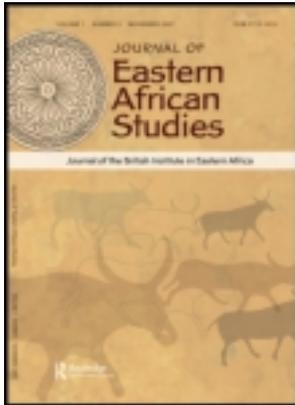


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Martin Walsh ^a

^a Wolfson College, University of Cambridge, UK

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The not-so-Great Ruaha and hidden histories of an environmental panic in Tanzania

Martin Walsh*

Wolfson College, University of Cambridge, UK

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Water is one of the world's most contested resources, and Africa's river basins are no exception. In December 1993 the Great Ruaha River upstream of Tanzania's Mtera Dam stopped flowing for the first time in living memory. This became a matter of national concern in 1995 when electricity shortages and rationing in Dar es Salaam were blamed by the national power supply company (TANESCO) on the continuing drying-up of the Great Ruaha. Since then different institutions and interest groups have sought to explain the river's increasing seasonality, focusing on resource use in and around its immediate source, the Usangu wetland, and laying the blame on different groups of resource users. In 1998 the core of the wetland (Ihefu) was gazetted as part of a new game reserve, and fishermen and livestock keepers were forcibly removed. Increasing government concern over power shortages culminated in the mass expulsion in 2006–07 of livestock keepers and their cattle from Usangu and Mbarali District, large parts of which were to be incorporated in an expanded Ruaha National Park. This was the largest eviction of its kind in recent Tanzanian history, widely condemned by NGOs and in the national and international media. This article examines in detail the development of the environmental panic and events which led to this eviction, highlighting the behind-the-scenes role played by actors and interests in the public and private sectors in fostering the panic and its controversial outcome.

Keywords: conflict; conservation; pastoralism; Tanzania; Usangu; water

In his speech at the official opening of parliament on 30 December 2005, Tanzania's newly elected president, Jakaya Mrisho Kikwete, sketched out his government's agenda for "environmental conservation" and singled out particular problems for attention. One of these was the worrying situation in one of Tanzania's most important sub-catchments:

A few areas need special and urgent measures to protect the environment because the situation has deteriorated to an extent that it affects other sectors. One such area is the Ruaha River Basin, which connects almost all major river systems in the country. We have watched as the situation at the Mtera Dam deteriorated. The Great Ruaha River is no longer great – it is almost dry in some parts. The Government at all levels should now intervene and be ready to be held to account for this situation. This damage must be stopped, and reversed.¹

*Email: mtw30@cam.ac.uk

In response to this and subsequent exhortations Kikwete's government did indeed take "special and urgent measures" to protect the Great Ruaha. These actions focused on the immediate origin of the river: the wetlands of Usangu in Mbarali District, Mbeya Region. In May 2006 hundreds of cattle herders and their animals were evicted – not for the first time – from Usangu Game Reserve and the permanent Ihefu swamp. In June it was announced that this protected area would be upgraded to become part of an expanded Ruaha National Park, and between November 2006 and January 2007 large numbers of livestock keepers, most of them Sukuma agropastoralists, were forced to leave Mbarali District together with their herds. According to one (probably exaggerated) estimate, more than 300,000 cattle were driven out of the district, around two-thirds of them to Lindi and Coast Regions in the east of the country. This drastic eviction was roundly condemned by pro-pastoralist and civil society organisations in Tanzania, who pointed out that not only were livestock and their keepers in Usangu being blamed for environmental crimes that they had not committed, but also that the process of eviction had involved a number of human rights violations. In April 2007 the government established a special Commission of Enquiry to investigate these allegations, and its completed report was submitted to the president in early June 2007. Despite questions in the Tanzanian parliament, neither the report nor its findings have yet been made public (as of November 2010).²

Environmental narratives and hidden histories

In this article I will examine key moments in the development of the environmental panic³ that the new president and his government helped to bring to this contentious juncture. The role played by uncorroborated hypotheses and questionable degradation narratives in generating this panic has long been recognised in the grey literature,⁴ but not by the majority of government officials and in the country at large. Recent studies of project interventions in Usangu have highlighted the difficulties that faced researchers when they attempted to counter long-cherished environmental orthodoxies about the causes of hydrological and ecological change in the Great Ruaha catchment.⁵ The persistence of these local narratives of environmental degradation invites comparison with other well-known Tanzanian examples, and the Great Ruaha case can be analysed as another instance of the phenomenon of protected area expansion, promoted by both government and non-government agencies, and with predictably negative social and economic consequences for excluded resource users.⁶ This is, however, only part of the story. Closer examination shows that the panic has been shaped by shifting constellations of political, economic and personal interests, employing different and sometimes changing degradation narratives, and producing an unpredictable mixture of both intended and unintended effects. Awareness of the complex interplay of agency in this case undermines any simple structural account of events, including the lazy explanation of environmental narratives in terms of the meta-narratives of environmentalism and wider discourses of development.⁷

The sections which follow describe three significant episodes in the evolution of the Great Ruaha panic. I refer to these as "hidden histories" because they reveal the importance of interventions by agents whose role has generally been hidden from view or misunderstood. The main protagonists have all had good reason to conceal or downplay their influence, and it is not surprising that many aspects of their

involvement in these events remain hidden. My access to these histories has been both privileged and partial. As a researcher-cum-consultant and sometime close observer of the events described, I have been able to record and collect relevant data at different stages during the development of the panic and in a variety of different institutional contexts.⁸ However, the complexity of events and the nature of their temporal and spatial extension precluded the kind of participation that conventional ethnography demands. As a study of contemporary institutions and multiple sites of decision-making, this article shares in the methodological challenges that vex the anthropology of development and development policy.⁹ My reconstruction of agents' actions and intentions is therefore necessarily based on a mixture of direct observation, actors' statements and recollections, and a reading of available documentation. I make no apology for writing from a personal perspective, and acknowledge that my description of these episodes is provisional and open to challenge.

