

国际协作，共建可持续的未来：中英经济脱碳合作机遇

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执行摘要

中英两国已经开始为经济脱碳做出重大努力，这为两国加强合作提供了新机遇。这份报告阐述了加强脱碳合作的支持依据，并找出了脱碳合作的关键领域。

背景

目前，化石燃料占据**能源生产**的绝大部分。尽管可再生能源已开始能在生产成本上与化石燃料一竞高低，但最大的挑战仍然在于可再生能源的效率以及对现有电力系统的适应性。

交通运输排放占全球排放量的 15%。尤其在考虑到对开发新能源系统、建设充电基础设施以及重新设计城市系统的重大需求时，汽油柴油车替代品的成本依然居高不下。

全球排放量中有 18.4%来自于**工业**。虽然能够通过电气化和碳捕集、利用和封存（CCUS）来降低排放，但主要挑战在于对所需技术的开发。

农业占全球排放量的 11%，但土地使用的变化，尤其是森林砍伐，也会对气候产生影响。

经合组织估计，要实现 2030 年气候和发展目标，每年需要花费 6.9 万亿美元。公共**融资**将覆盖其中的一部分，此外还需要发展私营部门融资。

中国前景展望

中国面临的主要挑战将会是把能源生产从化石燃料（特别是煤炭）转向可再生能源。最具可能性的替代方案将会是在中国已较为成熟的太阳能，以及风能。

中国对先进制造业的宏图壮志将能为工业生产引入“绿色”技术创造机会。随着中国在提升关键行业竞争力的道路上不断前进，已经发展起来的中国新能源汽车行业将具有重要意义。

中国在绿色金融的许多做法上也处于领先地位。这将是中国对内向低碳经济过渡以及对外建设绿色“一带一路”倡议的重要工具。这将帮助中国降低基础设施发展对气候的影响，同时也将帮助中国支持发展中国家实现经济可持续发展。

英国前景展望

根据英国全方位的“绿色工业革命的十点计划”（Ten-Point-Plan for a Green Industrial revolution），其最大挑战同样是能源生产向可再生能源过渡。英国的目标是对英国已经相当成熟的海上风能进行大量投资，以及开发氢燃料等低碳燃料。

在交通运输方面，英国已下令从 2030 年起禁售新汽油柴油车，并将为新能源汽车和充电基础设施方面的创新提供支持。

英国还计划促进发展绿色基础设施、CCUS 创新和环境保护。该计划亦高度关注绿色金融，以求动员英国资本市场和金融行业来支持脱碳和经济增长。

建议

驱动绿色金融的全球可及性和质量

发展创新型融资模式，加深资本市场与具有商业可行性的可持续投资之间的联系，将能极大促进脱碳工作。要实现向低碳经济过渡的许多策略，资本的获取至关重要。中英两国还应通过探讨气候目标以求“绿化”两国的经济财金对话。上述其他建议应纳入下一次经济财金对话以及中英参与的其他对话。

探索国际碳市场的发展

中英两国应将各自国内正蓬勃发展的全国排放权交易计划相互联动，这可降低减排成本，增加市场流动性，稳定和协调价格，并为全球碳市场发展提供支持。

鼓励自愿碳市场还将帮助企业实现碳中和，因为大规模的自愿市场将对于实现《巴黎协定》的目标具有重要意义。

合作发展绿色全球基础设施

中英联合发布的《“一带一路”绿色投资原则》旨在协调绿色基础设施标准，促进绿色金融产品在基础设施发展中的使用，并减少“一带一路”倡议的排放量。

中英在可持续基础设施方面的合作不应仅限于政策层面的讨论，还应包括专业知识的共享以及对商业伙伴关系的支持。

创新合作

中英两国都致力于对各自国家可持续发展战略的创新，而中国是与英国进行协作研究的第三大伙伴国家。

中国在推广技术上市方面的往绩与英国在发现科学和早期研发方面的专业知识高度互补，这为两国开展联合研究提供了绝佳机会。

前言

目前，国际社会所面临的最重大挑战，是我们急需采取行动应对气候变化。要调整人类行为来保护自然环境，以实现可持续发展的未来，就需要作出重大改变，而这些改变将对人们工作、贸易，以及最终繁荣发展的方式带来广泛的影响。

中国、英国等越来越多的主要经济体都做出了净零排放的承诺，这十分值得欢迎且令人鼓舞；而现在，我们需要开展大量工作来确定实现这些承诺所需的措施，并付诸实践。要实现这些目标，除了国家层面的努力外，双边和多边合作也将是不可或缺的。

这份报告的出版正值英国、中国以及国际社会其他成员一同为 COP15 和 COP26 重要会议做准备的重要时刻，也反映了亚洲之家对可持续发展的重视。希望报告建议能为中英两国在合作实现脱碳、合作指导和带领相关工作上，提供有益提示。

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亚洲之家主席

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这份报告探讨了中英两国在脱碳方面开展合作的机会，并就如何实现脱碳合作提出了建议。报告将先概述背景，然后研究两国的净零排放承诺以及为实现这些承诺所采取的策略。报告还将着重指出两国在实施各自脱碳计划时面临的一些主要挑战。

报告将通过提出五项关键建议，勾画两国合作愿景，找出脱碳合作的关键领域，从而为脱碳争取更广泛和深入的参与。

第一部分：背景

过去 12 个月里，包括中国在内的几个主要经济体就气候行动做出了高级别承诺。习近平主席在 2020 年 9 月的联合国大会一般性辩论上宣布，中国将力争在 2030 年前达到碳排放峰值，在 2060 年前实现碳中和。继英国、欧盟及其成员国等其他主要经济体后，日本和韩国也已承诺在 2050 年前实现碳

中和，其中许多国家都已将有关承诺载入法律。

英国于 2019 年通过立法，要求本国到 2050 年底前实现碳中和；此后，为支持其承诺，英国再次进行了重大宣布。2020 年 12 月，英国宣布，到 2030 年，其碳排放水平要比 1990 减少至少 68%。同时宣布的还有一项分为十点的计划，其中包括了能源生产、交通运输、制造、基础设施开发和可持续金融工具。

预计在 2021 年 11 月的《联合国气候变化框架公约》第 26 次缔约方会议（COP26）之前，大多数国家将公布各自的国家自主决定贡献方案，以及他们计划如何实现目标的路线图。在 COP26 会议上，技术性讨论和高级别讨论都将旨在推进目标，商议具体领域相关的承诺（例如逐步淘汰煤炭的使用），并且建立联盟来采取有针对性的行动（例如建立可持续融资框架）。

