Sparks and Fizzles: Divergent Performances and Patterns of Cambodian Development Projects

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Abstract Starting from a development pilot project that aimed to introduce new water accounting procedures to Cambodia, this article examines interactions between technical experts from abroad and government officials. Drawing on STS, performativity theory, and the anthropology of development, the article shows that the dynamics at the project interface are characterized by parallel and incongruent performances. Visiting technical experts work on the assumption that they are operating at a science-policy interface. Meanwhile, officials align with the demands of technical rationality, aware of its discrepancy with the performance of politics outside the project frame. Two versions of project realities and their relation to broader Cambodian realities are thus performed simultaneously, but awareness of this is not evenly distributed, with significant consequences for the aspiration of development organizations to transfer knowledge. The case study feeds into a subsequent characterization of a more general pattern of sparks and fizzes, in which projects continuously start up, while efforts to bootstrap technology transfer peter out as they end. This pattern may be endemic to development projects that operate on the assumption of a science-policy interface that isn’t really there.

Keywords development projects, knowledge translation, performativity, Cambodia, water management

From the podium, a highly respected Dutch professor is explaining the benefits of Water Accounting Plus (WA+) to a group of Cambodian ministry officials and assorted others. It is December 2016, and the workshop takes place at an upscale hotel in Phnom Penh.

WA+ uses remote-sensing satellite data to analyze precipitation, evapotranspiration, the production of specific crops, soil moisture, land use, and much else. Combined with...
hydrological models, these data sets are used to compute water flows and storage changes, among other things. The results are visualized in maps, which form the basis for monthly water accounts meant to support a better utilization of water resources. Its introduction to Cambodia is supported by the Asian Development Bank (ADB), which is concerned about its agricultural investments. Thanking the audience, the professor concludes by emphasizing that the central aim is to mainstream water accounting as a policy tool.

As he steps down, the floor is taken over by three Cambodian officials. One by one, they briefly summarize what their respective ministries have learned about water accounting over the last year and how it matters to their work. The last power point slide of each presentation is more or less identical. While progress has been made, the ministries are not yet ready to carry out the procedures on their own. They would like a follow-up project with more workshops and training.

The floor opens up to questions. A field biologist working for an international environmental NGO questions the WA+ estimations about the water necessary to maintain the Tonle Sap fisheries. The calculation may need tweaking, the professor admits, but making some kind of reasonable estimation is important. By determining how much water is actually utilized and how, and holding it up against how much is really needed, it becomes possible to balance different usages of water elsewhere in the river basin. For example, he says, Cambodia must have an agreement with Vietnam about how much water must flow into the Mekong delta. It is thus crucial to make sure that this amount is available as a nonutilized remainder. “So,” the professor asks, “How much water needs to go to Vietnam?” After a brief silence, a senior official replies: “True, some water definitely has to flow to Vietnam. But we haven’t set a precise number. Because then we would be committed to pass on that much.”

1 Introduction

For several years I have conducted research among development practitioners—of which there are many—in Phnom Penh. Recently, this has been part of a larger project studying various Southeast Asian deltas and the climate, environmental, social, and political uncertainties they face. The meeting sketched above—the concluding workshop on the WA+ pilot project—provides insight into how such uncertainties are handled at the development project interface.

To begin, an international organization (like ADB) negotiates with ministries about relevant project content (like water resource management), and external funding is used to hire scientific or technical experts and consultants to conduct the initiatives outlined in project documents. Subsequent interactions between external experts and Cambodian recipients of knowledge transfer or capacity building are firmly embedded within the project form (see Jensen and Winthereik 2013), located at what in the West would be described as the science-policy interface.1

1 There is significant variation in how such interfaces are constructed and operate across American, European, and East Asian contexts (Jasanoff 2005; Jasanoff and Kim 2015). Yet, there are further qualitative differences between the countries in these regions and many developing Asian or African ones in which the very idea of such interfaces is foreign.
There are, of course, many specificities to such projects, and I detail several later, but something like a recurrent pattern of interactions and outcomes stretches across the whole field. One of the most striking features is the incongruence among the aspirations and efforts of short-term (or long-term) visiting experts to transfer knowledge or build capacity, the often considerable expenditure of funds, and the relatively meagre outcomes. As I discuss below, this discrepancy can be related to the only partial existence, if not actual nonexistence, of a science-policy interface. It can further be understood with reference to differences in the conceptualization and performance of politics by foreign experts and Cambodian policy makers.

To analyze the relation between divergent performances at the project interface and the pattern woven by projects in the aggregate, I draw on the feminist theorist Judith Butler’s (1990) depictions of discursive and bodily performativity augmented by STS versions that emphasize its material dimensions (Jensen 2004; Callon, Millo, and Muniesa 2007; Mackenzie, Muniesa, and Siu 2007). Suggestions from the pragmatist philosopher William James ([1909] 1975) about how to study relations that are both conjunctive and disjunctive, yet still facilitate the making of a flexible, continuous structure, further helps to elucidate a recurrent pattern of development projects and outcomes.

With a nod to the anthropologist Morten Axel Pedersen’s (2007: 185) description of shamanic ontology in Mongolia as premised on “intervallic” leaps “from one discrete form of being to another,” I call this a pattern of sparks and fizzles. What sparks are the many new projects continuously starting up with bursts of excitement and activities. What fizzles are the same projects as they approach their endpoint, with slim or no possibilities for continuation (“mainstreaming”).

There are various partly related disciplinary contexts for the analysis. At one level, this is an STS case study of the obstacles to knowledge transfer—or, more appropriately, translation—facing water resource management in Cambodia. However, it is also an analysis of a more general pattern of interactions pertaining to development projects in the country.