Mismanagement at Mtera and shifting the blame upstream

The Great Ruaha is the main tributary of the Rufiji River and one of Tanzania's most important rivers. It is formed by number of smaller rivers that rise in the Southern Highlands and merge in the seasonal and permanent wetlands of Usangu (see Figure 1).¹⁰ The Great Ruaha emerges from the perennial Ihefu or Utengule Swamp in the north-east of Usangu and winds along the south-eastern edge of Ruaha National Park, before being joined by the Little Ruaha River and flowing into the Mtera Reservoir, which stores water for the generation of hydroelectric power at both Mtera and Kidatu, 170 km further downstream. The Kidatu Dam, which is

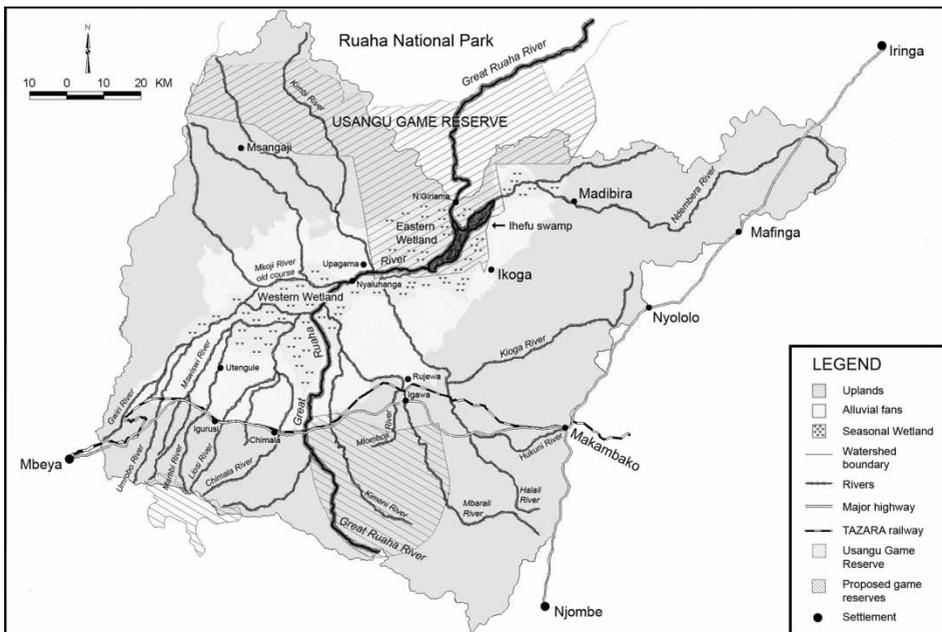


Figure 1. Map of the Usangu Basin, showing 2001 boundaries. Source: SMUWC Project "Baseline 2001".

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mainly for hydropower production, was constructed in 1970 as part of the Great Ruaha Power Project. In 1976 its generating capacity was doubled to 204 MW. The Mtera Dam, completed in 1980, was originally built to provide storage for Kidatu; in 1989 a hydropower plant with a capacity of 80 MW was added. Following completion the two plants in the Mtera–Kidatu system provided just over half of Tanzania’s total installed generating capacity and over three-quarters of its hydro-power.¹¹ It was not long, however, before serious problems began to occur, generating national panic about the causes and consequences of failure in the system.

Before 1991 the water level at Mtera generally dropped between July and December every year but recovered in the following six months, mirroring the alternation between dry and wet seasons in the catchment of the Great Ruaha. In 1991, however, the reservoir failed to refill between January and June, and the water level fell to a new low in the second half of the year. 1992 followed a similar pattern, and the reservoir dropped to little more than a metre above minimum storage level. It recovered slightly in 1993 but fell to a record low of almost empty condition in December 1994.¹² These unprecedented falls in the level of the reservoir had a direct negative impact on hydropower generation downstream. In September and October 1992 the state-owned Tanzania Electric Supply Company (TANESCO) imposed a regime of power rationing which had serious consequences for industry in Dar es Salaam. Blackouts continued into 1993, and TANESCO was forced to institute load shedding again in 1994 and 1995.¹³ These power cuts were politically as well as economically damaging, because they affected both Zanzibar and the Tanzanian mainland in the run-up to the nation’s first multi-party presidential and parliamentary elections in October 1995. Initial press reports blamed the situation at Mtera on low rainfall and drought in the catchment of the Great Ruaha. But research undertaken for a FAO (Food and Agriculture Organisation of the United Nations) project in 1992 indicated that climate change could not explain falling levels in the reservoir.¹⁴ Attention turned instead to the possible impacts of resource use and environmental degradation in the catchment. These included abstractions of water for paddy farming in the south and east of Usangu. Irrigated rice cultivation had a long history there, and was developed during the colonial period by the local Baluchi community, by Nyakyusa and Ndali immigrants from the south and west, and later by the British authorities.¹⁵ The FAO *Rufiji Basin Report* of 1961 envisaged a massive programme of irrigation development in Usangu,¹⁶ and although this was not carried out, consultants continued to recommend the expansion of both state and smallholder rice production. The authors of a 1978 report on *The Development Potential of the Usangu Plains of Tanzania* advised that further immigration into Usangu would be needed to achieve this, and suggested ways in which migrants might be assisted.¹⁷ In the end this proved unnecessary, but Nyakyusa and other immigrants continued to arrive, growing rice on and around smallholder irrigation schemes and the state farms at Mbarali, Madibira and Kapunga that were operated by the National Agricultural and Food Corporation (NAFCO).

Although it was recognised in the 1978 report that irrigation development in Usangu might have negative repercussions for water users downstream, and Mtera Dam in particular, no further consideration was given to these.¹⁸ This lack of concern turned to alarm in the early 1990s when the Great Ruaha River downstream of Usangu began to stop flowing for part of its course at the end of every dry season. In 1994, for example, it is reported to have been dry at Msembe, Ruaha National Park headquarters, from 17 November to 15 December. In 1995 it remained dry for

twice as long, and since then the river has ceased to flow for varying periods of up to three months or more every year.¹⁹ The Great Ruaha has become, in effect, a seasonal river between the outflow from Usangu and its confluence with the Little Ruaha. Given the importance of the river for wildlife and game viewing in Ruaha National Park, this change in flow was the cause of much consternation to the park authorities (Tanzania National Parks, TANAPA), as well as tour operators and local conservationists. It seemed obvious to many observers that the blame for this situation lay in the misuse of resources upstream of the park, and that the drying of the Great Ruaha was responsible for the fall in water levels at Mtera. Although at least one early assessment was cautious,²⁰ others were not. Participants in a planning workshop at Msembe in June 1995 debated the issues and agreed that urgent action was required to tackle the problems of resource use upstream of the park. The Chief Park Warden and a colleague identified overgrazing in Usangu as the principal cause of degradation,²¹ whereas expatriate members of the Friends of Ruaha Society (FORS), a local NGO (non-governmental organisation), argued that the retention of water by the NAFCO farms at Mbarali and Kapunga (which was completed in 1992) was equally important.²² The management of TANESCO also promoted the view, both then and later, that irrigation and land degradation in the catchment were the main causes of the crisis in the Mtera–Kidatu system.²³