挑战

向低碳经济的过渡可能是迄今为止各国面临的**最大经济挑战之一**。即使是在最乐观的情况下，由极端天气事件、干旱、海平面上升、迁徙等气候变化的后果而驱动的系统风险也会大大增加。这种过渡将影响各行业的运作方式以及人们出行、消费、饮食和生活的方式。实现这种过渡将需要监管与对自主行动持续施压相结合。不过，这种过渡也能带来实现企业效率、经济增长，创造就业机会的重大机遇，还能给人类健康和生物多样性带来益处。

目前，化石燃料占据**能源生产**的绝大部分。尽管可再生能源已开始能在生产成本上与化石燃料一竞高低，但最大的挑战仍然**在于可再生能源的效率以及对现有电力系统的适应性改造**。

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经合组织估计，要实现 2030 年气候和发展目标，每年需要花费 6.9 万亿美元。公共融资将覆盖其中的一部分，此外还需要发展私营部门融资。

这其中也存在着政治挑战。总体来说，发达经济体和工业化进程中国家之间在对削减全球排放量的贡献上存在着差异。但是，除非所有国家都采取行动，否则我们无法应对全球气候变化。因此，帮助发展中国家和中等收入国家是《巴黎协定》和缔约方会议议程的一个重点。

气候承诺也将对经济竞争力造成影响。过去几年里出现了一个重大转变，各企业的环境状况对政府以及消费者和投资者来说越来越重要。许多企业都在自愿采取重大措施来降低和抵消他们的价值链对环境的影响。

但是，人们对有关遵守严格环境法规的公司是否能与从环境法规更为宽松的市场进口的产品竞争这一问题有着合理关切。对此，欧盟的回应是，计划在

2021 年提出“碳边境税”（碳边境调节机制 Carbon Border Adjustment），旨在为遵守欧盟排放交易体系（EU ETS）和其他环境法规的本地公司创造一个公平的竞争环境。

这种方法强调了在国际层面上进行协调的迫切需要，尤其是贸易伙伴对国内环境法规的处理。在全球化经济中，应对气候变化的斗争必须成为全球性的努力。

第二部分：脱碳战略

中国

根据目前的发展轨迹，中国的2030年峰值排放目标还算轻松，但2060年的碳中和目标却非常宏大。这要求在未来四十年里对中国经济和能源结构进行根本性调整，而这将对全球经济产生深远影响。

政策方向

关键部门

能源：从煤炭转向可再生能源

发电几乎占中国碳排放的一半，而且高度依赖化石燃料。迈向净零的最重要一步是在未来四十年里几乎完全淘汰化石燃料电站，并以光电、风电（二者已具有可媲美煤炭的成本优势）替代，以核电、水电为辅。

尽管有这样的投资计划，化石燃料在中短期内仍具有重要作用。煤炭支持着就业和能源安全，而天然气是改善空气质量的重要桥梁燃料。大量资金将用于为新旧化石燃料发电厂配备碳捕集与封存（CCS）技术。

工业：“绿色制造”的兴起

工业排放（不包括发电）占中国碳排放量的30%以上。政府将推动排放密集型行业（如钢铁、水泥、铝、石化、造纸和玻璃）的积极脱碳。

短期内，这些行业现有的电气化计划可能会加速，同时采取监管措施，促进对能源效率和CCS的投资。长期来看，在迅速发展的国内碳市场的推动下，产业升级和经济结构调整应能大大减少重工业的碳排放。

未来数年到数十年间，绿色制造政策将推动对设备升级、能源监控及管理系统、智能技术，以及用于电站内部发电和供热的CCS的需求。

交通运输：力争新能源汽车主导地位

交通运输排放占中国碳排放量的10%。这一行业的脱碳工作重点将继续集中在新能源汽车和相关基础设施上，以改善城市空气质量并减少对国外石油和内燃机技术的依赖。政府的目的是，到2025年，新能源汽车在新车销量的占比从现在的5%上升到25%。

目前政府也在支持氢燃料电池汽车产业集群的发展，而且还将推动航空、物流、海运和城市智能交通网络对低碳解决方案的采用。

绿色建筑和基础设施

没有更可持续的城市化方法，中国就无法实现其气候目标。中国已经出台一系列旨在使城市和建筑脱碳的政策。除了在使用可持续施工材料和工艺方面的严格标准外，政府还正在制定相关的融资机制，以确保相关标准的成功实施。

“十三五”规划（2016-2020年）通过将低碳城市项目扩展到100多个城市，

支持了绿色城市发展。2020年启动的“新基建”倡议对此给予了支持，该倡议旨在动员公共及民间资本参与支持低碳发展的基础设施建设。

政策工具和横向政策

碳定价：迈向国家排放贸易

中国在区域试点的基础上，于2021年1月启动了全国碳排放权交易系统，作为碳定价的主要工具。目前，它仅涵盖发电行业，而且实行的成本激励措施相对较薄弱。预计它将扩大到涵盖钢铁和石化等更多领域，并以其他的市场手段作为补充，例如资源税、排放费和燃油税。

本土创新

强有力的行业政策将支撑中国为减排和开拓海外高增长清洁技术市场所做的努力。政府将通过包括补贴、研发激励措施、国家支持的风投基金在内的各种渠道，投入大量资源，打造国家低碳领域的领军者。国有企业肩负着开发可再生能源、新材料和储能方面的世界一流解决方案的任务。

绿色金融

中国政府认为，绿色金融对于为中国的低碳转型筹集和引流资金来说至关重要。这方面所需的资本投资每年约为 1 万亿美元，而政府只能覆盖其中一小部分。

过去五年里，中国在制定标准、激励机制和 ESG（即环境、社会、公司治理）信息披露要求以促进绿色金融方面取得了长足的进步。2019 年，中国是全球绿色债券发行量最大的市场，达 229 亿美元，占全球总量的 13.2%¹。预计“十四五”期间，中国将建立更加系统性的制度安排来促进绿色金融的发展。

但是，中国要实现其吸引更多外资并将气候融资纳入“一带一路”倡议的目标，就需要与全球标准进一步接轨。

国际合作：建设绿色“一带一路”

¹ <https://thesource.refinitiv.com/TheSource/getfile/download/a3657e8e-8e9c-4f21-91dd-6ea26ae48f74>

“一带一路”倡议作为聚焦发展中国家基础设施建设的全球投资计划，拥有推动脱碳的巨大潜力。然而，迄今为止，煤炭等高碳项目在“一带一路”倡议投资中仍较为突出。

目前已采取措施来“绿化”“一带一路”倡议。2020年10月发布的新指南将金融机构作为应对气候变化的主要杠杆，并提到了有关要求中国海外投资符合中国气候变化目标的法规，这与当前遵循“东道国原则”的做法截然不同。