At another level, it can be asked whether the performances, interactions, and patterns I describe are specific to Cambodia at all. Resonance with studies in the anthropology of development (e.g., Ferguson 1990; Li 2007; Mosse 2004; Rottenburg 2009) indicates that this is probably not the case. As the analysis proceeds, the specificity of the case study feeds into subsequent characterization of a more general pattern of sparks and fizzles which, rather than being particularly Cambodian, may be endemic to many or most development projects that operate on the assumption of a science-policy interface that isn’t really there.

2 A Lack of Political Will?

The opening vignette can be used to exemplify a dynamic with which long-term development workers in Cambodia are well acquainted. Bi- and multilateral organizations and NGOs bring in money to set up projects to deal with the country’s varied problems. They are often enthusiastically welcomed by Cambodian government partners. In collaboration with line ministries and other official bodies, project documents are prepared, outcomes defined, indicators determined, and a flurry of activities set in motion. Training packages are developed, workshops are held in the hotels of Phnom Penh.
Penh, Sihanoukville, or Siem Reap, and research aiming to procure better baseline data on relevant topics ensues. Efforts may also be made to reach out to local administrations, get in touch with rural people, and, of course, begin technical implementation. Later, more rounds of documentation are produced, and meetings are held on progress, achievements, and plans for the future. Yet as soon as the influx of funds dries up, most or all activities cease. Experts and consultants, who visit short-term and have by then departed may never realize that little substantial came of their efforts. For those who work in Cambodia it is business as usual. Once the next round of project funds arrives, the motor starts up again.

International organizations are understandably concerned about pouring large amounts of money into project drains that seem to have no bottom. Accordingly, they often try to extract some kind of guarantee that government will continue to work toward goals even after projects end. And when this routinely does not happen, they request explanations. Because such queries are expected, government officials have a repertoire of replies with which to acknowledge and deflect them. The most general is that the wars that devastated Cambodia over the mid-twentieth century created a resource gap—economic, educational, and infrastructural—which the country is still trying to fill. First and foremost, there is a lack of funds. This generic problem then typically fans out in two directions, which, in the case of environmental issues, roughly take the following form.

To understand environmental change, it is necessary to have historical baseline data. For example, to support the threatened Tonle Sap lake, Southeast Asia’s most productive fishing system, it is necessary to have an at least tolerably precise estimate of how catches have changed over time, and of how productive the system is today. Unfortunately, such data is patchy at best (see, e.g., Lamberts 2006). There’s nothing reliable to compare with, and indeed hardly any monitoring system at all. What is needed, first of all, is thus data. But data can only be obtained with an adequate technological infrastructure, which is typically very expensive. Moreover, it depends on specialists capable of maintaining and operating it, and such people are rare in Cambodia. Thus, the second explanation for why projects tend to run aground as soon as foreigners leave is a lack of capacity.

Before it is feasible to mainstream projects—turning goals into operational standards—it is therefore necessary to receive more training, hold more workshops, and garner more technical assistance. No matter how well thought out, short-term projects will be insufficient, and thus there is invariably a need for follow-up. But in due time, officials insist, they will be ready to take over. It can be recalled that these were precisely the arguments made at the workshop described at the beginning of the article. While the professor began by insisting on mainstreaming, officials from three ministries, in what looked like spontaneous harmony, called for a project extension.

2 The situation is not unique to Cambodia. For example, the anthropologist Richard Rottenburg (2009) wrote about an African country anonymized as “Ruritania” that: “Personnel and finances . . . were hardly sufficient to execute the ministries’ responsibilities properly” (15) so that “whenever a problem arises, people immediately insist that a solution cannot be found due to a lack of funds” (25).

3 Compare with Rottenburg 2009: 36, regarding the anonymized “Ruritania”: “The main weakness of the organizations to be developed . . . is generally the fact that the data . . . is largely unusable . . . either missing or unreliable, which is why the consultant was sent for in the first place.”

4 As Rappleye and Un (2018: 12) note, several universities do not have PhDs on their faculty, and holding a doctoral degree often means swift promotion to dean or vice-rector.
Now it is difficult to reject these explanations entirely. Cambodia was certainly in a very poor shape after the civil war(s), and the Pol Pot regime killed most of a generation of experts and intellectuals. Still, for outside observers a nagging feeling that they also leave something to the side may persist. For one thing, the war is now decades past, yet progress on both education and infrastructure remains poor.

Moreover, this is despite the fact that Cambodia has experienced extraordinary economic growth over the last twenty years.\(^5\) Indeed, money is not missing quite in general. When it comes to support for certain kinds of industry and natural resource extraction, there seems to be some funds. And if one considers luxurious lifestyles of powerful party members and their business acquaintances, one may wonder about sources of income (see, e.g., Ear 2012).

Disinclined to accept that a lack of funds explains all problems, outsiders often land on an explanation that the political ecologist Francois Molle (2007: 34) has described as “the infamous ‘lack of [political] will.’”\(^6\) According to this explanation, while environmental issues, for example, seem urgent from outside perspectives, they simply do not hold the interest of the Cambodian political elite, which has other pragmatic, economic, and extractive goals (see, e.g., Hughes 2003; Hutchinson et al. 2014; Milne and Mahanty 2015).

Now, Molle does not give his reasons for referring to “lack of political will” as an “infamous” explanation, but as I see it there are two general problems. First, it is a vague, blanket characterization that can cover almost everything but clarifies very little. It says nothing, for example, about why there is “will” to support certain things and not others, or about the processes through which such a “will” is created. Second, due to this vagueness, whenever a lack of political will is invoked it becomes difficult to imagine any forward trajectory.\(^7\) Contrary to frustrated development professionals, however, I am not tasked with identifying this elusive path. My interest, instead, is to understand the recurrence of interactions that result in the kind of stalemate described above—which is then ascribed to a “lack of political will.”

