

7. Remember for Whom You Work

Federal administrators should always remember for whom they are ultimately working, the taxpayer. As an administrator, always remember the taxpayers struggling to make a living to support their families who are trusting federal agencies to be efficient and effective. While this trust was once blind, today federal agencies are closely scrutinized by the media, lobbyists, and better-educated taxpayers. . . .

8. Be a Manager and a Leader

Federal administrators today are expected to also be effective managers and leaders. They must independently set tactical and strategic goals to meet the missions of their agencies, be responsible and accountable, be able to access the organization and make the most of what is available, and be able to prove their value in the organization. Federal administrators must display and exude the same capabilities expected of private sector managers.

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MEGAPROJECTS AND RISK

BENT B. FLYVBJERG, NILS BRUZELIUS, AND WERNER ROTHENGATTER

The sheer magnitude of public-funded infrastructure projects world-wide creates not only engineering challenges, but also projects ethical conundrums. What difference will "the end of geography," "the death of distance," or "frictionless capitalism" make in management operations? Are unethical, wasteful, abusive, and corrupt practices a "natural" part of megaproject operations?

A NEW ANIMAL

Wherever we go in the world, we are confronted with a new political and physical animal: the multibillion-dollar mega infrastructure project. In Europe we have the

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Channel tunnel; the Øresund bridge between Denmark and Sweden; the Vasco da Gama bridge in Portugal; the German MAGLEV train between Berlin and Hamburg; the creation of an interconnected high-speed rail network for all of Europe; cross-national motorway systems; the Alps tunnels; the fixed link across the Baltic Sea between Germany and Denmark; plans for airports to become gateways to Europe; enormous investments in new freight container harbors; DM 200 billion worth of transport infrastructure projects related to German unification alone; links across the straits of Gibraltar and Messina; and the world's longest road tunnel in Norway—not to speak of new and extended telecommunications networks; systems of cross-border pipelines for transport of oil and gas; and cross-national electrical power networks to meet the growing demand in an emerging European energy market. It seems as if every country—and pair of neighboring countries—is in the business of promoting this new animal, the megaproject, on the European policy-making scene. And the European Union, with its grand scheme for creating so-called Trans-European Networks, is an ardent supporter and even initiator of such projects, just as it is the driving force in creating the regulatory, and deregulatory regimes that are meant to make the projects viable.¹

The situation is similar in industrialized and industrializing countries in other parts of the world, from Asia to the Americas. There are, for example, Hong Kong's Chek Lap Kok airport; China's Qinling tunnel; the Akashi Kaikyo Bridge in Japan; Sydney's harbor tunnel; Malaysia's North-South Expressway; Thailand's Second Stage Expressway; and proposals for an integrated Eurasian transport network. In the Americas there are Boston's Big Dig; freeways and railways in California; Denver's new international airport; Canada's Confederation Bridge; Sao Paulo-Buenos Aires Superhighway; the Bi-Oceanic highway right across South America from the Atlantic to the Pacific; and the Venezuela-Brazil highway. Even a proposed US \$50 billion project to link the USA and Russia across the Bering Strait—the “biggest project in history” according to its promoters—is not missing in the megaproject scheme of things.² Outside the field of transport infrastructure there are the Three Gorges Dam in China; Russia's natural gas pipelines; the Pergau Dam in Malaysia; flood control in Bangladesh; the Bolivia-Brazil gas pipeline; the Venezuela-Brazil power line; and, again and everywhere, the ultimate megaproject, the Internet with associated infrastructure and telecommunications projects.

ZERO-FRICTION SOCIETY

Megaprojects form part of a remarkably coherent story. Sociologist Zygmunt Bauman perceptively calls it the “great war of independence from space,” and he sees the resulting new mobility as the most powerful and most coveted stratifying factor in contemporary society.³ Paul Virilio speaks of the “end of geography” while others talk of the “death of distance.”⁴ Bill Gates, founder and chair of Microsoft Corporation, has dubbed the phenomenon “frictionless capitalism” and

sees it as a novel stage in capitalist evolution.⁵ When Microsoft and Gates single out a concept or a product, one is well advised to pay attention. “Frictionless society” may sound like an advertiser’s slogan in the context of its usage. It is not. The term signifies a qualitatively different stage of social and economic development.