英国

英国也宣布了要在2050年前实现碳中和的宏大目标，并在其“绿色工业革命的十点计划”中描述了为实现这一目标而采取的初步策略。该计划旨在创造25万个绿色就业机会，同时加速实现英国的净零排放。它承诺将动用120亿英镑公共资金，以及估计到2030年前共计约420亿英镑的民间投资。

除了领先一步制定详细脱碳计划外，英国还表示希望成为设定气候目标的全

球领导者。在担任 COP26 主席国期间，英国将带头推动峰会召开前有关减排和其他承诺的谈判。

政策方向

关键部门

能源：开发可再生能源

虽然化石燃料（主要是天然气）继续在英国能源生产中占据一定地位，但在 2019 年，英国电力生产中有 27%来自于可再生能源，包括风能、生物能、废物和水力。核能占英国能源供应约 10%。英国致力于在 2025 年前逐步淘汰所有燃煤发电。到 2030 年，风能和太阳能预计将占电力结构的 50%以上；多达 5 亿英镑将用于推动氢燃料作为低碳燃料的使用。交付新的大规模核电项目也是英国脱碳计划的关键，脱碳计划中还包括支持研发下一代小型和先进反应堆。

交通运输：向电气化和新的城市系统迈进

英国将禁售新汽油柴油车的时间从 2035 年提前到了 2030 年，并承诺拨款 13 亿英镑用于支持电动汽车充电站的推广建设。政府已承诺将 5.82 亿英镑用于购买零排放或超低排放车辆，以及将约 5 亿英镑用于在未来四年内开发、量产电动汽车电池。

计划中还包括，通过对零排放公共交通、步行和骑行的投资来支持交通运输实现更广泛的过渡，以及支持长期研究来帮助航空和航运业通过使用零排放飞机和轮船等方式实现脱碳。

建立可持续的基础设施

英国计划通过实施新建房屋的新标准，采用低碳供暖并达到世界领先的能效水平，与未来接轨，从而实现基础设施的“绿化”。计划中还包括对 CCUS 技术的投资，目标是在 2030 年前去除 10 吨二氧化碳当量，并创立一个 10 亿英镑的 CCUS 基础设施基金作为支持。

认识并实现自然环境的价值

英国的脱碳计划包括：通过每年种植 30,000 公顷树木来保护和恢复自然环境，承诺投资 4000 万英镑来在保护项目和新自然空间开发项目中创造数以千计的工作岗位。

以核心竞争力为依托：绿色金融

英国脱碳计划以英国现有优势为依托，包括在发展绿色金融方面的大笔投资，并充分利用英国深厚的资本市场及相关金融机构、成熟的法规，以及人才技能基础。英国是二十国集团里第一个强制要求有关方面进行符合气候相关财务信息披露工作组（TCFD）建议的报告的国家。英国还宣布，将于 2021 年发行第一笔主权绿色债券，以便“为应对气候变化的项目提供资金，并创造绿色就业机会”，同时满足不断增长的投资者需求。

碳定价：新的国家排放交易系统

英国还启动了自己的排放交易系统，这将是英国推动“绿色革命”之举的一个重要部分。这是世界上第一个净零碳排放总量控制与交易市场，交易系统中允许的排放总量上限比它所取代的欧盟体系低 5%。起初，英国这一新系统覆盖能源密集型行业、发电行业和航空业的排放。政府将探索扩大该排放交易体系的机会，以期将其覆盖剩余未覆盖排放的三分之二。

气候相关信息披露

从明年起，英国的大型企业也将面临更多气候风险方面的严格审查。2020 年 11 月，英国财政大臣苏纳克宣布，大型企业和金融机构将必须在接下来五年内报告自身气候相关的风险。

第三部分：中英脱碳合作的愿景

中英：国际合作的理由

中英两国全面的脱碳方针意味着双方在创新、为过渡提供资金等方面存在共同利益。两国也认识到，需要通过自身的改变和为其他国家的可持续发展提供支持，来担负起迅速行动应对气候变化的责任。因此，双方都在减排上作出了重大承诺。英中两国以这些共同利益和承诺为基础，在脱碳国际合作方面拥有广大空间。

两国既认识到自身在脱碳方面的责任，同时也将其视为机遇和挑战。的确，许多其他国家已将可持续发展原则纳入新冠疫情复苏刺激计划中。到 2030 年，所进行的巨额投资或能带来 26 万亿美元的直接经济收益，并创造 6500 万个就业机会。²这次过渡将为货物和服务的投资和出口带来商机，成为两国合作的激励因素。对于英国来说，机会包括专业机械和货物、专业服务以及城市规划 and 金融服务等专门知识的出口。而对于中国而言，机会包括技术、机械、

² <https://eciu.net/analysis/briefings/climate-impacts/climate-economics-costs-and-benefits#:~:text=The%20Global%20Commission%20on%20the,with%20business%2Das%2Dusual>.

服务的销售和出口的增长，以及绿色金融领域的发展。

中英气候合作建议

亚洲之家制定了四项建议，谨供政府、企业和政策利益相关方参考。

建议一：驱动绿色金融的全球可及性和质量

英中两国已经通过英中绿色金融中心，为大型金融中心之间的合作树立了全球榜样。伦敦拥有庞大的资本、丰富的绿色金融专业知识，以及对可持续发展日益关注的众多投资者。中国对国内的绿色金融以及国外第三市场项目的需求在不断增长，并且在绿色金融和政策制定方面拥有出色的专长。中英两国通过在监管和商业上合作，可以提升绿色金融的可及性和质量。

加强中英经济财金对话的绿色相关内容

英中两国就经济政策的优先事项定期举行论坛，即经济财金对话。该对话已

经取得了包括“沪伦通”在内的多个里程碑。³两国应就以下问题进行高层讨论，从而加强经济财金对话的绿色相关内容：⁴

- 创造新的绿色融资工具和产品，重点关注涉及各资产类别的可扩展解决方案，以及对“绿色”项目和过渡融资的纳入，例如已在伦敦证券交易所推出的过渡债券板块。
- 通过鼓励投资者和其他利益攸关方与 TCFD 接触，从而驱动标准化，支持在财务报告中纳入相关披露。
- 努力将国际层面的多种做法协调成较为一致的绿色金融分类。