3 Political Imaginaries

Consider a standard Western political imagination. In the contemporary West, “the political” is basically configured as (variations of) representative and deliberative democracies. Citizens express their political preferences at the voting booth or by
various forms of association, and elected politicians are in principle accountable to their voters. Tax money is fed into extensive bureaucratic and administrative networks, used to distribute funds for public goods, including education, health, infrastructure, and so forth. To achieve its goals effectively and efficiently, the state also relies on an extensive network of technical and scientific experts, whose expertise ought (again in principle) to orient the agendas of those in power. Of course, this system was always an ideal type, and it is furthermore under increasing pressure in many places. Yet, the situation is still quite different from many developing countries where it never held normative force, among other things because politics has never been either really representative or deliberative (see note 1).

In a deservedly classic study, James Ferguson (1990) analyzed what happened as the aid “machine” entered Lesotho. His characterization of development as an “anti-politics machine” emerged from the key finding that any political issue was systematically translated into a question of technological rationality. Inspired by Foucault, Ferguson’s approach was “diagnostic”—oriented toward symptoms and effects—rather than critical. Thus, although the agricultural project he studied did not achieve its intended aims, he showed that it was consequential in other ways, not least by de facto extending state power. Tania Li (2007), also inspired by Foucault (and Ferguson), would later analyze Indonesian development patterns and effects in terms of a distinctly modern “will to improve.”

Now if we turn to the Cambodian context, Sophal Ear (2012) has described the destructive effects of enormous aid flows rippling through society, and Caroline Hughes (2003) has shown many Cambodians to have been systematically excluded from access to material resources as well as democratic participation. Foreign aid is thus diagnosed as the foundation of a political system that is unaccountable to its citizens. It appears, then, that development aid’s “will to improvement” is complemented by a “lack of will” to be improved. But that “lack of will” has its own socio-political reasons.

These analyses are necessary and insightful but still have certain limitations. For one thing, the analytical categories and concepts embed Western assumptions about the form of the political. This is evidently the case for studies explicitly based on structural political economy (e.g., Hughes 2003; Hutchinson et al. 2014). But the situation is similar if we turn to Ferguson’s (1990) path-breaking study, which after all operationalized Foucault in Lesotho. And when Li (2007: 17–18) found Foucault insufficient for dealing with the limits of government in her Indonesian context she turned to . . . Karl Marx and Antonio Gramsci. Yet, while hegemony, capitalist exploitation, and the conduct of conduct are all interesting and relevant analytical tools, there is no reason to think they fully encompass the variability of political forms and interactions everywhere. As the anthropologist Marilyn Strathern (1988: 3) wrote, we “cannot really expect to find others solving the . . . problems of Western thought.”

In what follows, I develop an analysis of development projects as housing incongruent performances, which do not all conform to Western notions of political conduct or rationality. Instead of locating the “inertia” of development within a structure, I thus describe it as emerging from an interplay of divergent performances that does not quite add up to conventional versions “of what a social structure is” (Connerton 1989: 5).

The coexistence of divergent performances is very consequential for development projects that aim to transfer technical expertise. To be sure, Cambodians, like recipients
of development aid in other countries, often appear to “inconspicuously submit themselves to globally circulating models” (Rottenburg 2009: 37). But this is not proof of the “hegemonic dominance” of such global forms. Instead, the “submission” can be seen as a very particular kind of performance tailored to align with that of development aid organizations and foreign experts at the project interface. Meanwhile, political performances elsewhere operate on different principles.

4 Political Theater and Ontological Politics

Inspired by Clifford Geertz’s (1980: 131) analysis of analysis of nineteenth-century Bali as a political scene where ceremonial drama and spectacle conveyed “a fixed figuration of authority,” Cambodia has been described as a “theater” state (Heder 2007; Ledgerwood 2008).

The anthropologist Judy Ledgerwood (2008: 198), for example, analyzed the 2003 election as a spectacle in which political actors sought “to redefine and employ key symbols in a competition for power.” Others have suggested that powerful Cambodians draw on Buddhist repertoires (Harris 2010) and may indeed seek to cultivate an image resembling the powerful Khmer kings of yore (Osborne 1973). With reference to the prime minister Hun Sen, whose “reign” now stretches over four decades, Hughes (2006: 472) argued that his “populism and personalism . . . echoes contemporary myths of Cambodia’s greatest Angkorean king, Jayavarman VII (r. c. 1181–c. 1220).” While it is difficult to determine the precise extent and motivation of such mimicry, it is apparent that an important aspect of this politics is to seize “control of the right to declare the meaning of cultural symbols” (Ledgerwood 2008: 213).

Public appearances and speeches from senior politicians, for example, are often of impressive dimensions. Rather than conveying substance or content, they overwhelm by length, repetition, and force of rhetoric. The prime minister is known to meet international experts accompanied by a mixed troupe of senior officials, models, actresses, or singers. Senior officials not otherwise famous for their humility, bow and scrape before him. Abruptly stopping a lengthy monologue circling around his powers and achievements, he singles out one or another of his entourage. “You there, why don’t you sing for us.” After the intermission, the speech resumes. Once the prime minister leaves, a more “regular” format of meeting can be adopted.

