loan decisions.

China’s reputation as a major overseas investor and the credibility of its vast “One Belt, One Road” (OBOR) infrastructure plan will suffer unless Chinese firms follow environmental policies, Jin Jiaman, executive director of the Global Environment Institute, tells *chinadialogue*. She also suggests practical measures China’s government can take to guide firms’ activities overseas.

The OBOR development strategy envisages a giant web of infrastructure criss-crossing more than 60 countries, weaving them more tightly together, and will affect China’s global reputation for decades.

chinadialogue (CD): How do you think “One Belt, One Road” countries view the strategy?

Jin Jiaman (JJM): Many countries hope China will help them develop economically. But there are also plenty of concerns. They worry they’ll end up – like China – paying a huge environmental price for economic development. The whole world knows about China’s air and water pollution. There’s also a negative impression created by some problems China has faced with earlier overseas investments. For example, Myanmar’s government halted the

Myitsone hydropower project on the Irawaddy in 2011. Local people thought the dam would harm the environment, their livelihoods and their cultural heritage. The situation hasn’t been resolved and the project has had to be shelved. It’s become well known as an example of China’s overseas investments.

CD: What can Chinese companies investing overseas do to protect against environmental risks?

JJM: The risk is that Chinese companies will apply the lowest possible environmental standards to keep costs down, as their core business is always to make a profit. The environment comes second.

“Chinese companies take on a lot of risk when they invest in an unfamiliar location, and they are keen to see NGOs provide information and warn of risks”

When Chinese firms invest in developed nations, there is a legal framework and environmental standards and governance are tougher than in China, so the risks are less. But in developing nations, Chinese companies can apply lower, local environmental standards and governance is weaker.

However, any problems will hurt China’s government, national image and inter-governmental projects.

CD: Is there scope for improved mechanisms?

JJM: Previous overseas investment drives involved only the Ministry of Foreign Affairs, and later the Ministry of Commerce. Should the Ministry of Environmental Protection now be included? Should China set environmental standards for overseas investment to ensure companies know the rules? In other words, should we also be exporting our environmental standards?

China could draw up specific standards for investments in developing nations, or apply China's own domestic standards. For example, wastewater – what standards should there be? At the very least it shouldn't harm local people's health. When problems arise someone should be held to account – the company, individuals or the environmental impact assessment providers. There should be standards to refer to. This is the only way to reduce the environmental risks of investment.

CD: What approach do China's financial lenders take to environmental risks now?

JJM: China's leadership are already aware of the role financial bodies can play in economic development and environmental governance. "Green finance" was on the agenda for the first time at the G20 summit in Hangzhou on 4th-5th September, and the G20 leaders' communiqué supported more work being done. "Green finance" means financial authorities should be making environmental protection a fundamental goal, and a benchmark for funding decisions.

Even though top politicians are taking environmental protection seriously, there's still a long way to go in practice.

We find financial sector staff still view environmental protection as a matter for the environmental authorities: they see financial bodies as responsible only for ensuring loan repayments.

Environmental protection still isn't a factor in investment and in the decision-making processes for lending on overseas investments. If the company and the funder are going to take environmental protection seriously then environmental standards have to be part of the processes, a condition of approval. There should also be transparency of

environmental information and measures, to facilitate oversight and accountability.

CD: What role can NGOs like yours play, and what has GEI done?

JJM: NGOs can do preliminary research, and when issues are identified they can gather stakeholders together and act as coordinators. Because NGOs are independent intermediaries, acting as a bridge between companies, communities and the government, they can help them discuss possible solutions when conflicts arise.

At an international conference in Moscow in 2005, GEI heard many countries complain about China's excessive logging activities overseas. On returning to China, we discussed possible solutions with the State Forestry Administration. Two years later, with SFA leadership approval, GEI and the Ministry of Commerce published the Guidelines for Sustainable Forestry Management for Chinese Companies Overseas.

In 2007, there was international controversy over the environmental impact of China's overseas investments in the resources sector, such as mining or hydropower. We spoke with the Ministry of Commerce and the Ministry of Environmental Protection about ways to standardize corporate environmental behaviour and avoid investment risks.

Chinese companies take on a lot of risk when they invest in an unfamiliar location, and they are keen to see NGOs provide information and warn of risks. We ran a corporate training session in Yunnan province that explained the policies and laws of host nations and using case studies to analyse the success or failure of earlier investments. It was aimed at helping Chinese companies to realise that responsible investment doesn't just help the host nation – it reduces investment risk. NGOs have an essential role to play in overseas investments.