英中两国还应制定一项计划，在每年一度的经济财金对话会议之间进行政策和监管层面的定期讨论与合作。

全球层面的协调

英中两国还为在重要的多边论坛上开展合作树立了榜样，例如共同主持二十国集团（G20）[可持续金融研究小组](#)⁵以及两国率先实施 TCFD 建议的承诺。

³ <https://www.gov.uk/government/news/tenth-economic-and-financial-dialogue-held-between-the-uk-and-china>

⁴ <https://www.ukchinagreen.org/wp-content/uploads/2020/06/Resilience-Lessons-to-Scale-Responsible-Investing-June-2020-EN-FINAL.pdf>

⁵ <https://www.mainstreamingclimate.org/sfsg/>

中英环境信息披露试点⁶还具有先进的气候报告做法。两国还可以通过 G20、COP、国际可持续金融平台⁷、以及央行绿色金融网络⁸等共同参与的论坛来做更多工作。上述的经济财金对话议程应及时在全球范围推广，而且，两国可在不断进行的双边合作基础上，推动绿色金融的全球议程。

建议二：探索国际碳市场的发展

中英两国都将于 2021 年启动排放交易计划。英国在退出欧盟后，其排放交易计划也独立于欧盟体系。中国将于 2021 年启动的这一计划覆盖了发电行业。该计划的设计参考了欧盟的建议，因此中英欧三个计划将具有相似的基本特征。有关合规计划联动的讨论已经展开，但目前主要的联动只有欧盟和瑞士的计划以及美国加州和加拿大魁北克的计划。

中国和英国的计划刚诞生不久，计划联动的概念亦方兴未艾。中英应围绕两

⁶ <https://www.unpri.org/climate-change/uk-china-pilot-on-climate-and-environmental-risk-disclosure-2nd-year-progress-report/5744.article>

⁷ https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/international-platform-sustainable-finance_en

⁸ <https://www.ngfs.net/en>

国计划的联动，在未来的财金对话中展开讨论。这可降低减排成本，增加市场流动性，稳定和协调价格，并为全球合作提供支持。

同时还可以加速发展自愿碳市场，这将支持企业调整自己的模式，向碳中和靠拢。在国家层面，中国继续拓宽“中国温室气体自愿减排项目”⁹的规模，英国公司可以自愿从经批准的提供商处购买信用。由联合国气候行动特使马克·卡尼发起的[扩大自愿碳市场特别工作组（Taskforce on Scaling Voluntary Carbon Markets）](#)提供的结论意见称，大规模的自愿市场将对于实现《巴黎协定》的目标具有重要意义。该工作组正在开展下一阶段工作，这一问题可能会在 COP26 会议上讨论。在这些全球参与的讨论中，中英两国可以分享自身市场的经验，并且在经济财金对话的绿色相关内容中引发有关自愿市场和合规市场的讨论。

建议三：合作发展绿色全球基础设施

2013 年启动的“一带一路”倡议是有史以来最大的基础设施发展战略。但是，

⁹ <https://www.edf.org/climate/status-chinas-voluntary-carbon-market>

全球温室气体排放量中，70%来自基础设施的建设和运营。因此，在过去的几年中，人们一直非常关注“一带一路”倡议的绿色发展，以确保新基础设施能以可持续的方式开发和使用的。

2018年，中英联合发布了《“一带一路”绿色投资原则》。¹⁰自此，已有来自14个国家和地区的37个签署机构和12个支持机构参与其中。《绿色投资原则》旨在协调绿色基础设施标准，促进绿色金融产品在基础设施发展中的使用，并减少“一带一路”倡议的排放量。“一带一路”倡议绿色投资原则首届指导委员会于2020年4月召开会议¹¹，制定了治理结构和未来路线图。

这些倡议计划对于协调环境标准和基础设施开发方法非常重要。这可能包括强制要求进行环境影响评估，以及做出大胆政策决定，例如暂停燃煤电站。中英两国还同意采取一些切实可行的措施来进行全球基础设施的绿色发展。

通过与亚洲基础设施投资银行等开发银行合作，中英两国可以为这一可投资

¹⁰ <https://green-bri.org/green-investment-principle-gip-belt-and-road-initiative/>

¹¹ <https://www.paulsoninstitute.org/green-finance/green-scene/gip-steering-committee-meets-to-push-forward-greening-the-belt-and-road/>

的绿色基础设施管道提供支持。这意味着为项目提供资金，直至建设阶段。两国可以共享专长，建设在第三方国家合作的能力，以找到并开发可持续项目。其中一种具体做法是，帮助各国为其脱碳承诺而进行的基础设施和投资作出规划。

最后，为了打下在第三国合作的基础，中英还可以深化双边合作，以建设绿色基础设施并充分利用两国的专业知识。

建议四：合作创新

中英两国都致力于将创新贯彻于国家可持续发展战略中。中国在电动汽车、可再生能源和 CCUS 等一系列技术的发展中发挥了重要作用。英国在氢能、潮汐能和海上风能的创新上走在前沿。双方已经开始开展创新合作。英国研究与创新署（UK Research and Innovation）¹²认识到中国在资金、研究人员和专利方面的规模，以及在发展伙伴关系上的机遇，几年前已在中国设立了办

¹² <https://www.ukri.org/our-work/collaborating-internationally/our-international-offices/ukri-china/>

事处。但是，支持气候技术的发展方面还有许多工作要做。

中国在推广技术上市的往绩尤为出色，这对英国创新者来说具有重要价值。可以通过在中国建立合作伙伴关系，增加中国投资者的参与，并利用他们在英国气候项目中的制造专长，从而充分利用这一机遇。这或能给英国政策的其他优先要务（例如区域发展）带来极大益处。

我们需要仔细思考围绕绿色技术进行创新交流的整体方针。英国可以先努力让现有的倡议计划——如 2 亿英镑的中英联合科学创新基金（牛顿基金）和中英高级别人文交流机制等——更多地关注环境创新。在全球层面，中英两国可以在清洁能源部长级会议¹³等论坛上推动绿色创新议程。标准和协议的协调将能推动全球对共同关心的优先技术（例如氢能）的采用。

结论

¹³ <http://www.cleanenergyministerial.org>

如本文所述，中英两国有许多机会通过双边互动与合作来加大为解决脱碳重大挑战所提供的支持。两国有着许多互补的优势和能力。这也使得两国有机会在应对气候变化这一人类有史以来最大的挑战中巩固自身的全球领导地位。

正如建议中所阐明的那样，要迈向可持续的未来，就需要各个方面、政府、企业、学术界和民间社会都来支持相关工作。亚洲之家将继续关注全球气候过渡。我们期待着与来自中国、英国，以及世界其他地方的利益攸关方接触，共同为这一领域做出积极贡献。

International collaboration for a sustainable future: Opportunities for China and the UK to work together on decarbonisation of the economy

Asia House

Executive Summary

China and the UK have already started to make the significant efforts required to decarbonise their economies, which presents new opportunities to increase cooperation. This report makes a case for greater engagement on decarbonisation and identifies key areas for cooperation.