However, there were a number of weak links in this chain of blame from Mtera to Usangu via the drying Great Ruaha. Research conducted by the SMUWC Project (Sustainable Management of the Usangu Wetland and its Catchment, 1998–2002) and confirmed by RIPARWIN (Raising Irrigation Productivity and Releasing Water for Intersectoral Needs, 2001–06)²⁴ has shown that there is no significant connection between recent changes in the flow of the Great Ruaha and the condition of the Mtera Reservoir. The drying of the river is a dry season phenomenon, and the difference between the low flows of the past and the no flow of the present is so small that it has little effect on water levels at Mtera. The reservoir is filled by the water that flows into it during and immediately after the wet season, when the Usangu Basin overflows and spills into the Great Ruaha. Analysis showed that the total volume of water flowing down the river and into the reservoir has not changed significantly over time. The situation at Mtera could not therefore be blamed on water use or other environmental changes in Usangu or the wider catchment. The seasonal drying of the river appeared to be caused mainly by increasing diversions of water for dry season rice growing and also the seasonal wastage of water in the large NAFCO projects. Irrigated cultivation in the wet season and livestock keeping in the wetland were not responsible for the dry season problems of the river.²⁵ Unfortunately this understanding of the situation was not available until SMUWC was underway, and it was resisted by people and institutions with a vested interest in the degradation narratives that were developed in the early years of the environmental panic.²⁶

What then was the cause of the problems at Mtera? The simple answer is mismanagement of the reservoir by TANESCO – far too much water was being released to generate electricity downstream. When the Mtera–Kidatu system was established it was provided with operating rules that were based on a model of the system as it was. These rules were not redrawn to take full account of subsequent developments, in particular the commissioning of the hydropower plant at Mtera that meant that the reservoir was no longer just providing storage for Kidatu. According to the then Iringa Regional Hydrologist,²⁷ problems relating to the

overuse of the reservoir were first noticed in 1989, after completion of the new hydropower facility, and questions were raised about this in the following year. A problem with the turbines at Kidatu further complicated the operation of the system. In 1992, when he presented a paper to colleagues about the Mtera question,²⁸ discussion within the Ministry of Water, Energy and Minerals (MWEM) became quite heated. An internal enquiry supported his critical analysis of the problems at Mtera, but the implication that TANESCO had itself caused the national power crisis was politically inconvenient, and no corrective action was taken. MWEM was at this time headed by the future President Kikwete, holding his first full ministerial post.²⁹ The Regional Hydrologist was later asked again to explain his views – on this occasion by both his own ministry and the Office of the Prime Minister – but again no action was taken either to fix the problems that he had identified or to modify official narratives about the causes of the nation's electricity shortages.

Nonetheless, rumours of the real causes of the crisis did begin to circulate. Discussing different hypotheses that had been put forward about the shortage of water at Mtera, one group of researchers wrote in 1996:

Also, there is a hypothesis around the technical aspects of power generation. There are those who are content that more water than allowed by the dam designs was let out for technical reasons. Unfortunately this aspect is beyond the competence of the authors of this paper. But logic demands that if the case was as simple as it is put, then the mistake would have been corrected subsequently and the problem would not have been a lasting one as it now seems to be the case. In any case this aspect has been kept top secret by the responsible officials probably to avoid embarrassment over “mismanagement” of the Ruaha Basin.³⁰

In February 1997, together with other consultants on the project design mission for SMUWC, I heard a similar account of mismanagement of the reservoir at Mtera from a senior employee in the Ministry of Water. I omitted this from the draft project document because I knew that it would undermine the economic justification for the project and might adversely affect its chances of funding by the British government.³¹ The final project document, revised with inputs from senior advisers in the Overseas Development Administration (ODA)/Department for International Development (DFID), placed considerable emphasis on the anticipated benefits of SMUWC for downstream consumers of hydropower as well for people living in Usangu and its catchment.³² One consequence of this was that TANESCO was considered an important “stakeholder” in the project and so was represented on the steering committee of SMUWC. The relative weakness of TANESCO's claim to this status was exposed during a meeting of the committee in December 2000 when its representative tabled a paper about the Mtera–Kidatu system. This revealed that there were indeed problems with the operation strategy and that sometimes too much water was released from the reservoir at Mtera.³³ The author was questioned about this by other members of the steering committee, and admitted that these problems had indeed contributed significantly to past failings in the system.

More recent modelling of the Mtera–Kidatu system and re-examination of its failure in the early 1990s have shown that a flawed operational policy and mismanagement of the reservoirs were almost certainly the cause.³⁴ The following passage is taken from the abstract of one of these studies:

Although the Great Ruaha River has been drying up in recent times during the dry season, the impact on annual flows into the Mtera–Kidatu Reservoir System was noted to be insignificant. However, investigations about the possible cause of the failure of the reservoir system have found that the actual amount of the water that was being released from the Mtera Reservoir as spill must have been much higher than what had been recorded. It was also evident from the investigation that while Mtera Reservoir was “struggling” to get refilled in certain years the Kidatu Reservoir recorded large amounts of spill more [than] enough to bring the Mtera Reservoir to its full condition.³⁵

The evidence for mismanagement presented in this and other studies is largely circumstantial. We lack detailed accounts of exactly how and why some of the critical decisions were made in TANESCO and associated government ministries. Why was the question of mismanagement avoided, and the finger of blame pointed upstream instead? The possibility of political interference has already been suggested, and this was certainly an important factor in the development of another scandal that had its origins in the power blackouts of 1992–95: the corrupt deal that emerged from the search for alternative sources of electricity.³⁶ It may also be that individual employees did not realise that mistakes were being made and/or were unwilling to admit to them when they did. Subsequent power crises, including the severe rationing of early 2006, indicate that the same mistakes are still being made, as does President Kikwete’s intervention at the very start of his term of office.

