

BOOKS & ARTS

Empowerment is key

A plan to pull millions out of poverty while addressing climate change fails to acknowledge the importance of dispersing power to the people, explains **Iqbal Quadir**.

The Plundered Planet: Why We Must — and How We Can — Manage Nature for Global Prosperity

by Paul Collier

Oxford University Press: 2010. 288 pp.
\$24.95

Better governance is often called for to solve global challenges. In *The Plundered Planet*, former World Bank economist Paul Collier argues that a shared ethic for the management of natural resources and environmental liabilities could pull the world's most impoverished people out of poverty and address climate change at the same time.

Following up on his 2007 book, *The Bottom Billion*, Collier — currently director of the Centre for the Study of African Economies at the University of Oxford, UK — here identifies two holes in the web that protects the planet and its poorest inhabitants. One hole is created by bad governance, the other by the limitations of good governance. Together, these gaps make natural assets, such as a country's mineral wealth, vulnerable to plunder while making it difficult to manage natural liabilities such as carbon emissions.

To address the first problem, of governments requisitioning a country's resources without being held accountable, Collier maps out a way to encourage domestic leaders to harness natural assets for their citizens' benefit. His solution is to assess the worth of extracted materials and reinvest a proportional amount in society. To address the second problem, that of the absence of international bodies to regulate natural assets and liabilities, Collier calls for global cooperation between governments. Carbon emissions, for example, could be reduced if all nations agreed to and upheld a universal carbon tax. To ensure compliance, including even the poorest nations, Collier suggests using "carrots and sticks": supplying aid while applying constraints such as trade restrictions. He believes that such domestic and international schemes will ultimately be delivered by pressure from informed citizens and civil-society organizations that promote transparency and accountability.

Given the scale of the challenge, Collier sees governments as the main actors. He recognizes that his case hinges on the accountability of the governments of the bottom billion. But



G. M. B. AKASH/PANOS

Access to mobile phones in Bangladesh has contributed to increased individual productivity and income.

his top-down proposal misses the point that accountability cannot emerge when economic power is concentrated rather than dispersed. An informed citizenry is not enough: ordinary people in poor countries already know that they are getting a raw deal but lack the economic leverage to force their governments to change.

Dispersed power makes it harder for individuals or groups to corner resources or advance state policies that favour narrow interests. Power is centralized in governments that receive their revenue not from their own citizens but from outside — from aid, say, or mineral wealth. This channels resources to elites, strengthens bureaucracies and discourages entrepreneurship and innovation.

In the absence of dispersive forces, the continued mineral extraction prescribed by Collier would accrue wealth to state coffers. The provision of aid would similarly undermine government accountability.

Collier applauds Botswana for the way its sound government reinvested diamond wealth in agricultural support for its people, rather than plundering its natural assets for narrow gain. But he neglects the fact that it was dispersion of power that engendered this accountability. With poor soil and erratic rainfall, Botswana's limited agriculture surpluses prevented tribal chiefs from concentrating power, forcing them to rule by consensus.

Local chiefs were left in place by colonial British rulers, preserving the tradition of discussion and consensus-building.

Although the land in Botswana did not attract Europeans, cattle could tolerate it. When the country became independent in 1966, there were 40,000 cattle owners nationwide, with 2,500 owning more than 100 animals. A broad coalition of cattle owners became the ruling party. This government served vested interests by assisting the export of beef and building infrastructure in rural areas. National and individual interests became aligned towards greater production. Tribal and geographical diversity prevented consolidation of power, leading to the accountability that later helped Botswana to put its diamond wealth to good use.

A similar process gave power to the people of the United States in the late eighteenth century. The property owners — mostly farmers on relatively equal standing — organized their democracy together. By contrast, in Britain, citizens gained power from a narrow elite over centuries as technology and commerce allowed them to expand their economic clout and demand checks and balances. Regardless of how the dispersed power structure was achieved, it was preserved by innovations and technology in both the United States and Britain.

Better than Collier's government-led prescription would be to empower the bottom

billion as problem solvers. People are a country's biggest natural asset, and their engagement can bring about economic progress. Nearly two decades ago, I started an effort to provide widely accessible mobile-phone services in Bangladesh, leading to the creation of the company Grameenphone. A competitive multibillion-dollar telecommunications industry has since grown up there, based simply on products and services that increase people's productivity and income. In parallel, mobile-phone technology has attracted billions of dollars in investment to other countries that lack drinking water, health care and electricity, such as in sub-Saharan Africa.

The money invested in mobile-phone

infrastructure in poor countries did not come from state mineral wealth. Instead, individuals' ability to pay, stemming from their increased productivity, attracted investment. Entrepreneurs capitalized on this opportunity to provide a service. As economist Joseph Schumpeter noted in the 1930s, entrepreneurs — armed with ideas but not necessarily money — can rearrange the means of production to boost economic growth. In other words, empowered by tools and schemes that enhance productivity, the poor can tackle problems without relying on coordinated efforts by governments. It is a virtuous cycle: citizens advance their businesses and states collect more taxes, making them more accountable to the populace.