Context

Fossil fuels currently account for the majority of **energy production**. While renewables have started competing with fossil fuels on the cost of energy production, the significant challenge remains the efficiency of renewables and adaption of existing power systems.

Transport emissions account for 15 percent of global emissions. The cost of alternatives to petrol and diesel vehicles remains high, especially when accounting for the very significant need for developing new energy systems, charging infrastructure and redesign of urban systems.

18.4 per cent of global emissions are produced by **industry**. Electrification and Carbon Capture, Utilisation and Storage (CCUS) will bring down emissions, but the main challenge is to develop the technologies required for this.

Agriculture accounts for 11 percent of global emissions, but **land use change** can also impact climate, particularly deforestation.

The OECD estimates that US\$6.9 trillion a year is required up to 2030 to meet climate and development objectives. While public **financing** will cover part of this, private sector financing will also need to be developed.

China's outlook

China's key challenge will be to move away from fossil fuels for energy production, particularly coal, in favour of renewables. The most likely alternatives will be solar, which is already well established in China, and wind.

China's advanced manufacturing ambitions will provide opportunities to introduce 'green' technologies into industrial production. China's New Energy Vehicle (NEV) sector, which is already advanced, will be critical as China seeks to enhance industrial competitiveness for key industries.

China is also leading in many of the approaches to green finance. This will be a critical tool within China to enable the transition to a low carbon economy, but also for China to 'green' the Belt and Road Initiative. This will help China lower the

impact on climate of infrastructure development, but also support developing countries to achieve sustainable economic development.

The UK's outlook

According to the UK's comprehensive *Ten-Point-Plan for a Green Industrial revolution* the major challenge is also the transition to renewables for energy production. The UK aims to invest significantly in offshore wind, which is already advanced in the UK, as well as developing low carbon fuels such as hydrogen.

On transport, the UK has banned new petrol and diesel cars from 2030 and will support innovation in both NEV's and charging infrastructure.

The UK also plans to promote green infrastructure, innovation in CCUS and environmental protection. The plan also includes a significant focus on Green Finance to mobilise the UK's capital market and finance sector in support of decarbonisation and economic growth.

Recommendations

Drive the global availability and quality of green finance

The development of innovative financing models, as well as driving connections between capital markets and commercially viable sustainable investments will

significantly boost decarbonisation efforts. Access to capital will be critical to achieving many of the strategies for transition to a low carbon economy. China and the UK should also seek to ‘green’ the EFD with discussions on climate objectives. The other recommendations above should feature in the next EFD and in other dialogues where the UK and China sit at the table.

Explore the development of international carbon markets

China and the UK should link their burgeoning national emissions trading schemes (ETS) as this could reduce the costs of cutting emissions, increase market liquidity, stabilise and harmonise prices, and support the development of a global carbon market.

Encouraging voluntary carbon markets would also help businesses achieve carbon neutrality as a large-scale voluntary market will be critical to reaching the goals of the Paris Agreement.

Cooperate on greening global infrastructure development

The joint China-UK *Green Investment Principles for the Belt and Road* aims to harmonise green infrastructure standards, promote the use of green financial products in infrastructure development, and reduce the emissions footprint of the BRI.

China-UK cooperation on sustainable infrastructure should not be limited to policy discussions, but should also include expertise sharing and support for commercial partnerships.

Cooperation on innovation

Both the UK and China have committed to innovation in their national sustainability strategies and China is the UK's third biggest single-country partner for collaborative research.

China's track record of scaling technologies for market is highly complementary to the UK's expertise in discovery science and early-stage R&D. This presents excellent opportunities for collaboration on joint research.

Foreword

The most significant challenge faced by the international community is the need for urgent action to tackle climate change. The major changes needed to achieve this will have wide ranging impacts on how populations work, trade, and ultimately prosper, if human behaviour is to be adapted to protect the natural environment for a sustainable future.

While the net-zero commitments made by the UK and China, among a growing list of major economies, are very welcome and encouraging, a great deal of work is now required to identify and implement the measures needed to achieve those commitments. As well as national efforts, bilateral and multilateral cooperation will be essential to hit these targets.

This report, which reflects the importance that Asia House places on sustainability, comes at an important time as the UK and China prepare for the critical COP15 and COP26 conferences, along with rest of the international community. These recommendations intend to serve as a useful prompt for the UK and China to consider for cooperation both on shared efforts to decarbonise, but also in providing direction and leadership in these endeavours.

Lord Green of Hurstpierpoint

Chairman, Asia House

International collaboration for a sustainable future: Opportunities for China and the UK to work together on decarbonisation of the economy

This report explores the opportunities for China and the UK to work together on decarbonisation and makes recommendations for how this can be achieved. Following an overview of the context, the report will study the two countries' net-zero emissions commitments and their strategies to achieve them. The report will also look highlight some of the major challenges that each country faces in implementing their respective plans for decarbonisation.

Through five key recommendations, the report will make a case for greater engagement on decarbonisation, mapping out a vision for that engagement and identifying key areas for cooperation on decarbonisation.

PART I: Context

Over the past 12 months, several major economies, including China, have made high-level commitments on climate action. President Xi Jinping announced at the UN General Assembly in August 2020 that China would reach peak emissions before 2030 and would become net-zero carbon by 2060. Japan and Korea have

committed to becoming carbon neutral by 2050, joining other major economies including the UK, the EU, and EU member states, many of whom have enshrined their commitments in law.

Having passed legislation in 2019 to require the country to be carbon neutral by 2050, the UK has made further significant announcements to support its commitment. In December 2020, the UK announced that it would reduce emissions relative to 1990 levels, by at least 68% by 2030. Accompanying this commitment is a ten-point-plan which covers energy production, transportation, manufacturing, infrastructure development and sustainable finance tools.

In the lead up to the COP26 meeting in November 2021, it is expected that most countries will publish not only their nationally determined contributions, but also roadmaps of how they plan to reach their goals. At the COP26 meeting itself, both technical and high-level discussions will aim to push targets further, negotiate sector-specific commitments such as phasing out the use of coal, and build alliances to pursue targeted actions such as establishing frameworks for sustainable finance.