The hidden history of Usangu Game Reserve

The second episode I want to discuss concerns events in Usangu itself. When the drying of the Great Ruaha between Usangu and Mtera became an issue, different parties suggested that both irrigated rice cultivation and cattle grazing in Usangu might be to blame. The SMUWC Project was designed in February 1997 with the working hypothesis that irrigation was the main culprit. The consultant hydrologist on the design mission could not envisage any mechanism by which livestock and their keepers were having the major hydrological impacts that were alleged, though they might affect the ecology of the wetlands of Usangu in other ways. At the same time I noted that the size and political significance of the rice-growing population in Usangu relative to that of immigrant livestock keepers (see Table 1) meant that the latter were more likely to be identified as scapegoats for the environmental problems of the area. It would, on the other hand, be more difficult for a project intervention to tackle and change the practices of a group that included prosperous farmers and the state-owned NAFCO farms. As it turned out I was right, though I was not then aware of all of the factors that would contribute to the demonisation of the Sukuma and their herds of cattle.

One factor that was known was existing antipathy to the immigrant Sukuma and their agropastoral practices. Sukuma from the north of Tanzania began to move into Usangu with their herds in the mid-1960s, attracted by the relative abundance of land and good grazing, and taking advantage of the freedom of movement and settlement that the newly independent state allowed. In the early 1980s, when I first did research in Usangu, relations between the Sukuma and their neighbours in Usangu were characterised by a mixture of economic co-operation and inter-ethnic conflict, sometimes escalating into violent disputes over access to pasture and crop residues. In the early 1990s another anthropologist found that local resentment of the

Table 1. Estimated population of Usangu in 1990 by origin and primary mode of livelihood.³⁷

Group	Pop. (est.)	% of total	Additional notes
Indigenous Sangu	44,076	27%	Like most of the inhabitants of Usangu, the Sangu are mixed farmers; a relatively small number specialise in cattle herding.
Immigrant cultivators	88,900	55%	The majority of these farmers are Nyakyusa from the south-west; also included in this category are members of neighbouring ethnic groups (e.g. Hehe, Bena, Wanji and Safwa) and a small but influential community of Baluchis.
Immigrant agro-pastoralists	28,933	18%	This number included an estimated 19,320 Sukuma (12% of the total population) and 7,254 Il-Parakuyo Maasai (4%).
Total	161,909	100%	

relatively cattle-wealthy Sukuma was encapsulated in an interlocking series of degradation narratives:

It is common to hear Sangu and other immigrant herders blame pastoral resource scarcity and rangeland degradation on the Usangu Plains on Sukuma migrants. Ecological problems attributed to Sukuma migration include a high incidence of livestock diseases, especially tick-borne diseases, overcrowding and overgrazing on rangelands, and pasture destruction. In addition, Usangu's grasslands have undergone severe bush encroachment in the last 40 years. Usangu's pastoralists blame the large size of Sukuma livestock herds, Sukuma resource use practices, which they consider destructive, their unwillingness to cooperate in managing Usangu's rangelands sustainably, and, their lack of long-term commitment to place.³⁸

These local narratives may or may not have been influenced by the wider perception that the expansion and southwards migration of the Sukuma was triggered by overcultivation, overgrazing and environmental degradation in their homeland. Politicians and policy makers, though, were in a position to connect local and regional narratives about the environmental damage caused by Sukuma land use practices, and this is precisely what happened when the drying of the Great Ruaha focused outside attention on resource use in Usangu.³⁹

I have already referred to the concern about the Great Ruaha and human activities in Usangu expressed by the TANAPA management and others associated with Ruaha National Park, where the Great Ruaha was a critical resource for wildlife populations, especially in the dry season. The park authorities were also interested in the northern part of Usangu for another reason: its potential role as a buffer-zone, helping to protect the park and its wildlife from poachers, honey collectors, and other forms of encroachment. But there were also others with a direct interest in the diminishing wildlife estate of Usangu, an interest that brought them into direct conflict with the livestock keepers who grazed and watered their cattle on lands that had once teemed with game. These were two competing groups of hunters: members of the Mbeya branch of the Hunting Association of Tanzania (HAT), which represented resident hunters, and Usangu Hunting Safaris Ltd, a Baluchi-owned

company based in Rujewa, the headquarters of Mbarali District. This company held tourist hunting concessions in both the Utengule Swamps Game Controlled Area and the adjoining Usangu Open Area, where the resident hunters represented by HAT also hunted.⁴⁰ In order to increase their access to game and exclude competitors (the Mbeya hunters) and other resource users (immigrant livestock keepers), the Baluchis agitated for the establishment of a game reserve in addition to or in place of the existing game controlled area.⁴¹ When environmental degradation in and around the permanent wetland of Usangu became an issue of much wider concern, they seized on this as an ideal opportunity to press their case.

Usangu Hunting Safaris Ltd was founded in 1989 by Hassan Mulla, a prominent member of the Baluchi community in Rujewa. According to some accounts a game reserve had already been mooted before this;⁴² a proposal was certainly on file in the Mbeya Region Natural Resources Office soon afterwards.⁴³ In 1992 the Regional Game Officer (RGO) wrote to the district authorities (then in Mbeya) about this proposal and it was approved by them the following year. It was passed by the Regional Development Committee on 23 September 1993 and then sent to Wildlife Division headquarters in Dar, initiating a long process of further scrutiny, including consultation over the proposed boundaries of the reserve.⁴⁴ Although the Mbeya RGO took the leading public role in developing and promoting the game reserve proposal, other wildlife officers alleged in private that he was “in the pocket” of Usangu Hunting Safaris Ltd and pushing for the upgrading and expansion of the protected area on their behalf. This was consistent with other accounts of the company’s *modus operandum*, and indeed reflected widespread practice in Tanzania’s hunting industry.⁴⁵ Corruption cannot be proven in this case, but there is no doubt that the establishment of a game reserve in Usangu was to the advantage of the hunting company – assuming that they could also secure all of the hunting blocks within it.