书评：《非洲养活中国？》

世界顶尖中非关系专家的最新著作揭穿了关于中国在非洲投资的种种流言，并描绘了中国投资者的“心理”

翁晓雪

美国华盛顿·霍普金斯大学高级国际问题研究院教授黛博拉·布罗蒂加姆是研究中国在非洲活动的顶级专家，她的最新著作以学者式的严谨，探讨了关于“圈地”及未来非洲农业发展等问题的激烈争论。对于所有那些关注中国在非洲日益扩大的影响力的人来说，这本书都非常值得一读。

布罗蒂加姆的这本书不止是“终结流言”，还对中国投资者所经历的种种艰辛进行了描述，更广泛地体现了中非关系。对想要在围绕中国在非洲发展过程中所发挥作用的激烈争论中发表主张的人来说，这本书不可错过。

传达事实

首先，这本书纠正了媒体、NGO报告和某些学术文章中广泛流传的关于中国在非洲农业投资的四大传言：

1. 中国在非洲农村地区已经获得了面积广阔的耕地；
2. 这场“圈地”运动是中国政府的战略优先事项，通过国有企业和国家政策性资金精心策划；
3. 中国在非洲的农业投资是为了给本国提供粮食；
4. 有大批中国农民计划移居非洲。

布罗蒂加姆和她的研究团队经过数年艰苦的实地调查，收集了翔实的证据，揭示了所谓中国在非洲“圈地”神话的事实，并描绘了中国在非洲活动中那些真人真事。以刚

果民主共和国（刚果（金））为例，媒体报道说中国投资者在这里“攫取”了300万公顷土地，占该国耕地的一半。事实上，刚果（金）政府只给中国投资者提供了一片位于赤道省森林深处的200公顷土地作为油棕种植园，这里仅通过刚果河与外界相连。在经历了七天乘船溯流而上、沿途遭遇无数沙洲之后，中国投资者认为这个项目在经济上完全不具可行性，果断地放弃了投资。

这个例子表明，现实情况与普遍的看法有着天壤之别。

这本书最大的成功之处在于对中方情况的刻画。布罗蒂加姆以娴熟的笔触发出了中方的声音，同时也从多个非洲视角反映了当地社区、体力劳动者、NGO和政府的看法，让读者看到了一个更加完整的故事。

同样地，布罗蒂加姆也探讨了枯燥的政策问题——中国政府是否计划把非洲变成自己的粮仓，为此她对中国在这一领域的无数政策变

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迁进行了详尽的描述和分析。对这个问题，答案是“否”，至于背后的详情，可从书中寻获。

不止“揭穿流言”

对于外行读者来说，这本书或许让他们了解了不少趣事，并用更有判断力的眼光来看待中国在非洲的农业投资活动。但是，这本书带给我们的远不止这些。书中的描述体现了作者深刻的洞察力，这对理解更广泛的中非关系至关重要。作为一位在伦敦智库工作，长期从事中非可持续发展研究的中国人来说，我认为这些建立在事实证据之上的观点有助于国际发展界和非洲NGO更有效地与中国政府和商界进行接触。

书中有三点尤为值得注意：非洲各国政府所发挥的关键作用；中国商业社会内部千差万别；中国企业为什么会在非洲做出错误的投资设想和决定。

非洲的政府及机构，中国的多样性

布罗蒂加姆详细阐述了非洲各国政府在投资协议达成过程中所发挥的重要作用。以莫桑比克为例，与中国和其他农业投资者进行接洽的是该国农业部的最高官员。一项新研究表明，国家和地方的政府精英在大型土地收购中发挥关键作用，布罗蒂加姆在书中指出在与中国相关的土地收购中情况的确如此。

另一个关键问题是中国的现有投资形式多种多样，从对外援助到技术援助，从国有企业到私营投资者，书中强调必须对中国在非洲的行为主体进行详细区分。非洲的决策者和民间组织也应该运用针对性的策略来与不同类型的投资者打交道，以保证其对当地环境和社会的积极影响。

中国投资者的心理

最后，从中国在非洲投资者的期待和挑战中，读者开始认识到一个非常明显又常常被忽视的问题：许多中国投资者天真地认为非洲的投资环境和中国一样。如果说中国企业表现出一种对土地权利问题相对较低的意识，只是因为这在中国国内“根本不是事儿”，强大的地方政府会把土地移交给企业，几乎看不到任何农民的反。结果，这让中国投资者在贝宁和莫桑