Ledgerwood’s (2008: 218) depiction of “travel to the countryside to prove political prowess” is equally telling. While rural communes are generally left to their own devices, during election times officials, senior politicians, or the prime minister himself travel the land to hand out promises. “The monks at Inkorsie pagoda in Chealea commune asked us to provide a temple roof and a new school building. We will give it to you!” Hun Sen shouted to an applauding audience in Kampong Cham province as he visited prior to the 2013 elections, “The teachers in Choeung Prey

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8 The political theorist Quentin Skinner (1981) saw Geertz as illuminating “an alternative conception of the meaning of political authority and the exercise of power” that, according to O. W. Wolters (1999: 89n5), challenged “parochial assumptions in Western political theory”. Others have criticized Geertz for ignoring Balinese categories (e.g., Hobart 1987: 31, 36). The latter critiques provide further impetus for the examination of encounters between different kinds of political performance.
commune secondary school asked for a new building. We will give it to you!” (Meyn and Narim 2013).

As Ear (2012) and others have shown, Cambodian political culture relies on the economic flows of development aid. If the tax system remains dysfunctional, it is not least because the state depends more on aid than on taxation, and because opaque government channels means that nobody knows precisely where much of it ends. Because the national budget is perennially underfunded, no services are ever expected, and thus anything actually provided, like the new roof and buildings promised by Hun Sen, can be (theatrically) presented as a special “gift” (Hughes 2006: 470).9 There is thus an integral—symbiotic or parasitic—relation between Cambodian theatre politics and the anti-politics of aid development. Their modes of performance are incongruent, and yet they are mutually implicated. Aid projects and programs are interfaces for their divergent performances.

I am not making this distinction in order to reinstate the cliché of an insuperable gap between archaic Khmer culture and the rational West. As we shall see, there are indeed plenty of “nonrational” dimensions to technology-focused development aid, and Cambodian political performance involves many calculative elements. Yet, the specific elements are quite different and they are configured into variable, incongruent patterns. Accordingly, both must be treated as equally performative, in their own right, as well as in their mutual relations.

The feminist theorist Judith Butler (1990: 208; italics in original) famously characterized (Western) gender as “performative in the sense that the essence or identity that they otherwise purport to express are fabrications manufactured and sustained through corporeal signs and other discursive means.” There is a prima facie similarity between this characterization, in which gender performances are characterized as “ritualized social dramas” operating through repeated bodily and linguistic performances, and the workings of political theater as instantiated by Hun Sen’s public performances.10 Within STS, a parallel line of inquiry has emphasized that the performance of politics and economics depends on material devices and nonhuman agency (e.g., Callon, Millo, and Muniesa 2007; Mackenzie, Muniesa, and Siu 2007). Beyond Geertz’s symbolic production of the theater state, what is performed are materialized versions of reality, and thus it has become possible to speak of ontological politics (Mol 1999).11

The following analysis of incongruent performances and the patterns they generate is further guided by the pragmatist philosopher William James’s ([1909] 1975: 7) analysis of how “relations between things, conjunctive as well as disjunctive,” generate practices or situations capable of maintaining “a concatenated or continuous structure.” This analysis, which inspired Latour’s (1999) concept of circulating reference, has

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9 This dynamic is now changing rapidly due to a massive influx of Chinese investments and a decline of Western funds in response to what is regarded as the increasingly antidemocratic tendencies of the government.


11 Geertz (1980: 104) briefly gestured at the ontological dimensions of political theater, characterizing it as “designed to express a view of the ultimate nature of reality and, at the same time, to shape the existing conditions of life to be consonant with that reality; that is, theater to present an ontology and, by presenting it, to make it happen—make it actual.” Butler (1990: 213), in turn, emphasized that the legitimacy of performances depends on reiteration. For a particular reality to get hold, that is, it is necessary to reenact the same kind of political scene, enabling its gradual naturalization by participants.
significant purchase in the present context, where something like a concatenated structure is indeed *patched together* out of relations both conjunctive and disjunctive.

I now turn to examine divergent performances at the interface of a pilot project aiming to introduce new water management technologies and procedures to Cambodia. As noted, my central purpose is neither to provide an in-depth study of this case nor to judge it. Instead, I view it as *exemplary* of interface interactions and their consequences. Thus, the particulars of the case feed into a subsequent characterization of a more general pattern, in which projects continuously start up, while the efforts to bootstrap technology transfer peter out as soon as they come to an end. It is precisely this pattern of sparks and fizzes that leads frustrated experts to speak of a “lack of political will.”

5 Two Forms of Remoteness

In 2016, ADB’s third *Asian Water Development Outlook* focused on strengthening water security, which it identified as one of the greatest regional challenges. The report pointed to the immense toll of water-related disasters, to the pressures of massive urbanization on existing water infrastructures and ecosystems, likely to be exacerbated by climate change, and to the close relation between water and food security. Cambodia fared badly on the National Water Security Index presented in the report. Combining low individual scores of five key dimensions—household, economic, urban, environment, and resilience—the country barely edged beyond the threshold of “hazardous.”

In the foreword, ADB’s president Nakao Takehiko emphasized the importance of creating solutions “tailored and targeted” to these varied problems. He suggested that it is now possible to “easily” obtain detailed knowledge of water resources “across entire countries and regions by using technologies like remote sensing.” And he depicted the implementation of such systems as a “low-hanging fruit, yet a powerful instrument reflecting improved governance” (*ADB 2016: xiii*).