Challenges

The transition to a low-carbon economy will likely be one of the greatest economic challenges faced by any country to-date and even the most optimistic scenarios see

a large increase in systemic risk driven by extreme weather events, droughts, sea-level rises, migration, and other consequence of climate change. The transition will affect the way industries operate and the way people travel, consume, eat, and live. It will require a mix of regulation and sustained pressure towards voluntary actions to achieve. However, there are also major opportunities for business efficiency, economic growth, job creation, and benefits to human health and biodiversity to be gained from the transition.

Fossil fuels currently account for the majority of **energy production**. While renewables have started competing with fossil fuels on the cost of energy production, the significant challenge remains the efficiency of renewables and adaption of existing power systems.

Transport emissions account for 15 per cent of global emissions. The cost of alternatives to petrol and diesel vehicles remains high, especially when accounting for the very significant need for developing new energy systems, charging infrastructure and redesign of urban systems.

18.4 per cent of global emissions are produced by **industry**. Electrification and Carbon Capture, Utilisation and Storage (CCUS) will bring down emissions, but the main challenge is to develop scalable and affordable technologies required for this.

Agriculture accounts for 11 percent of global emissions, furthermore **land use change** also impacts climate, particularly deforestation.

The OECD estimates that US\$6.9 trillion a year is required up to 2030 to meet climate and development objectives. While public **financing** will cover part of this, private sector financing will also need to be developed.

There are political challenges as well. Broadly, there is a divide between advanced economies and industrialising countries in terms of the contributions to cutting global emissions. However, global climate change cannot be managed unless all countries take action. Hence, helping developing and middle-income countries is a key focus of the Paris Agreement and COP agenda.

Climate commitments will also have an on economic competitiveness. There has been a major shift in the past few years as the environmental profile of companies has become increasingly important to consumers and investors, as well as governments. Many companies are taking significant voluntary measures to reduce and offset their environmental impact along their value chain.

However, there are legitimate concerns about the competitiveness of companies that comply with strict environmental regulations against imports from markets with

more lenient environmental regulations. The EU's response has been to plan to propose in 2021, a 'carbon border tax' (Border Carbon Adjustment), which aims to create a level playing field for local companies who comply with the EU's Emissions Trading Scheme and other environmental regulations.

This approach emphasises the pressing need for coordination at the international level, particularly on how domestic environmental regulation is treated by trading partners. In a globalised economy, the fight against climate change must become global.

PART II: Decarbonisation strategies

CHINA

While China's 2030 peak emissions target appears comfortable based on current trajectories, the 2060 carbon neutrality goal is hugely ambitious. It will require a fundamental restructuring of China's economy and energy mix over the next four decades, with far-reaching consequences for the global economy.

Policy directions

Key Sectors

Energy: Shifting from coal to renewables

Power generation accounts for almost half of China's carbon emissions and is heavily fossil-fuel dependent. The single most important step towards net zero will be an almost complete phase-out of fossil fuel power plants over the next four decades, to be replaced with solar and wind capacity (already on the cusp of being cost-competitive with coal), with supporting roles for nuclear and hydropower.

Despite these proposed investments, fossil fuels will remain important in the short- to medium-term. Coal supports jobs and energy security, while gas is an important bridge fuel to improve air quality. Large sums will go to equip new and existing fossil-fuel power plants with carbon capture and storage (CCS) technology.

Industry: The rise of “green manufacturing”

Industry (excluding power generation) accounts for over 30 per cent of China’s carbon emissions. The government will push aggressive decarbonization of emissions-intensive sectors such as steel, cement, aluminium, petrochemicals, paper, and glass.

In the short-term, existing programs to electrify these sectors will likely be accelerated, along with regulatory actions to boost investment in energy efficiency and CCS. Over the long-term, industrial upgrading and economic restructuring - catalysed by the burgeoning domestic carbon market - should significantly reduce emissions from heavy industry.

In coming years and decades, green manufacturing policies will boost demand for equipment upgrades, energy monitoring and management systems, smart technologies, and CCS for in-house power and heat production.

Transport: Driving for dominance in new energy vehicles

Efforts to decarbonize transport, which accounts for 10% of China's carbon emissions, will continue to focus on new energy vehicles (NEVs) and associated infrastructure to improve urban air quality and reduce dependency on foreign oil and internal combustion engine technology. The government aims for NEVs to make up 25% of new car sales by 2025, up from 5% at present.

The government is now also supporting the development of hydrogen cell vehicle (HCV) industrial clusters and will also push adoption of low-carbon solutions for aviation, logistics, maritime transport, and city-wide intelligent transport networks.

Green buildings and infrastructure

China cannot meet its climate goals without more sustainable approaches to urbanization and has launched a series of policies to decarbonize cities and construction. As well as rigorous standards on the use of sustainable construction materials and processes, relevant financing mechanisms are being developed to ensure successful implementation.

The 13th Five-Year Plan (2016-2020) supported green urban development by expanding low-carbon city projects to over 100 cities. This is supported by the “New Infrastructure” initiative launched in 2020, which aims to mobilize public and private capital to build infrastructure supporting low-carbon development.

Policy tools and horizontals

Pricing carbon: Towards national emissions trading

Building on regional pilots, China's national emissions trading scheme (ETS), launched in January 2021 as the key tool to price carbon. At present, it only covers power plants and exerts relatively weak cost incentives. It is expected to expand to cover more sectors such as steel and petrochemicals and be complemented by other market-based instruments, such as resource taxes, emissions fees, and fuel taxes.

Indigenous innovation

Muscular industrial policy will underpin China's efforts to reduce emissions and tap high-growth clean tech markets overseas. The government will direct significant resources to develop national champions in low-carbon sectors through various channels including subsidies, R&D incentives, and state-sponsored VC funds. SOEs are tasked with developing world-class solutions for renewable energy, new materials, and energy storage.

Green finance

Beijing sees green finance as crucial to raise and direct funding for China's low-carbon transition. The government can only cover a fraction of needed capital

investments, which run to the region of \$1 trillion annually.

Over the last five years, China has made significant progress in setting standards, incentive mechanisms, and ESG information disclosure requirements to promote green finance. In 2019, China was the world's largest green bond market by issuance amount, at US\$22.9 Bn, accounting for 13.2 per cent of the global total¹⁴. In the 14FYP, China is expected to put in place more systematic institutional arrangements to further the development of green finance.

However, further harmonization with global standards is needed if China is to realize its aims of attracting more foreign capital and integrating climate financing into the BRI.

International cooperation: Greening the Belt and Road

As a global investment scheme focused on infrastructure in developing nations, the BRI has huge potential to spur decarbonization. However, to date, high-carbon projects such as coal have loomed large in BRI investment.