比克等国受到了深刻的教训。同样，布罗蒂加姆还指出，中国投资者在非洲把农村“废地”变成肥沃农田的热情，也是对上世纪80年代初中国土地复垦运动的折射。

我在东非进行实地考察的时候也遇到了几位中国投资者，他们认为自己通过对“荒地”开发利用，为当地社区的发展做出了巨大贡献。但是，当地环保部门和一部分NGO组织却批评这企业忽略了湿地的价值，开发会造成环境影响。

如果非洲和国际民间团体组织打算进行建设性的沟通交流，至关重要的一点是要理解中国投资者的这些心理，以及他们为什么在敏感的社会和环境问题上做出这些选择。

促成建设性对话

我在工作中曾经遇到过无数非洲和西方记者以及NGO组织的工作人员。由于缺乏沟通，他们对中国投资者抱有偏见。反过来，我也遇到过很多中国投资者，他们在中国时不习惯与媒体和民间团体打交道，认为打交道的结果只会招来西方无理的批评，目的就是要把中国企业赶出非洲。书中描述了这种错误的媒体报道只会让误解日益加深。

我亲眼目睹过在可靠事实和公正研究的基础上，中国与非洲各国政府、NGO组织及商业行为体之间可以形成建设性对话和合作。对于我本人这样一个非洲发展研究者和从业者来说，布罗蒂加姆这本书的真正价值在于她成功地对这个关键的认知打下了基础，并且拉近了双方的关系。

对于那些想要了解中国在非洲的活动及其对非洲发展意义的记者或NGO工作者来说，布罗蒂加姆的这本新书，以及她的《龙的礼物：中国在非洲的真实故事》和她的博客，都是不可错过的必读材料。

Book Review: Will Africa feed China?

The latest book by the world's leading expert on China in Africa debunks the myths and presents the human side of Chinese investors

Weng Xiaoxue

Engagingly written with scholarly rigour, the latest book from Deborah Brautigam – a professor at the School of Advanced International Studies in Washington, DC and one of the leading experts on China in Africa – is an essential read for those concerned with China's growing presence in Africa, the charged debate on 'land grabbing' and the future of Africa's agricultural development.

But Brautigam's book offers more than myth-busting. The collective stories of hardships experienced by Chinese investors illuminate the broader China-Africa relationship, making it a must-read for anyone who wishes to stake a claim on the charged debate on China's role in Africa's development.

GET THE FACTS RIGHT

First, the book challenges four widespread beliefs about Chinese investment in Africa's agriculture circulating through the media, NGO reports and academic writing:

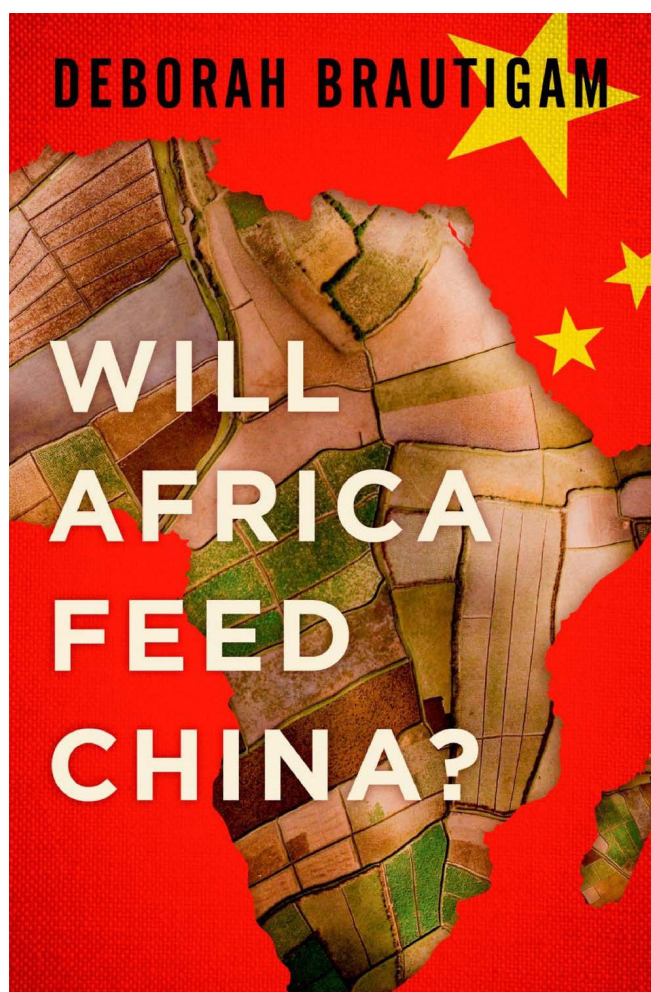
1. The Chinese have acquired large areas of farmland in rural Africa;
2. This "land-grabbing" is orchestrated by the Chinese government using state-owned companies and funds with strategic priorities;
3. China invests in Africa to feed the Chinese people; and
4. A large number of Chinese farmers plan to settle on the continent.