In this development, “infrastructure” has become a catchword on par with “technology.” Infrastructure has rapidly moved from being a simple precondition for production and consumption to being at the very core of these activities, with just-in-time delivery and instant Internet access being two spectacular examples of this. Infrastructure is the great space shrinker, and power, wealth, and status increasingly belong to those who know how to shrink space, or know how to benefit from space being shrunk.⁶

Today infrastructure plays a key role in nothing less than the creation of what many see as a new world order where people, goods, energy, information and money move about with unprecedented ease. Here the politics of distance is the elimination of distance. The name of it is Zero-Friction Society. And even if we can never achieve utopian frictionlessness, we may get close, as is currently happening with the spread of the Internet. Modern humans clearly have a preference for independence from space and are consistently undercutting the friction of distance by building more and improved infrastructure for transport, including telecommunications and energy.

Megaprojects are central to the new politics of distance because infrastructure is increasingly being built as megaprojects. Thus the past decade has seen a sharp increase in the magnitude and frequency of major infrastructure projects, supported by a mixture of national and supranational government, private capital and development banks.

PERFORMANCE PARADOX

There is a paradox here, however. At the same time as many more and much larger infrastructure projects are being proposed and built around the world, it is becoming clear that many such projects have strikingly poor performance records in terms of economy, environment, and public support.⁷ Cost overruns and lower-than-predicted revenues frequently place project viability at risk and redefine projects that were initially promoted as effective vehicles to economic growth as possible obstacles to such growth. The Channel tunnel, opened in 1994 at a construction cost of £4.7 billion, is a case in point, with several near-bankruptcies caused by construction cost overruns of 80 percent, financing costs that are 140 percent higher than those forecast and revenues less than half of those projected. . . . The cost overrun for Denver’s US \$5 billion new international airport, opened in 1995, was close to 200 percent and passenger traffic in the opening year was only half of that

projected. Operating problems with Hong Kong's new US \$20 billion Chek Lap Kok airport, which opened in 1998, initially caused havoc not only to costs and revenues at the airport; the problems spread to the Hong Kong economy as such with negative effects on growth in gross domestic product.⁸ After nine months of operations, *The Economist* dubbed the airport a "fiasco," said to have cost the Hong Kong economy US \$600 million.⁹ The fiasco may have been only a start-up problem, albeit an expensive one, but it is the typical expense that is rarely taken into account when planning megaprojects.

Some may argue that in the long term cost overruns do not really matter and that most monumental projects that excite the world's imagination had large overruns. This line of argument is too facile, however. The physical and economic scale of today's megaprojects is such that whole nations may be affected in both the medium and long term by the success or failure of just a single project. As observed by Edward Merrow in a RAND study of megaprojects:

Such enormous sums of money ride on the success of megaprojects that company balance sheets and even government balance-of-payments accounts can be affected for years by the outcomes. . . . The success of these projects is so important to their sponsors that firms and even governments can collapse when they fail.¹⁰

Even for a large country such as China, analysts warn that the economic ramifications of an individual megaproject such as the Three Gorges Dam "could likely hinder the economic viability of the country as a whole."¹¹ Stated in more general terms, the Oxford-based Major Projects Association, an organization of contractors, consultants, banks and others interested in megaproject development, in a recent publication speaks of the "calamitous history of previous cost overruns of very large projects in the public sector." In another study sponsored by the Association the conclusion is, "too many projects proceed that should not have [been] done."¹² We would add to this that regarding cost overruns there is no indication that the calamity identified by the Major Projects Association is limited to the public sector. Private sector cost overruns are also common.

For environmental and social effects of projects, one similarly finds that such effects often have not been taken into account during project development, or they have been severely miscalculated.¹³ In Scandinavia, promoters of the Øresund and Great Belt links at first tried to ignore or downplay environmental issues, but were eventually forced by environmental groups and public protest to accept such issues on the decision-making agenda. . . . In Germany, high-speed rail projects have been criticized for not considering environmental disruption. Dams are routinely criticized for the same thing. However, environmental problems that are not taken into account during project preparation tend to surface during construction and operations; and such problems often destabilize habitats, communities, and megaprojects themselves, if not dealt with carefully. Moreover, positive regional development effects, typically much

touted by project promoters to gain political acceptance for their projects, repeatedly turn out to be non-measurable, insignificant or even negative. . . .