The Ruaha National Park authorities had a separate and entirely legitimate interest in promoting the development of a new and stronger protected area along its southern boundary. The Great Ruaha and Mtera crises injected new life into the different arguments for the creation of a Usangu Game Reserve, and the whole question was debated at length in a park planning workshop held at Msembe, Ruaha National Park headquarters, in June 1995.⁴⁶ The Mbeya RGO prepared a seven-page paper outlining the causes and consequences of environmental degradation in Usangu and the case for a game reserve:

Short rainfalls of 1991/92, clearing of forests and irrigation was said to be the main causes of Mtera dam low water levels. But of late it has been discovered that there is a lot of livestock in Usangu plains. It is estimated that there are about 2 million herds of cattle in Usangu. These animals and in such big numbers have destroyed grass cover and water channels. From these effects the water flow does not reach the Great Ruaha River and thereafter Mtera dam. The removal of grass cover by livestock also exposes water to vast evaporation. Since Usangu is a hot area there is no doubt that a lot of water is lost through evaporation.

One animal can drink up to 60 lts of water per day. 2 million animals will drink 120 million litres of water per day. Water use through drinking by livestock is another cause of nonflow of water to Great Ruaha river. It has also been noted that there is no better and proper use of water in homes and in irrigation and these uses cause Mtera dam to have low water levels.⁴⁷

The destructive impacts of bush firing, bush clearing and charcoal-making were added to this list. Subsistence and commercial poaching were also highlighted as threats to the wildlife of Usangu. On the plus side:

Although the population of wildlife in Usangu is not big, we still do some wildlife utilization. In Usangu we have a company hunting for tourists. This company generates revenue to the government. It also saves solving the problems facing the people living close to game areas (villages). A good example is the recent construction of a dispensary at Upagama village by Usangu Hunting Safaris. Also the meat not used by the client during the course of hunting is provided free among the villages. The company also employs local staff. The villages also get a 25% of the total money accrued from wildlife utilization.⁴⁸

In 1996 the Chief Park Warden and a researcher from the University of Dar es Salaam produced a much longer and more comprehensive report along the same lines, with a near-identical title but a more cautiously worded and qualified version of the RGO's testimony to the virtues of the tourist hunting company.⁴⁹ This report also included sections on "Threats to the existence of Usangu/Utengule plains" and "Indicators of habitat degradation and environmental deterioration observed in Usangu plains," and it reproduced an earlier account by FORS members of their own observations on the situation in Usangu.⁵⁰ Following this an independent technical report about ecological change in Usangu was written by researchers in the Institute of Resource Assessment (IRA) in the University of Dar es Salaam. This did not explicitly make a case for the game reserve, but it did deploy many of the same arguments, including hypotheses about the negative impacts of cattle-herding, and so added further academic weight to the pro-reserve and anti-Sukuma cause.⁵¹

In February 1997, when the SMUWC design mission visited the Mbeya Regional Commissioner (RC), Basil Mramba, he gave us his own take on environmental degradation in Usangu, emphasising the damage caused by Sukuma and other livestock keepers, and citing the IRA report. He outlined his plans for the "Botswanisation" or modernisation of livestock production in the region, and told us that if destocking and other measures failed he would be prepared to use the army to enforce the removal of cattle from Usangu (providing that such a deployment was sanctioned by the government).⁵² We were told by both the RC and RGO that the formal description of the game reserve was in the Attorney-General's Chambers in Dar, though adjustments were still being made to the proposed boundaries of the reserve following complaints from the villages that would be affected by its gazettment.⁵³ One of these was Upagama, where the dispensary constructed with assistance from Usangu Hunting Safaris Ltd and other village buildings were under threat. We later spoke to the village chairman of Upagama, and he told us that although some Sukuma herders had already moved downstream to Mtera, many others would continue to use the Ihefu Swamp in the coming (1997) dry season. He predicted that it would take two to three years to educate them not to graze in the reserve – unless it was protected by 200–300 armed guards.⁵⁴ As it happens Sukuma continued to graze their cattle in the protected area and it eventually took the kind of armed operation envisaged by the RC to drive them out.

The year 1998 was a good one for Hassan Mulla and his family-run hunting outfitters. The company expanded dramatically when he acquired the Tanzania Wildlife Corporation (TAWICO) and the assets of this former government parastatal, which included a number of hunting blocks in different parts of the

country. In July 1998 the new Usangu Game Reserve was officially gazetted and the Wildlife Division granted the enlarged Usangu Hunting Safaris Ltd/TAWICO exclusive rights to hunt within it. Indeed, as soon as the reserve was gazetted, the hunting company began to encroach on Mkupule, an area to the north-east of Usangu that had been treated as part of Lunda-Mkwambi Game Controlled Area, in neighbouring Iringa District, ever since its gazettement in 1984. In 1998 Lunda-Mkwambi South, including Mkupule, was being developed by the DFID-funded MBOMIPA Project (*Matumizi Bora ya Malihai Idodi na Pawaga*, Sustainable Use of Wild Resources in Idodi and Pawaga) as a pilot Wildlife Management Area, a new category of community-run protected area. Mkupule was rich in game – richer than overhunted Usangu – and had long been coveted by the Rujewa-based hunting company. An ambiguity in the Lunda-Mkwambi gazettement led to the inclusion of a large part of Mkupule within the boundaries of Usangu Game Reserve, and the Baluchi hunters were eager to take advantage of this. A protracted dispute ensued over who had the right to hunting in this area, the tourist hunting company or the villages of Idodi and Pawaga Divisions in Iringa District. In May 2001, a special committee charged with settling this dispute determined that Mkupule did indeed belong to the game reserve and could be hunted by Usangu Safaris Ltd and its foreign clients. The MBOMIPA villages lost their best hunting block (one of five) and a significant portion of their annual income from the sale of game quota.⁵⁵

Once Usangu Game Reserve was established, periodic attempts were made by the authorities to clear it of cattle herders and other trespassers.⁵⁶ The geography of the reserve made it difficult to police, especially during the wet season when the seasonal wetlands were flooded, and as a result operations were typically restricted to the end of the dry season. It was alleged that game reserve staff sometimes used excessive force when on patrol, beating trespassing herders and fishermen, destroying or confiscating their possessions, and setting fire to their temporary dwellings and enclosures. On more than one occasion this is said to have ended in tragedy.⁵⁷ In October 2000 it was reported that a teenage boy had been killed in a fire started by game rangers.⁵⁸ Neither this incident nor the official investigation into it was widely publicised, and the Usangu Game Reserve Manager later asserted that the fatal fire had been started by livestock keepers who were trying to burn a patrol vehicle and halt its progress.⁵⁹ Periodic evictions and the use of force seem to have done relatively little to discourage livestock keepers from returning to the Ihefu wetland, though the permanent swamp was reportedly emptied of fishermen at least once in the period before 2006. As noted above, it would require a large-scale operation to drive cattle herders from the Usangu Game Reserve, and the human cost of this would be far greater than anyone had envisaged.