Developed by the UNESCO-IHE Institute for Water Education in collaboration with the International Water Management Institute, and the Food and Agriculture Organization, the WA+ framework draws primarily on open access satellite data. It uses this data to calculate a wide range of water resources and types of “usage,” from storage and distribution, to consumption and return flows. These processes and flows are visualized in water balances and accounts, which can support integrated water resources management and help repel the threat of water insecurity. Since 2015, WA+ has been piloted in Vietnam, followed by projects in the Karnataka and Madhya Pradesh provinces in India, and in Sri Lanka, Indonesia—and Cambodia.12

A 2017 report by the Consortium of International Agricultural Research Centers’ (CGIAR) Research Program on Water, Land and Ecosystems in the Greater Mekong, dedicated to “bridging the quantitative information gap using remote sensing and hydrological models” in order to better understand “spatially distributed hydrological ecosystems services,” outlines the central issues. Whereas “provisioning services” are depicted as goods collected directly from nature, “cultural services” include recreational

opportunities, aesthetic views, education, and spiritual values (Simons et al. 2017). They are complemented by “regulation services,” which—as the name suggests—regulate and mitigate processes essential to human survival, like the supply of water. “Supporting services” are those that do not directly benefit people but rather contribute to other beneficial services, like nutrient cycling, which is crucial for agricultural productivity. While this classification can be questioned, it is indicative of the real challenge experts face in dealing with Mekong water flows, and their enormously varied forms of use. It is these processes and interactions that WA+ wants to quantify, thus making it possible to “achieve equitable and transparent water governance for all users” (16).

When CGIAR published its report, the first phase of the Cambodian WA+ pilot project had just come to an end. It had been conducted as a series of one-year, intensive activities that would showcase the potentials of water accounting. Thus, the pilot created preliminary WA+ analyses of the five major river basin areas in the country. The recipient organizations were the Ministry of Water Resources and Meteorology (MOWRAM), the Ministry of Agriculture, Forestry and Fisheries, and the Ministry of Environment. Other stakeholders included Cambodian universities that received technical support and training sessions. The endpoint was the workshop introduced at the start of this paper.

Prior to the pilot project, an inception report had defined the aim as supporting ADB Cambodia and the ministries in working toward sustainable water management strategies in several ways. First, the WA+ procedure would create monthly estimates of water resources of the five basins. Second, it would generate inputs for future Country Water Assessments and for the next Asia Water Development Outlook. Finally, recipients were to receive capacity building in using WA+, focusing on basic hydrology, geographic information system (GIS) mapping, and remote sensing data, among other things. For one year, ministry and university staff would be trained as competent users of WA+, enabling them to perform the procedures on their own, using software and tools provided as part of the package.

Two ideas were particularly important. As emphasized by the Dutch specialists present at the December 2016 workshop, WA+ provides a coherent and consistent methodology that enable policy makers to track water flows and make better use of available resources. This was complemented by the claim that remote sensing data acquired via open access satellite sources could capture most relevant hydrological and physical processes and would basically be sufficient to make water balance sheets and accounts adequate for managing the river basins. The idea appealed to Cambodian officials, since the country suffers from a lack of baseline data and has a poor hydrological and meteorological system.13 In fact, though, it proved difficult to maintain quite so neat a distinction between free-flowing data from above and the messy ground (see Gitelman 2013; Walford 2017).

To characterize the problems, I turn to James’s pragmatist conception of knowledge. What does it mean, James ([1909] 1975: 33) had asked, for someone sitting in

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13 From 1910 to the early 1970s, data for hydrological and meteorological stations were recorded daily at 50 hydrological stations, but after the war only 20 had been repaired. In 2015, the country had 13 stations that measured water quality data, “38 meteorological stations that record rainfall, 23 that record evaporation, and 14 stations that record wind speed.” Data collection is done manually and “instrumentation is limited” (GSSD 2015: 74).
New England to claim knowledge of “the tigers of India”? And he offered “a very prosaic answer”—“The pointing of our thought to the tigers is known simply and solely as a procession of mental associates and motor consequences that follow on the thought, and that would lead harmoniously, if followed out, into some ideal or real context, or even into the immediate presence, of the tigers” (34). Now obviously James’s tigers and Cambodia’s hydrological processes are very different beasts. For one thing, the latter cannot in principle be encountered as an “immediate presence.” In terms of aspiration, however, we can detect a similarity. After all, WA+ was also presented as leading “harmoniously” to knowledge of water processes and forms of usage.

At this point, James’s description of the requirements for being able to “claim knowledge”—which would inspire Latour’s (1999) notion of circulating references—becomes relevant. We might say, James observed, that a stone sitting in a hole in a field in principle fits another hole elsewhere, but in practice it does not unless someone actually puts it there. Similarly, unless knowledge is concretely “followed through,” it is only “an anticipatory name for a further associative and terminative process that may occur” (James ([1909] 1975: 34n2). Thus, he concluded “to know an object is . . . to lead to it through a context which the world supplies” (35). The making of knowledge about Cambodian water flows, too, turned out to be a matter of leading WA+ through a context already “supplied.”

A quite impressive array of data can be extracted from satellites. Even so, this does not obviate the need for other forms of information, which may, in different ways, be just as remote. Since WA+ aims to support water policy and management, it must establish points of contiguity with the units and categories that matter for those activities. The solution is basically to layer remote sensing data on top of land-use maps that categorize geographical space according to usage. Doing so makes it possible to make relevant distinctions, for example, between protected forests and open deciduous forests, or between wetlands and managed water bodies. But land-use maps do not arrive via satellite, being found rather in Cambodian offices, which thus in principle operate as a kind of Latourian center of calculation. In fact, though, the data held by the offices is generally very patchy, disabling their calculative abilities, and this is one reason why Cambodians are keen to draw on foreign expertise to begin.

Unfortunately, the wealth of remote sensing data did not quite obviate the need for ground-level data. Only the latter would make it possible to validate the water account calculations. However, since a major appeal of remote sensing in the first place was precisely the lack of ground-level data, this kind of validation quickly turned out to be very difficult, if not impossible. The aspiration to harmoniously capture knowledge was thus compromised. The researcher responsible for the pilot, a postdoctoral researcher from UNESCO-IHE, handled the situation to her best ability, simultaneously collecting and analyzing satellite data and liaising with officials about accessing their maps and what relevant information they had.