Steps are now being taken to “green” the BRI. New guidance issued in October 2020 identifies financial institutions as a key lever for tackling climate change and mentions regulations for overseas investments aligned with climate change targets,

¹⁴ <https://thesource.refinitiv.com/TheSource/getfile/download/a3657e8e-8e9c-4f21-91dd-6ea26ae48f74>

which would be a big departure from the current practice of adhering to the “host country principle.”

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The UK has also announced an ambitious target of carbon neutrality by 2050 and laid out its initial strategies for how it plans to achieve this In a *Ten-Point-Plan for a Green Industrial revolution* which aims to create 250,000 green jobs whilst accelerating the UK’s progress towards net zero emissions. It promises to mobilise £12 billion of public funding – and potentially an estimated £42 billion of private investment by 2030.

As well as leading on detailed planning for decarbonisation, the UK has stated its desire to be a global leader in setting climate goals and with the Presidency of COP26 the UK is taking the lead in facilitating negotiations on emission reductions and other commitments ahead of the summit.

Policy direction

Key Sectors

Energy: developing renewable sources

While Fossil Fuels – predominantly natural gas – continue to play a role in domestic energy production, in 2019, 27 per cent of electricity production came from renewables, including wind, bioenergy, waste and hydro. Nuclear power accounts for around 10 per cent of the UK energy supply. The UK is committed to phase out all coal-fired power generation by 2025. By 2030 wind and solar power are expected make up over 50% of the electricity mix up to £500 million pledged to advancing the use of hydrogen as a low carbon fuel. Delivering new large-scale nuclear power projects is also key to the UK’s decarbonisation plans, which include support for research to develop the next generation of small and advanced reactors.

Transportation: towards electrification and new urban systems

The UK has brought forward the ban on the sale of new petrol and diesel cars from 2035 to 2030 and pledged £1.3 billion to support the rollout of charging stations for electric vehicles., £582 million has been pledged for zero or ultra-low emission vehicle purchase and approximately £500 million for the development and mass-

scale production of electric vehicle (EV) batteries in the next four years.

Plans also include support for a broader transport transition by investing in zero-emission public transport, and walking and cycling, as well as long-term research to allow the aviation and shipping industries to decarbonise, including the use of zero-emission planes and ships.

Creating sustainable infrastructure

The UK plans to 'green' infrastructure by implementing new standards for new-build homes which will be future-proofed with low carbon heating and world-leading levels of energy efficiency. Plans also include investing in carbon capture, utilisation and storage (CCUS) technology, with a target to remove 10MT of carbon dioxide by 2030, supported by the creation of a £1 billion CCUS Infrastructure Fund.

Recognising and realising the value of the natural environment

UK decarbonisation plans include protection and restoration of the natural environment by planting 30,000 hectares of trees every year, a commitment of £40 million to create thousands of jobs in conservation projects and the development of new natural spaces.

Building on core competencies: Green Finance

Building on existing UK strengths, Decarbonisation plans include significant investment in the development of green finance – leveraging the deep UK capital market, with its associated financial institutions, established regulation, and skills base. The UK was the first G20 country to require mandatory reporting aligned with the Task Force on Climate-related Financial Disclosure (TCFD) and has also announced its first sovereign green bond in 2021 to “finance projects that tackle climate change and to create green jobs” while meeting growing investor demand.

Pricing Carbon: New National Trading Scheme

The UK has also launched its own emission trading system (ETS) that will be an important element of the UK's push toward a "green revolution". It is the world's first net-zero carbon cap-and-trade market with the cap on emissions allowed within the system reduced by 5% from the EU system it replaces. Initially, the new UK system covers emissions from energy-intensive industries, electricity generation and aviation. Opportunities to expand the UK ETS to cover the two-thirds of remaining uncovered emissions will be explored by the government.

Climate related disclosures

Major UK corporations are also set to face increased scrutiny on climate risks from next year. In November 2020, the UK chancellor, Rishi Sunak, announced that large businesses and financial institutions will have to report their climate-related exposure within five years.

PART III: A vision for UK-China cooperation to support decarbonisation

UK and China: Making the case for international cooperation

China and the UK comprehensive approaches to decarbonisation entail shared interests such as innovation and financing the transition. Both countries also recognise their responsibility to address climate change urgently, through domestic changes as well as supporting others to develop sustainably. Hence both have made significant commitments to reduce emissions. Based on these shared interests and commitments, there is a significant shared space for international cooperation between the UK and China on decarbonisation.

While recognising their responsibilities to decarbonise, both countries have identified this as an opportunity and a challenge. Indeed, many other countries have integrated sustainable development principles into COVID-19 recovery stimulus packages. The huge investment required could deliver a direct economic windfall of US\$26 trillion and create over 65 million new jobs by 2030.¹⁵ The transition

¹⁵ <https://eciu.net/analysis/briefings/climate-impacts/climate-economics-costs-and-benefits#:~:text=The%20Global%20Commission%20on%20the,with%20business%2Das%2Dusual.>

will present business opportunities across investment and exports of goods and services, incentivising cooperation. For the UK opportunities include exports of specialised machinery and goods, professional services, and expertise such as urban planning, and financial services. For China opportunities include growth in domestic sales and exports of technology, machinery, services, and the development of a green finance sector.

Recommendations for UK-China climate cooperation

Asia House has crafted four recommendations for consideration by government, business and policy stakeholders.

Recommendation 1: drive the availability and quality of green finance

The UK and China have already set a global example for cooperation between major financial centres through the UK-China Green Finance Centre. London has large pools of capital as well as green finance expertise and a wealth of increasingly sustainability-oriented investors. China has a growing demand for green finance

domestically, as well as for projects in third markets and has significant expertise in green finance and policy development. Through regulatory and commercial cooperation, the UK and China can increase the availability and quality of green finance.

Strengthen the green component of the UK-China Economic and Financial Dialogue

The UK and China have regular forum for cooperation on economic policy priorities, the Economic and Financial Dialogue (EFD)¹⁶ which has delivered milestones such as the London-Shanghai stock connect. They should seek to strengthen the green component of the EFD by driving high-level discussion on the following issues:¹⁷

- The creation of **new green financing tools and products** with a focus on scalable solutions across asset classes and inclusion of both ‘green’ projects and transition finance e.g. the transition bonds segment that has been launched on London Stock Exchange.

¹⁶ <https://www.gov.uk/government/news/tenth-economic-and-financial-dialogue-held-between-the-uk-and-china>

¹⁷ <https://www.ukchinagreen.org/wp-content/uploads/2020/06/Resilience-Lessons-to-Scale-Responsible-Investing-June-2020-EN-FINAL.pdf>

- Drive **standardisation** by encouraging engagement from investors and other stakeholders with the Task Force on Climate-related Financial Disclosure (TCFD) to support integrated disclosure within financial reporting.
- to the need harmonisation on **green finance taxonomy** among key global actors.