Hostility towards immigrant livestock keepers, Sukuma in particular, was both reflected in and fuelled by the rhetoric of blame in the national press.⁶⁰ Continuing problems with hydropower generation in the Mtera–Kidatu system helped to focus attention on the Great Ruaha crisis and resource use in Usangu,⁶¹ as did active engagement with the media by the SMUWC Project and other agencies.⁶² Many people were willing to offer their opinions on environmental degradation in Usangu, including the imagined depredations of the one to two million head of cattle that were supposed to be roaming there. (Aerial surveys showed that the real number was closer to 300,000, but the SMUWC Project fought a losing battle to get the Mbarali authorities and others to accept this).⁶³ In March 2002, for example, *The Guardian* newspaper in Dar published consecutive articles whose titles betrayed prevailing

perceptions of Usangu's problems: "They disfigured the Great Ruaha" – "they" being the Sukuma – and "The 'resurrection' of Usangu Game Reserve" – the "resurrection" in question being the recovery of the Ihefu made possible by their exclusion.⁶⁴ A number of people in Rujewa had been interviewed for these articles, including the Mbarali District Commissioner, the Mbarali District Natural Resources Officer, the Assistant Project Manager of Usangu Game Reserve, the local representative of the Wildlife Conservation Society of Tanzania (WCST) – who was a local Sangu farmer, and the "Natural Resources Specialist" of SMUWC. Whether wittingly or not, most of them appeared to support the position represented in the two headlines.

Among them was Hassan Mulla, identified as both the Director of Usangu Hunting Safaris and Chairman of Idunda village. His views were given prominent coverage in both articles. He described Usangu as a veritable paradise for wildlife before the Sukuma invasion, and expressed his hopes for the future, providing that the regulations governing the game reserve were strictly enforced:

I believe we will soon get tourists in this part of the country as more and more wild animals are coming back to Usangu. This will increase revenue to the district as well as to tour operator companies.⁶⁵

Prospects for Usangu Hunting Safaris Ltd did indeed look bright, and there were apparently many people in Rujewa who shared his opinion about the Sukuma and were keen to see the game reserve more effectively policed. As other contemporary press reports attest, these were widely held views both inside and outside of Mbarali District. Relatively few people were aware that the environmental degradations narratives that they espoused were also helping to line the pockets of Hassan Mulla and his family, and that the activities of the hunting company were not necessarily in the best interests of the dwindling wildlife of Usangu. As we shall see, the escalating environmental panic that promoted the Baluchis' own interests would eventually have consequences that were beyond their control. Ironically, while they themselves had played a covert role in securing the gazettement and allocation of Usangu Game Reserve, the spiralling public panic and other hidden hands were later to take their prize away.

Another crisis, and the hidden politics of a hasty solution

I started this article by quoting from President Kikwete's speech at the end of 2005 and sketching some of its consequences for livestock keepers in Usangu. There was nothing inevitable about this sequence of events, and no guarantee that the new president's call for "special and urgent measures" would be any more effective than earlier government pronouncements about the Great Ruaha, though Kikwete's position and the importance of his speech gave them added weight. But his statement to parliament took on much greater urgency when, just over a month later, TANESCO imposed an unprecedented regime of daytime electricity rationing on the country. This severe programme of blackouts, which followed two years of intermittent power cuts, began on 2 February 2006, continued on and off for the rest of the year and proved extremely damaging to industry and other sectors of the national economy. Once again the power shortages were blamed on the critical status of the reservoir at Mtera, drawing attention back to the Great Ruaha and the still-

unresolved situation in Usangu.⁶⁶ This time the political stakes were raised by the fact that the power crisis struck right at the beginning of Kikwete's presidency. Up to this point he had made a very energetic start, and was well on the way to completing a notable first 100 days in office.⁶⁷ The worst series of daytime blackouts in recent memory threatened to undo all of this and blemish the new president's hitherto untarnished image.

Thereafter events moved quickly. On 2 March, following an official tour of Mbarali, the Minister of State in the Vice-President's Office responsible for Environment, Professor Mark Mwandosya, asked the Mbeya Region authorities "to submit to him a report on measures they have so far taken to address the invasion of Ihefu valley by Sukuma herdsmen". He called for "immediate action including a thorough evaluation of the invasion's impact on the natural environment", saying that "This evaluation should be a matter of urgency and must include a report to be presented to the Vice President's Office before it's forwarded to the President for further action."⁶⁸ A week later, on 9 March, President Kikwete visited the Vice President's Office, where he was briefed by Mwandosya and another minister.⁶⁹ Kikwete was quoted as saying that his government was committed to taking unpopular steps in order to protect the environment for the benefit of the nation and future generations, and he issued a "directive that livestock keepers should be immediately evicted from Usangu Game Reserve for the good of the environment in the area".⁷⁰ Following this directive, the Mbeya Regional Commissioner, John Mwakipesile, gave livestock keepers a seven-day ultimatum to move voluntarily from the reserve or be forcefully evicted. Two weeks later large numbers of livestock were reported to have been taken out of the game reserve by their herders.⁷¹ However, this was evidently only a temporary removal, no more successful than similar expulsions in the past.

At the end of March 2006 the Vice President's Office issued *A Strategy for Urgent Actions on Land Degradation and Water Catchments*. This 15-page document listed 12 "challenges", headed by "Environmental degradation arising from the invasion of water sources by pastoralists," with the Ihefu wetland in Usangu cited as an example. First on the list of actions required to tackle this national problem was "Evacuation (voluntary or forced) of all those who have invaded the plains and water basins and water sources in general." The development and implementation of plans to relocate and resettle pastoralists was to be completed by June 2006.⁷² On 1 April the Vice President, Dr Ali Mohamed Shein, followed this up with a "Government Statement on Urgent Measures Aimed at Environmental Conservation and Preservation of Water Sources in the Country," reiterating the main points of the national *Strategy*. One of its directives was that livestock keepers and others settled in the Ihefu wetland should leave immediately. The Regional and District Commissioners responsible for this and other protected areas were to ensure that there would be no encroachment in future.⁷³

On 18 May 2006, a *National Anti-Livestock Operation* was launched in order to implement the Vice-President's *Strategy* and related directives. This operation paid special attention to Usangu, and *The Guardian* later reported its first month as follows:

The full-scale military National Anti-Livestock Operation, aimed at evicting herdsmen from game reserves, water catchment areas and other protected areas in the country is in progress and has so far attained 90 per cent success.