The supply of aid or a reliance on centralized mineral wealth destroys or prevents this link from emerging.

The Plundered Planet is right to highlight the importance of government accountability in addressing poverty and climate change. But it will be the dispersion of power, fuelled by entrepreneurship and innovation, that will ultimately empower individuals to create accountability and solve global problems. ■

Iqbal Quadir is professor of the practice of development and entrepreneurship and founder and director of the Legatum Center at the Massachusetts Institute of Technology, Cambridge, Massachusetts 02139, USA. e-mail: iqbalquadir@mit.edu

Excavating the puzzle of the Paris zodiac

The Zodiac of Paris: How an Improbable Controversy over an Ancient Egyptian Artifact Provoked a Modern Debate Between Religion and Science

by Jed Z. Buchwald and Diane Greco Josefowicz

Princeton University Press: 2010. 376 pp. \$35.00, £24.95

Compared with other ancient astronomical artefacts, the Egyptian carving known as the Dendera zodiac has been largely forgotten. Yet, two centuries ago, it was as celebrated as the just-discovered Rosetta Stone. The zodiac relief is now the subject of a groundbreaking study by historians of science Jed Buchwald and Diane Greco Josefowicz.

After Napoleon Bonaparte's invasion of Egypt in 1798, the elaborate panel was encountered on the ceiling of a temple at Dendera, north of ancient Thebes, now Luxor. The main part of the zodiac was removed by an enterprising, if unscrupulous, French engineer and shipped off to Paris in 1821, where it resides today at the Louvre Museum.

For decades after its discovery, the dating of the 'zodiac of Paris' was contested. Leading French scientists bitterly disagreed about the artefact's age on the basis of their astronomical calculations, including physicist Jean-Baptiste Biot and mathematician Joseph Fourier, who had accompanied Napoleon to Egypt. So too did other public figures, from sympathizers of the French revolution to supporters of Napoleon and his royalist successors.

Key to determining the zodiac's age was the historical position of stars in the depicted ancient sky. Fourier and others estimated that the object,

and thus Egyptian civilization, was much older than the age permitted by the biblical account of human creation — as much as 15,000 years BC. Competing experts suggested that the zodiac was merely Greek or Roman, only 2,000 years old, post-dating the Egyptian pharaohs.

The zodiac became a cause célèbre for left-wing atheists and the right-wing devout. A vaudeville theatre production, *Le Zodiaque de Paris*, was staged in 1822 even though it had been censored by the French government. Actors played the signs of the zodiac accompanied by a chorus of wailing mummies to satirize the popular, official and scholarly reactions to the antique.

In the end, the Gordian knot was cut not by the quarrelling scientists but by a young philologist, Jean-François Champollion, who deciphered the Egyptian hieroglyphs in 1822–24. Studying a drawing of a surrounding part of the zodiac that had been left behind in the Dendera temple, he translated the meaning of a hieroglyphic cartouche within it as *autocrator*, a Graeco-Roman title. The Catholic Church was delighted that this agreed with their view and the Pope offered to make Champollion a cardinal — much to his disgust, given that he was an anti-royalist religious sceptic.

Ironically, the drawing was erroneous: when Champollion visited Egypt in 1828 he saw that the crucial sketch did not match the *in situ* Dendera cartouche, which was empty of hieroglyphs. But different evidence from the site confirmed

that the Roman dating was correct. The modern date is the first century BC, which is in the time of Cleopatra, who is depicted in the temple. Yet the church's glee at this later date was not to last — other hieroglyphic inscriptions from the Valley of the Kings showed, to the satisfaction of Champollion, that Egyptian civilization went

back at least 5,000 years. The zodiac did not support creationism after all.

Buchwald and Josefowicz excavated the story of the Paris zodiac by drawing on extensive primary French sources. They include crucial illustrations and colour in the background to the debate with lively accounts, for example, of Napoleon's savants in Egypt and life in Restoration Paris. But the challenge of integrating so much diverse and

unfamiliar material can overwhelm the reader.

The Zodiac of Paris provides an intriguing insight into a tumultuous era. The story was hardly a triumph for "the calculating savants" over "their pious antagonists", say Buchwald and Josefowicz — astronomy alone did not establish an age. Champollion eventually succeeded in understanding the zodiac because his decipherment embraced both the logic of science, the ambiguity of the humanities and the exigency of ancient Egyptian religion. ■

Andrew Robinson is a visiting fellow of Wolfson College, University of Cambridge, Cambridge CB3 9BB, UK. He is writing a biography of Jean-François Champollion. e-mail: ar471@cam.ac.uk



Dating this Egyptian artefact pitted science against religion.