Brautigam debunks these myths by presenting meticulous evidence – collected over years of painstaking fieldwork by the author and her research team – and the human stories behind China in Africa. Take the case of the Democratic Republic of Congo, where Chinese investors were reported by media to have grabbed 3 million hectares – half the country's cultivated land. In reality, the Congolese government only granted 200 hectares for an oil palm plantation deep in the forests of Equateur province, where the Congo River is the only link to the outside world. After travelling by boat for seven days up the river and encountering numerous sandbars blocking their way, the Chinese investors concluded it was not economically viable and promptly halted the project.

This case shows the reality on the ground is staggeringly different from conventional wisdom.

The key success of the book lies in its portrayal of the Chinese side of the story. Brautigam skilfully presents Chinese voices along with a diverse range of African perspectives (local communities, manual labourers, NGOs and government), building the more complete story readers deserve.

With similar elegance, the author also tackles the dry policy question – whether the Chinese government has masterminded a plan to convert Africa into China's breadbasket – by detailing the numerous Chinese policies shifts in this field. The quick answer is no, but read the book for greater nuance.



BEYOND MYTH-BUSTING

The uninitiated reader may come away with entertaining stories and a more critical lens through which to analyse stories about Chinese agricultural investment in Africa. Yet, the book offers much more than that. The stories that emerge offer insights critical to understanding the broader China-Africa relationship. As a Chinese person working for a London-based development think tank, I believe these evidence-based insights can help the international development community and African NGOs engage more effectively the Chinese government and businesses.

In particular, three points are noteworthy: the key role played by African governments; the diversity within the Chinese business community; and why Chinese businesses make the wrong assumptions and decisions about their investment deals in Africa.

AFRICAN AGENCY, CHINESE DIVERSITY

Brautigam details the critical role African governments play in facilitating investment deals. In the case of Mozambique it was top officials at the Ministry of Agriculture who approached the Chinese and other investors to help modernise the country's agricultural sector. A new wave of research shows the key role of national and local elites in large-scale land acquisition – and the author shows that this holds true in the Chinese-linked deals.

Another key theme is the diversity within the existing portfolio of Chinese investment. From foreign aid and technical assistance, and from state-owned enterprises to private investors, the book demonstrates the need to differentiate between Chinese actors in Africa. African policymakers and civil society organisations should use targeted strategies to hold different types of investors to account and ensure positive environmental and social impacts on the ground.

CHINESE INVESTORS' PSYCHE

Finally, from the accounts of the expectations and challenges of Chinese investors in Africa, the reader starts to understand an obvious but often neglected point: Chinese investors innocently expect Africa's investment environment to mirror that of China. If Chinese businesses show a relatively low level of awareness of local land rights issues, this is because this is not a concern back home, where powerful local governments deliver the promised piece of land without dissent from Chinese farmers. As a result, Chinese investors faced a steep learning curve in countries such as Benin and Mozambique. Similarly, the author shows that Chinese investors' zeal to transform rural "wasteland" into productive land mirrors the national land reclamation project in China in the 1980s.

"The reality on the ground is staggeringly different from conventional wisdom"

In my own fieldwork in East Africa, I've met Chinese investors who believe that they have contributed to local development by using such land. But the local environmental authority and NGOs criticised the companies for cultivating wetlands with significant environmental value.

Understanding the psyche of the Chinese investors - and why they make certain choices in relation to sensitive social and environmental issues - is invaluable for African and international civil society if they want to move toward constructive engagement.

BUILDING A CONSTRUCTIVE DIALOGUE

In my own work, I have encountered numerous African and Western journalists and NGO workers who hold biased assumptions about Chinese investors due to a lack of communication. In turn, I have seen Chinese investors, unused to dealing with press and the civil society in China, who believe that opening their door will only invite unreasonable western criticism driven by a desire to oust China from Africa. The erroneous media reporting described in the book only deepens these misunderstandings.

I have seen how constructive dialogue is possible among African and Chinese governments, NGOs and business players if built on solid evidence and unbiased research. For a development researcher and practitioner like myself, the real value of Brautigam's book is that she succeeds in building this critical knowledge base and bringing the two sides a step closer together.

Together with her first book "the Dragon's Gift" and her popular blog, the author is essential reading for any journalist or NGO practitioner wishing to stake a claim on China's engagement in Africa and what it means for Africa's development.