In consequence, the cost-benefit analyses, financial analyses, and environmental and social impact statements that are routinely carried out as part of megaproject preparation are called into question, criticized, and denounced more often and more dramatically than analyses in any other professional field we know. Megaproject development today is not a field of what has been called “honest numbers.”¹⁴ It is a field where you will see one group of professionals calling the work of another not only “biased” and “seriously flawed” but a “grave embarrassment” to the profession.¹⁵ And that is when things have not yet turned unfriendly. In more antagonistic situations the words used in the mud-slinging accompanying many megaprojects are “deception,” “manipulation,” and even “lies” and “prostitution.”¹⁶ Whether we like it or not, megaproject development is currently a field where little can be trusted, not even—some would say especially not—numbers produced by analysts.

Finally, project promoters often avoid and violate established practices of good governance, transparency, and participation in political and administrative decision-making, either out of ignorance or because they see such practices as counterproductive to getting projects started. Civil society does not have the same say in this arena of public life as it does in others; citizens are typically kept at a substantial distance from megaproject decision-making. In some countries this state of affairs may be slowly changing, but so far megaprojects often come draped in a politics of mistrust. People fear that the political inequality in access to decision-making processes will lead to an unequal distribution of risks, burdens, and benefits from projects.¹⁷ The general public is often skeptical or negative towards projects; citizens and interest groups orchestrate hostile protests; and occasionally secret underground groups even encourage or carry out downright sabotage on projects, though this is not much talked about in public for fear of inciting others to similar guerrilla activities.¹⁸ Scandinavians, who like other people around the world have experienced the construction of one megaproject after another during the past decade, have coined a term to describe the lack in megaproject decision-making of accustomed transparency and involvement of civil society: “democracy deficit.” The fact that a special term has come into popular usage to describe what is going on in megaproject decision-making is indicative of the extent to which large groups in the population see the current state of affairs as unsatisfactory.

NOTES

1. On the role of the European Union as a promoter of megaprojects, see John F. L. Ross, *Linking Europe: Transport Policies and Politics in the European Union* (Westport, CT: Praeger Publishers, 1998). See also OECD, *Infrastructure Policies for the 1990s* (Paris: OECD, 1993); and

Roger W. Vickerman, "Transport Infrastructure and Region Building in the European Community," *Journal of Common Market Studies*, vol. 32, no. 1, March 1994, pp. 1–24.

2. *The Economist*, 19 August 1995, p. 84.

3. Zygmunt Bauman, *Globalization: The Human Consequences* (Cambridge: Polity Press, 1998); here quoted from Bauman, "Time and Class: New Dimensions of Stratification," *Sociologisk Rapportserie*, no. 7, Department of Sociology, University of Copenhagen, 1998, pp. 2–3.

4. Paul Virilio, "Un monde surexposé: fin de l'histoire, ou fin de la géographie?," in *Le Monde Diplomatique*, vol. 44, no. 521, August 1997, p. 17, here quoted from Bauman "Time and Class." According to Bauman, the idea of the "end of geography" was first advanced by Richard O'Brien, in *Global Financial Integration: The End of Geography* (London: Chatham House/Pinter, 1992). See Frances Cairncross, *The Death of Distance: How the Communications Revolution Will Change Our Lives* (Boston, MA: Harvard Business School Press, 1997). See also Linda McDowell, ed., *Undoing Place? A Geographical Reader* (London: Arnold, 1997).

5. *Time*, 3 August 1998.

6. Although dams are not part of transport and communication infrastructure as such, we consider the building of dams to be part of the war of independence from space. Dams typically involve the production of electricity and electricity is one of the most effective ways of freeing industry from localized sources of energy and thus for making industry "footloose," that is, independent from space.

7. Peter W. G. Morris and George H. Hough, *The Anatomy of Major Projects: A Study of the Reality of Project Management* (New York: John Wiley & Sons, 1987); Mads Christoffersen, Bent Flyvbjerg, and Jørgen Lindgaard Pedersen, "The Lack of Technology Assessment in Relation to Big Infrastructural Decisions," in *Technology and Democracy: The Use and Impact of Technology Assessment in Europe. Proceedings from the 3rd European Congress on Technology Assessment*, vol. I, Copenhagen: n. p., 4–7 November 1992, pp. 54–75; David Collingridge, *The Management of Scale: Big Organizations, Big Decisions, Big Mistakes* (London: Routledge, 1992); Joseph S. Szyliowicz and Andrew R. Goetz, "Getting Realistic About Megaproject Planning: The Case of the New Denver International Airport," *Policy Sciences*, vol. 28, no. 4, 1995, pp. 347–67; Mark Bovens and Paul Hart, *Understanding Policy Fiascoes* (New Brunswick, NJ: Transaction Publishers, 1996); Peter Hall, "Great Planning Disasters Revisited," paper, Bartlett School, London, undated.