In Usangu Game Reserve, a heavily armed combined contingent of regular police, anti-poaching unit and game wardens has cleared the Ihefu Wetland of hundreds of pastoralists with over 300,000 head of cattle who moved out voluntarily.

Mbeya Regional Commissioner John Mwakipesile told reporters last week that the operation, which began on May 18 would continue indefinitely to ensure the wetland is restored to guarantee the perennial flow of the Great Ruaha River.

Mwakipesile said the central government had so far allocated 200m/ = [Tanzania shillings] to ensure the operation was sustained because of the importance attached to the Ihefu Wetland as a reservoir for the Great Ruaha River and the hydro-electric power generation.

Despite the voluntarily departure from the wetland, some 1,500 head of livestock were impounded and the owners fined a total of 14,450,000/ = [Tanzania shillings]. “We will not allow them back even during the dry season. We are trying as much as possible to avoid confrontation,” said the head of the operation, Officer Commanding District (OCD), Senior Superintendent of Police Komba Nonosius.

The unprecedented operation involves heavy weaponry, ground and occasional air backup and patrol.

Nonosius who was briefing reporters, however declined to give the actual number of security personnel involved in the operation.

“We have enough soldiers. But in an event of the need for more, we will reinforce. We have the capacity,” said the operation’s chief.

Addressing the press in his office, Mbarali District Commissioner Msagama Dololo said the government would not relent on the operation until the Ihefu Wetland gets restored to ensure a perennial flow of the Great Ruaha River.

To secure the game reserve, Dololo said the security personnel had set up camps at Ulanga, Nyota and Ikonga, from where day and night operations are anchored.

The DC [District Commissioner] said though majority of the herders had moved out, some were operating within the reach of the game reserve.

The operation is part of the government’s strategy to restore the flow and water levels of the Great Ruaha River by 2010. This is expected to guarantee hydro-electric power generation at the Mtera Dam and others.⁷⁴

This was just the kind of operation that had been threatened by Basil Mramba back in 1997. Still, there was no guarantee that this eviction of “70,000 pastoralists”⁷⁵ would be permanent. The Project Manager of Usangu Game Reserve, who had more experience than anyone else of past evictions, opined that despite the operation’s initial success, livestock keepers would return later in the dry season, in July. The “only solution to save the Usangu Wetland,” he told *The Guardian* reporter, was “the planned annexure of Usangu Game Reserves [sic] to Ruaha National Park”.⁷⁶ The incorporation of the reserve within an expanded national park would allow more effective enforcement of its boundaries, if only because well-trained and well-equipped TANAPA rangers were much better at this job than other agencies. If the planned upgrading went ahead, then the reserve manager, a Wildlife Division employee, would lose his own post. But as we now know, this was the least of the consequences that the proposed expansion of the national park was to have, even before it became a legal reality.

The Usangu Game Reserve manager later told me that he had first heard of the government's intention to upgrade the reserve while listening to national radio. Like many people whose lives or work would be affected by it, this announcement took him by surprise. And although he understood its wider background in terms of government policy and recent developments, he did not know how and where the proposal itself had originated.⁷⁷ Indeed his ignorance of the past history of the proposal was shared by many colleagues both inside and outside of government who were concerned with natural resource management in Mbarali. Apart from an understanding that it had "come from the top", the same uncertainty extended up the hierarchy of WWF-Tanzania and its Ruaha Water Programme.⁷⁸ The country office had already invested considerably in the production of a *General Management Plan* for Usangu Game Reserve, as well as a *Strategic Plan for the Livestock Sector* in Mbarali District, both of which assumed no change in the status quo.⁷⁹ But the WWF was also involved in the establishment of new protected areas in the upper catchment of the Great Ruaha, and would be many observers' prime suspect for promoting further park expansion in the region. However, staff denied that they were responsible for the Usangu proposal; like others they were surprised to find the idea already in circulation.

When I met the WWF's Country Representative in August 2007, I asked for his view on academic criticism of WWF's role in the proliferation of protected areas. Noticing that he had a copy of Christine Walley's anthropological study of the political conflicts surrounding the creation of Mafia Island Marine Park on his desk, I also asked what he thought about this.⁸⁰ After remarking that the book only told part of the story, because it reflected the author's particular experience of events, he emphasised that WWF had been invited by the government to assist in the development of the park; they had not gone in uninvited with an expansionist agenda.⁸¹ He might well have said something like this about WWF's involvement with the parks and reserves in the Great Ruaha catchment, and there was certainly no evidence to suggest that WWF was plotting to create Africa's largest national park – Ruaha and the Usangu Game Reserve combined – before it was proposed by others. Nor was it known to be on TANAPA's agenda.

The apparent source of the proposal to upgrade the Usangu reserve, and undoubtedly its most active proselytisers, was a relatively small number of investors and their associates with a shared interest in tourism and conservation in Ruaha National Park and the surrounding area. Most of them were Tanzanian residents of European origin with a stake in the lodges and camps in the park and/or other aspects of the safari business linked to Ruaha. Some of them had long-standing connections with the park, had once been prominent members of the FORS, and had a history of pro-park advocacy. The drying of the Great Ruaha had been taken up as an issue by this core group in the mid-1990s, and their interaction with the British government-funded projects in the region (REWMP [Ruaha Ecosystem Wildlife Management Project, 1992–96], MBOMIPA, SMUWC and RIPARWIN) fuelled their growing concern and part-time activism. Over the years they used a variety of means to disseminate their views and lobby the governments, projects, and other institutions concerned with the Great Ruaha question.