Rather than making visible and manageable Cambodian water resources through the extraction and processing of “neutral” data, the situation was thus one in which the context “supplied” required ongoing calibration of two incongruent forms of data: one coming from far away satellites and the other (to the extent that it existed) from physically adjacent but in other ways no less distant offices. I now describe how these forms of remoteness met at the project interface.
6 At the Interface

The WA+ pilot contained four work packages. The central components were analysis of the major catchment areas and capacity building. The former entailed acquiring land-use maps, layering them with remote sensing and hydrological data, validating this data against local sources, and preparing water accounting sheets. The latter involved training sessions focusing on central concepts and key distinctions like “blue” and “green” water, the acquisition and use of remote sensing and hydrological data, GIS, and the development and use of WA+ sheets. The inception report stated that the aim was for recipient organizations to become able to perform the procedures independently, thus facilitating more adequate future monitoring of Cambodia’s water resources. During two intensive missions, the postdoctoral researcher analyzed catchment areas and hosted training workshops. In conversation with me, she expressed admiration for the excitement and dedication of the Cambodian participants, “so different from how it is at home.”

In the opening remarks of the concluding workshop, the country director of the ADB emphasized the organization’s commitment to enhance agricultural productivity and support sustainable natural resource management. Underlying the possibilities for improvement of irrigation systems, water governance through farmer user committees, and capacity building at the ministry levels, he said, “is the support of the water accounting system,” which he compared with “how we make appropriate decisions about money in our bank account.” His introduction was followed by the director general of MOWRAM, who described an “alarming picture” of increasing droughts, which could be dealt with only by gaining “accurate data and skills and investment in knowledge.”

At this point, the Dutch professor, flown in due to his reputation and expertise, took the floor. Noting that the main problem in Cambodia is the monsoonal climate, which means that there is too much water for half of the year and too little for the other half, he emphasized the importance of water accounting for adequate water governance. This is why, he insisted, “it should not be looked at like a project, that would be a pity, it should be looked upon as a system that is permanently embedded in government. A continuous activity based on standard data, computed by Cambodians.”

The postdoctoral researcher then took over. To illustrate the power of remote sensing data, she explained the possibility of determining rice production down to grids of 150 × 150 m. This would make it possible to calculate how much water is used to produce a kilo of rice, and thus determine agricultural efficiency. Toggling between maps, she showed areas producing using a 1 m³ of water to grow only 0.2 kg of rice, while other areas grew three times as much. “But water productivity needs to be combined with water availability, otherwise we cannot do policies,” a ministry official interjected. Certainly, the researcher acquiesced, but this is precisely what we can determine with the water accounts. A skeptical field biologist working for an international NGO observed that, after all, satellite data is unable to fully capture the “real

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14 Green water designates the “rainfall distribution across a composite terrain with mixed land use, geological formations, soil types, slopes, elevations, and natural drainage to streams,” while blue water “represents the portion of the net inflow that is not evaporated and is available for downstream use and withdrawals” (Karimi, Bastiaansen, and Molden 2013: 2464).
reality of the field.” Somewhat bluntly, the professor retorted that “this is what we have done for twenty-five years . . . we have done many field visits; we have more than fifty journal articles.”

The water accounting experts were particularly interested in what seemed to be an enormous “utilizable outflow” from the Tonle Sap lake, but the biologist countered that what had been defined as utilizable “almost certainly contributes to fisheries.” Unfortunately, this contribution can’t be quantified, and all that is really known is that “the bigger the flood, the more fish.” At this point, perhaps to deflect the difficulty, the professor turned to the Cambodian officials for information about how much water is set aside for flow to the Vietnamese Mekong delta. He was told that the Mekong River Commission stipulates that “an acceptable minimum” must flow to Vietnam. However, the amount has not been defined, the official continued, as muffled laughter spread in the room, because “if we specify it and are unable to give it, then . . . .”

After lunch, the discussion returned to water consumption. The Dutch experts pointed out that since satellites, after all, cannot quite measure everything it is necessary to also use local data sources. This highlighted the importance of “pulling all knowledge on crops together.” Smiling slightly, a ministry official replied that: “my colleagues from the agricultural ministry can correct me, but I think this kind of information would be difficult to collect.” At current capacities, data is updated for only one province per year, and only for select crops. Then, turning the tables on the experts, he remarked that the ministry was hoping to use the scientifically accurate information provided by the water accounts to guide its own “spot checking.”

By now seeming a bit exasperated, the Dutch professor suggested the need for a workshop on crop mapping. After all, to calculate the water productivity of banana or cassava, “we must at least know where the banana plantations are.” Nodding, an official replied: “So we really need help thinking about how to collect data on crops. Please tell ADB how to help us.” Once again, suppressed laughter rippled across the room. Following another injunction, a senior bureaucrat politely commented: “Thanks for this support in having us check our data.”

7 The Objectivity Trap

The discussions, arguments, and repartees in the WA+ workshop illustrate a characteristic pattern of project interactions.

On one side, outside researchers backed with foreign money make earnest and sustained efforts to generate technical information and scientific knowledge relevant to the significant challenges facing Cambodia, such as water resource management. Operating on the assumption that they are situated at a science-policy interface roughly similar to, although perhaps more rudimentary than, the one they know from home, they offer sensible advice. But given the foreign context “supplied” by the world, their advice is not necessarily sensible. In the words of Richard Rottenburg (2009: 167), it risks leading into an “objectivity trap.”

Rottenburg used this term to designate development negotiations that rely on procedural objectivity as protection against differences in basic assumptions. These are discussions, as he wrote, that give “the impression that the subject . . . is whether there
are five or three apples in the basket when in reality negotiations are trying to ascertain what is meant by ‘basket’ or ‘apple’” (195). Or mangos.