The UK and China should also develop a plan for regular discussion and cooperation at the policy and regulatory level, between the annual EFD meetings.

Coordination at the global level

The UK and China have also set examples for cooperation in key multilateral forums, such as co-chairing the G20 [Sustainable Finance Study Group](#)¹⁸ and the early commitments of the UK and China to implement TCFD recommendations. The UK-China Environmental Information Disclosure Pilot,¹⁹ has advanced climate reporting practice. More can be done through forums like the G20, COP, the International Sustainable Finance Platform,²⁰ and the Network for Greening the

¹⁸ <https://www.mainstreamingclimate.org/sfsg/>

¹⁹ <https://www.unpri.org/climate-change/uk-china-pilot-on-climate-and-environmental-risk-disclosure-2nd-year-progress-report/5744.article>

²⁰ https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/international-platform-sustainable-finance_en

Financial System²¹ of Central Banks of which UK and Chinese institutions are members. The agenda outlined above for the EFD should, in time, be expanded globally, and from a foundation of on-going bilateral cooperation, the UK and China can drive the global agenda for green finance.

Recommendation 2: Explore the development of international carbon markets

Both China and the UK will launch emissions trading schemes (ETS) in 2021. After ending its EU membership, the UK's scheme is separate from the EU ETS. China's scheme, to be launched for the power sector in 2021, has been designed with consultation with the EU, so all three schemes will share similar base characteristics. Linking compliance schemes is under discussion, although the only major links to-date are the EU and Swiss schemes and the Californian and Quebecois provincial schemes.

While the UK and Chinese schemes are new and the concept of linking schemes is nascent, the UK and China should build discussions around linking their schemes into future financial dialogues. This could reduce the costs of cutting emissions,

²¹ <https://www.ngfs.net/en>

increase market liquidity, stabilise and harmonise prices, and support global cooperation.

Voluntary carbon markets can also be accelerated, which would support businesses to adjust their models and move towards carbon neutrality. At the national level, China continues to scale its China GHG Voluntary Emission Reduction Programme,²² and UK companies can purchase credits voluntarily from approved providers. The [Taskforce on Scaling Voluntary Carbon Markets](#), launched by UN Special Envoy for Climate Action Mark Carney, concluded that a large-scale voluntary market will be critical to reaching the goals of the Paris Agreement. The work of the task force is moving on to its next phase and the issue is likely to be discussed COP26. In these global discussions China and the UK can share experiences from their own markets and generate discussion on both voluntary and compliance markets into the green component of the EFD.

Recommendation 3: Cooperate on greening global infrastructure development

The Belt and Road Initiative (BRI), launched in 2013, is the largest infrastructure development strategy ever proposed. However, 70 percent of global greenhouse gas emissions come from the construction and operation of infrastructure. Hence, in the

²² <https://www.edf.org/climate/status-chinas-voluntary-carbon-market>

past several years there has been considerable focus on ‘greening’ the BRI to ensure that new infrastructure is developed and used sustainably.

In 2018, the UK and China jointly published the Green Investment Principles for the Belt and Road.²³ Since then 37 signatories and 12 supporters from 14 countries and regions have signed up to the principles which aim to harmonise green infrastructure standards, promote the use of green financial products in infrastructure development, and reduce the emissions footprint of the BRI. The first steering committee for the GIP for the BRI met in April 2020²⁴ to develop governance structures and a future roadmap.

Such initiatives are important for aligning environmental standards and approaches to infrastructure development. This may include mandating environmental impacts assessments and taking bold policy decisions such as a moratorium on coal-fired power plants. There are also practical measures that the UK and China agree to green global infrastructure development.

Working with development banks such as the Asian Infrastructure Investment Bank

²³ <https://green-bri.org/green-investment-principle-gip-belt-and-road-initiative/>

²⁴ <https://www.paulsoninstitute.org/green-finance/green-scene/gip-steering-committee-meets-to-push-forward-greening-the-belt-and-road/>

China and the UK can support this investable green infrastructure pipeline. This means financing projects up to the construction phase. Both countries can share expertise and build capacity in third countries to identify and develop sustainable projects. One specific approach would be to help countries plan their infrastructure and investment for their decarbonisation commitments.

Finally, to lay the foundation for cooperation in third countries, China and the UK can deepen bilateral cooperation to build green infrastructure and leverage each country's expertise.

Recommendation 4: Cooperation on innovation

Both the UK and China have a commitment to innovation running through their national sustainability strategies. China has played a major role in the development of a range of technologies such as electric vehicles, renewables and CCUS. The UK is at the forefront of innovation on hydrogen power, tidal, and offshore wind. Innovation cooperation is already underway, UK Research and Innovation²⁵ have

²⁵ <https://www.ukri.org/our-work/collaborating-internationally/our-international-offices/ukri-china/>

had an office in China for several years in recognition of the scale of funding, researchers and patents China produces, and the opportunity for development partnerships. But there is more than can be done to support the development of climate technologies.

China has a particularly good track record of scaling technologies for market that is of significant value to UK innovators. This opportunity could be leveraged both through partnerships in China and increasing the involvement of Chinese investors and their manufacturing expertise in UK climate projects. This could have significant benefits for other UK policy priorities such as regional development.

The overall approach to innovation exchange around green technology requires attention. The UK could start by seeking to focus more of its existing initiatives such as the GBP200m UK-China Research and Innovation Partnership Fund (Newton Fund) and the UK-China High Level People to People Dialogue (P2P) towards environmental innovation. At the global level, the UK and China can drive a green innovation agenda in forums such as the Clean Energy Ministerial.²⁶ The global uptake of shared priority technologies such as hydrogen power, will receive significant support by the coordination of standards and protocols.

²⁶ <http://www.cleanenergyministerial.org>

Conclusion

As this paper demonstrates, there are opportunities for the China and the UK to increase support for critical decarbonisation challenges through their bilateral engagement and cooperation. Many of the strengths and capabilities of the two countries are complementary. This will also provide opportunities for China and the UK to increase their global leadership in tackling climate change – arguably the biggest challenge ever faced by humanity.

As the recommendations demonstrate, the challenge will require all parties, governments, businesses, academia and civil society, to support these efforts if the move to a sustainable future is to be achieved. Asia House will continue our focus on the global climate transition, and we look forward to engaging stakeholders from the UK, China and around the world to make a positive contribution in this area.