8. CNN, *Financial News*, 16 July 1998. . . . See also Elinor Ostrom, Larry Schroeder, and Susan Wynne, *Institutional Incentives and Sustainable Development: Infrastructure Policies in Perspective* (Boulder, CO: Westview Press, 1993).

9. *The Economist*, 28 August 1999, p. 47.

10. Edward W. Merrow, *Understanding the Outcomes of Megaprojects: A Quantitative Analysis of Very Large Civilian Projects* (Santa Monica, CA: RAND Corporation, 1988), pp. 2–3.

11. Joanna Gail Salazar, "Damming the Child of the Ocean: The Three Gorges Project," *Journal of Environment and Development*, vol. 9, no. 2, June 2000, p. 173.

12. Major Projects Association, *Beyond 2000: A Source Book for Major Projects* (Oxford: Major Projects Association, 1994), p. 172; Morris and Hough, *The Anatomy of Major Projects*, p. 214.

13. Ralf C. Buckley, "How Accurate Are Environmental Impact Predictions?" *Ambio*, vol. 20, nos. 3–4, 1993.

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15. Paul C. Huszar, "Overestimated Benefits and Underestimated Costs: The Case of the Paraguay-Paraná Navigation Study," *Impact Assessment and Project Appraisal*, vol. 16, no. 4, December 1998, p. 303; Philip M. Fearnside, "The Canadian Feasibility Study of the Three Gorges Dam Proposed for China's Yangtze River: A Grave Embarrassment to the Impact Assessment Profession," *Impact Assessment*, vol. 12, no. 1, spring 1994, pp. 21–57; C. Alvares and R. Billorey, *Damming the Narmada: India's Greatest Planned Environmental Disaster* (Penang, Malaysia: Third World Network and Asia-Pacific People's Environment Network, APPEN, 1988).

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17. For an empirical case, see Åsa Boholm and Ragnar Löfstedt, "Issues of Risk, Trust and Knowledge: The Hallandsås Tunnel Case," *Ambio*, vol. 28, no. 6, September 1999, pp. 556–61. For the theoretical argument, see James Bohman, *Public Deliberation: Pluralism, Complexity, and Democracy* (Cambridge, MA: MIT Press, 1996), chap. 3.

18. Brian Doherty, "Paving the Way: The Rise of Direct Action Against Road-Building and the Changing Character of British Environmentalism," *Political Studies*, vol. 47, no. 2, June 1999, pp. 275–91; Andrea D. Luery, Luis Vega, and Jorge Gastelumendi de Rossi, *Sabotage in Santa Valley: The Environmental Implications of Water Mismanagement in a Large-Scale Irrigation Project in Peru* (Norwalk, CT: Technoserve, 1991); Jon Teigland, "Predictions and Realities: Impacts on Tourism and Recreation from Hydropower and Major Road Developments," *Impact Assessment and Project Appraisal*, vol. 17, no. 1, March 1999, p. 67; "Svensk webbsida uppmanar till sabotage" (Swedish website is encouraging sabotage) and "Sabotage för miljoner" (sabotage for millions), *Svensk Vägtidning*, vol. 84, no. 2, 1997, p. 3, and vol. 85, no. 1, 1998, p. 7. One of the authors of the present book has similarly come across sabotage of a large-scale irrigation project in the Kilimanjaro region in Tanzania: see Bent Flyvbjerg, *Making Social Science Matter: Why Social Inquiry Fails and How It Can Succeed Again* (Cambridge: Cambridge University Press, 2001), chap. 10.

THE WORLD WE COULD WIN

MICHAEL DUGGETT AND FABIENNE MARON

Examining the complex idea of "global governance," Duggett and Maron posit a crisis which the International Institute of Administrative Sciences (IIAS) proposes resolving by establishing a "Charter of Good Global Governance" at the end of the research study. Identify the elements of good governance.

Source: Michael Duggett and Fabienne Maron, "Administering Global Governance: Making It Work," *IIAS Newsletter* 23, no. 1 (2004). Reprinted by permission of IIAS.