One of the calculations discussed in the workshop aimed to approximate Cambodian mango productivity. To do so, the postdoctoral researcher had distinguished crops as either cereals or noncereals, and as either rain-fed or irrigated. However, while satellite data enabled her to differentiate rice fields from trees, it was insufficiently precise to single out mango trees. For the calculation to work, it had thus been necessary to assume that within a given 150 × 150m cell—the satellite resolution—all trees were mango. Since this assumption was hardly foolproof, the researcher was now concerned about getting some kind of validation.

However, her question about the typical yield of mangos led to general confusion. Some pointed out that yield varied from area to area, and others said it depended on the type of tree. To keep the discussion focused, the moderator drew attention to a calculation that seemed to show that rain-fed mangos were more productive than irrigated ones. What might explain this odd result? Uncertainly, the researcher replied that since “theoretically, you should get more from irrigated mango, maybe the irrigation system is not working well, or the management practices are bad.” The professor added that it was probably due to climatic influence of some kind. At this point, a senior official raised his hand. “If we talk mangos,” he said, “irrigated mango does not exist in Cambodia. If you show this table to farmers, they will laugh.”

While researchers began by addressing mango productivity as in principle amenable to objective confirmation, the number dissolved in a cloud of issues relating to remote-sensing cell sizes, mixed crop usage, and questions of irrigation. In the end, it seemed quite unclear what was a mango, where it was, and how one recognized it. What was established, instead, was the lack of an available procedure for ascertaining the facts of the mango.

It was the task of the workshop moderator to mediate these confusing interactions and prevent them from escalating into a full-fledged comedy of errors. Successful project interactions require that technical rationality is performed in a way that does not put Cambodian officials in a bad light even if they can’t live up to its demands. But it equally depends on preventing short-term visitors’ lack of knowledge about local conditions from making them look ignorant. The necessity of ‘moderating’ performances, the incongruences of which extend to assumptions about the science-policy interface itself, made the moderator’s task a delicate one that required tact and constant vigilance.

As the meeting was coming to an end, the moderator repeated that since ADB has invested millions of USD in Cambodian agriculture and irrigation, it is in the organization’s best interest to figure out what is happening. Carefully toning down some of the more extravagant ideas and promises that had emerged during the workshop, she indicated willingness to try to procure funds for a follow-up project with the ultimate aim of establishing a ministerial department working on water accounting.

The final project report concluded that a large portion of Cambodia’s consumed water appeared unbenevolent. Strategic land-use planning would make it possible to get more economical services out of it. Recommendations included the development of better seasonal water storage, multipurpose infrastructures, a “smart” subsurface drainage system, expansion of irrigation systems, and an increase in forest cover. The conditions of possibility for achieving any of these goals were not addressed, since
they were outside the scope of the pilot project and indeed also outside the area of the competence of the researchers.

If the “mango discussion” indicates the difficulties of pursuing “objectivity” in a context that doesn’t support it, the final report thus indicates the paradoxical consequences of sticking to the results thus obtained: There is an almost complete disjunction between the catalogue of solutions and the world in which they would have to operate. These disjunctions, however, also relate to incongruences between the performances taking place at the development interface and different political performances happening elsewhere.

8 The Incongruence of Performances

ADB did obtain some additional funding, and as the WA+ pilot entered its second phase, the guiding idea was still that the project would “take on a momentum” (Rottenburg 2009: 134) of its own, eventually reaching the intended destination: mainstreaming in the ministries.

For mainstreaming to have a chance, two broad conditions must be met. On the one hand, the necessary technical expertise has to be transferred to Cambodian officials. On the other hand, there has to be an alignment of interests in making it happen. Let us consider how the performances at the project interface are oriented to this double demand.

Evidently, technical and scientific expertise is mainly in the hands of the visiting experts and this is why they are invited in the first place. As far as the Dutch professor was concerned, the aim was to transfer important but not too technically demanding knowledge about water accounting, which should in principle be amenable to local adoption. As noted, the postdoctoral researcher put serious effort into organizing intensive workshops, which presumably did transfer knowledge about hydrology, remote sensing, and the making of water account sheets.

Meanwhile, many Cambodian participants were already familiar with the conventions of technical rationality, having joined projects previously. Moreover, given the severe problems facing the country’s environments and ecologies, many were undoubtedly genuinely sympathetic to modern improvement schemes. Some were probably fully committed to the modern “will to improve.”

However, if we consider the more general alignment of interests, we are quickly faced with incongruences. While the funding body attempted to create a science-policy interface through which knowledge could be transmitted, and while the professor spoke confidently as if such an interface actually existed, Cambodian participants were well aware of the discrepancy between performances at the project interface and those leading to ministerial decisions.15 For previously mentioned reasons, including the famously empty coffers of Cambodian ministries, the centrality of “personalized networks of loyalty cemented through the provision of financial contributions” (Hutchinson et al. 2014: 86) to politics, and the centrality of strategic, theatrical

15 Cambodian officials are, of course, not in internal agreement. Serious infighting about turf and access to funds takes place between different ministries and government offices. Such disagreements are not voiced at the project interface.
displays of benevolence, technical rationality is indeed largely irrelevant for these political performances.

Despite what unfolds at the project interface it is thus rare that the alignment of interest reaches much beyond it. And yet, it is crucial that such alignment is continuously and adequately performed, since projects will otherwise be disrupted or put in jeopardy.

Two performances of project realities and their relation to broader Cambodian realities thus occur simultaneously. But awareness of this is not evenly distributed. Knowledge about the incongruence between what is performed at the project interface and its relation—or lack of relation—to what happens afterward, as part of “backstage” politics, is, unsurprisingly, held mainly by . . . Cambodian participants. Knowledge about what is likely to happen is perhaps held only by a few senior officials.

9 Interactive Effects

Development projects in Cambodia are sites where divergent forms of politics, and different conceptions of the relation between politics and techno-scientific expertise, intersect. This has consequences for what happens at the project interface and beyond. From the “general chaos in the field” (Rottenburg 2009: 156) a pattern emerges.

When development projects do not generate the intended results, commentators routinely characterize the situation in terms of failure, often referencing a “lack of political will.” The observation that even carefully thought out and scientifically sound plans have great difficulties achieving lifespans beyond project time frames lends plausibility to the description. Institutional analyses characterize the problems in terms of dysfunctional ministerial arrangements or budget structures and propose improvements in accountability and transparency. However, these suggestions run into the same kinds of interface and implementation problems as those experienced by technical development projects. As transparency and accountability initiatives are indefinitely deferred, they simply reconfirm the lack of political will at another level. If one approaches the scene with the assumption that what is performed conforms, or should conform, to the scripts of a Western-style science-policy interface, one can indeed hardly end anywhere else than with explanations highlighting “failures” and “lack of will.”

Failure is thus on display when recommendations are not followed up, initiatives not taken, and “mainstreaming” postponed. The situation seems to exemplify Butler’s (2010: 153) argument that failure and breakdown is “constitutive of performativity,” which inspired Alice Bamford and Donald Mackenzie’s (2018) more recent “counter-performativity,” a concept they use to describe situations where the use of a model leads to creating phenomena at odds with it. Ferguson’s (1990) “anti-politics machine” could indeed be viewed as counterperformativity writ large at the level of development

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16 While short-term visiting researchers often take project performances as indicative of a more or less shared reality, experts and development workers who work in Cambodia for longer periods become more or less knowledgeable about these performance incongruences. Long-term residents and visitors with experiences from other development contexts delight in comparing the situation with African or Latin American countries. Regardless, they still have little choice but to work within the project form.
aid as a whole. The “lack of political will” characteristic of Cambodian policy makers might similarly be viewed as an integral counterperformative effect of development’s “will to improve.”

Often, however, these valuable diagnoses give the appearance that only a single—or at least clearly dominant—performance is happening at a time. It is this dominant performance that either “fails” or gives rise to self-compromising effects. And if project goals are not met, there is indeed a performance failure—from the point of view of the development project itself. Likewise, if Cambodian policy makers do not mainstream projects, there is indeed a lack of will—to conform to the “will to improve.” The asymmetrical emphasis on the performances of development and the expectations of its practitioners leaves the agency of aid partners and recipients in the dark. Yet, they do have agency, and engage in their own performances, only some of which overlap or align with those of development projects.

Rather than one performance breaking down from within, we are thus looking at several incongruent performances occurring simultaneously. However, some of these performances occur under the radar of some of the performers. Rather than constitutive, failure is a perspectival effect.

Accordingly, development projects and interface performances appear quite differently from the point of view of Cambodian political performances. As noted, the continuous tapping of funds from international donors is crucial to ensuring the stability of both the structural and theatrical dimensions of the political system. Through various opaque channels, development funds are convertible into symbolic and material goods that benefit individuals, departments, and ministries. Seen from there, the water accounting project was by no means necessarily a failure. To be sure, it did not lead to mainstreaming, but that was hardly expected anyway. Contrary to Ferguson’s (1990) analysis, it also didn’t lead to any significant extension of state power. However, it did lead to traveling opportunities, provided access to some new technical skills, enabled the transfer of some resources, and contributed in its own small way to the maintenance—the performative reproduction—of the theater state itself. No wonder participants were so keen on a follow-up.

10 Sparks and Fizzes

Butler (2010: 147) argued that over time “performativity starts to describe a set of processes that produce ontological effects, that is, that work to bring into being certain kinds of realities.” I have sought to illuminate how these ontological effects manifest at the development project interface and spread outward. By tracing development objectives as they are led “through a context which the world supplies,” I have also tried to elucidate some consequences of there being always more than one performance, and of

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17 I don’t think there is any inherent theoretical reason for this, but, empirically, analyses often proceed as if it were the case.

18 I am not aware of any follow-up after the second phase of the project ended. Water accounting is not mentioned on the homepage of the Ministry of Water Resources and Meteorology website, which does describe a different ADB-funded project on uplands irrigation and water resource management. See www.mowram.gov.kh, accessed 23 November 2017.
the criteria of success and failure being not only multiple, but often incongruent, or indeed incommensurable.

Visiting experts seek to demonstrate the importance of water accounting by analyzing data, organizing workshops and building technical capacity, all with a view to eventual mainstreaming. Cambodian officials strongly support the agenda, participate in the activities, and learn new skills and techniques. Meanwhile, gaps propagate in the project interstices. Data is unobtainable due to a lack of infrastructure or resources. Even crucial information seems not to exist. But although there is not yet any basis for mainstreaming, follow-up projects would certainly be beneficial, should funds be made available.

As similar processes are repeated across the development field, a pattern of sparks and fizzles emerges. Projects are continuously planned and funded by numerous development organizations in collaboration with government partners. Excitement grows, and as money begins to flow, experts arrive, and activities are carried out, there is a burst of energy. After sparkling brightly for a year or two, the projects fizzle out, most leaving hardly any traces. Attention turns elsewhere to new agendas, opportunities, and technical solutions. You can rest assured that new projects are underway.

References


19 Although derived from specificities pertaining to the Cambodian development scene, I venture that this broader pattern may be encountered, with variations, in many contexts where technical development projects are conducted while a science-policy interface is missing and conceptions of politics and objectives vary.


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