One of the key moments in the evolution of this campaign of low-level badgering was the dissemination in November 2000 of a document with the heading *TANZANIA / THE NOT SO GREAT RUAHA / WE NEED YOUR HELP*.⁸² This comprised three letters addressed to DFID's Renewable Natural Resources Adviser

in Dar in his role as overseer of SMUWC. The first letter, signed by Peter Fox of FoxTreks Ltd, purported to present “the issue”. Beginning with a somewhat intemperate attack on DFID’s role (“British aid funded cockups with British aid funded projects to sort out the cockups”) and the progress of SMUWC, this concluded that “the primary contributor for the water failure is clearly the rice, which is taking 100% of the water in the dry season from the rivers, with the livestock as a secondary cause” – referring to the presence of 400,000 cattle and goats and the creation of a “dustbowl” around the permanent swamp. In order to help salvage “Total disaster for Ruaha and Mtera” and “An extremely embarrassing failed project” (SMUWC), it suggested two remedies: “Ensuring the rice schemes do not use water between June and December,” and “Enforce ejection of cattle from the swamp.” The first part of this analysis was really just a simplified version of SMUWC’s, but its assertions about the impacts of livestock keeping in Usangu were not supported by project research.

The second letter, written by Sue Stolberger, the Honorary Treasurer of FORS, accused SMUWC of reaching a conclusion that had been known all along, and provided “the facts”, including detailed notes on flows in the Great Ruaha based on observations made in Ruaha National Park since 1994. The third letter, in the form of an email by Geoff Fox, father of Peter and the founder of FoxTreks Ltd,⁸³ as well as one of the founders of FORS,⁸⁴ outlined “the solution”, but in this case a very different one from that recommended by his son. His suggestion was that DFID should revive an old proposal to dam the Ndembera River above Usangu and the Madibira rice scheme.⁸⁵ This dam could be used both to generate electricity and to guarantee dry seasons flows in the Great Ruaha, from Usangu and through the park down to Mtera. He had, he said, already put this idea to the Managing Director of TANESCO and received a positive response. The letter ends with the assertion that “British tax payers money on this dam will probably be better spent than a long, unreadable, indecisive, expensive and inconclusive Usangu report on politics!” The authors of this document were not above a little politicking themselves: according to a cover sheet it was copied to a long list of decision-makers including the President of Tanzania, the Minister for Natural Resources, the Director General of TANAPA, the Ruaha and Kilimanjaro National Park Wardens, the Mbarali and Iringa District Commissioners, the UK Secretary of State for International Development, her Permanent Secretary, and a number of DFID advisers in London and Dar. I do not know what, if any, effect this document and its muddled arguments had on its recipients and the offices in which they worked. The title was certainly a catchy one,⁸⁶ and it is possible perhaps to see a reflection of it in the English translation of President Kikwete’s speech to parliament in December 2005: “The Great Ruaha River is no longer great – it is almost dry in some parts.”⁸⁷

Another significant moment was the production and dissemination in March 2004 of a longer document, *An Overview of the Usangu Catchment, Ihefu Wetland, & Great Ruaha River Ecosystem Environmental Disaster*.⁸⁸ This was authored by another member of the Fox family, Bruce, and was a much more considered piece than *The Not So Great Ruaha* of November 2000. A large part of the article summarised, with approval, the results of research undertaken by the SMUWC and RIPARWIN projects. It also took account of the government’s pledge (made in March 2001) to restore year-round flows to the Great Ruaha, and the subsequent work of the WWF Ruaha Water Programme.⁸⁹ Most of its recommendations related to the improved management of irrigation in Usangu, but it also included some older

ideas and recommended further research to “determine the impact of migrant herders and livestock on the Ihefu swamp and Ruaha river flows”, as well the need to consider both an upstream hydroelectric project and the damming of the Usangu swamp outlet.⁹⁰ For once, though, no link was made between events upstream of Mtera and downstream hydropower generation. The “disaster” of the article’s title was both ecological and economic, but not quite as bad as it had been imagined in the past: “The deteriorating situation is now directly threatening wildlife in Ruaha National Park; is in danger of jeopardizing visitor interest in Ruaha; and is causing great embarrassment to the Tanzanian government.”⁹¹

Like the earlier document, this was widely disseminated. It was attached to a letter to the Minister for Natural Resources and Tourism, Zakia Meghji, which was in turn copied to other ministers (for Agriculture and Food Security, Water and Livestock Development, and Energy and Minerals), top officials (the Chairman of the National Environment Management Council, Permanent Secretary in the Ministry of Energy and Minerals, Director General of TANAPA, Chief Park Warden of Ruaha National Park, Rufiji Basin Water Officer), FORS members, and a few others. The *Overview* was also sent to a longer list of people working in development agencies, conservation organisations, and other institutions with a stake in the Great Ruaha “disaster”. There was no hint of a proposal for park expansion in this document, nor in other letters written at this time, and it does not seem to have been on anyone’s agenda in 2004. I can only speculate on how this came about. One factor was undoubtedly the growth of investment in tourism in Ruaha National Park and the surrounding area.⁹² This brought with it increasing competition between operators both inside and outside the park (where the Fox family no longer held a monopoly), and so greater interest in exploring further opportunities for growth that would not simultaneously destroy the “wilderness” image of Ruaha. The opening of new tented camps and inclusion of the park in wider safari packages also brought more people into the small group of friends and acquaintances who were concerned about the drying of the Ruaha and eager to do something about this as well as other environmental issues that affected the area.⁹³ It was this group of people whose energetic behind-the-scenes lobbying led to the government’s commitment to incorporate Usangu Game Reserve within Ruaha National Park, and so, indirectly, to the “final” expulsion of livestock keepers from Mbarali District in late 2006 and early 2007.

This lobbying began immediately after Kikwete’s election as president. The timing was designed to make the most of the opportunities for change that the start of a presidential term offers. Different members of the group targeted different key individuals in government that they already knew well or had access to, pressing their case for greater protection of the Great Ruaha and its catchment in personal meetings and using whatever other means of persuasion they could.⁹⁴ The objects of this attention included the new Minister for Natural Resources and Tourism, the Deputy Minister for Home Affairs, the Director General of TANAPA, a number of TANAPA Board members, and a Deputy Secretary General of the ruling party, CCM (*Chama cha Mapinduzi*). On 27 April 2006 one of the lobbyists⁹⁵ wrote a formal letter to the minister, Anthony Diallo, urging protection of water sources and flows in the upper catchment, between there and the Great Ruaha, and along the entire length of the river. In order to protect the river itself, two measures were proposed: the upgrading of Usangu Game Reserve to become “Usangu National Park;” and the annexation by Ruaha National Park of Lunda-Mkwambi Game

Controlled Area, and perhaps also the remaining stretch of the river down to Mtera. Construction of a storage dam on the Ndembera River was also proposed in the letter, which was bound together with earlier correspondence from 2004, including Bruce Fox's *Overview of the Great Ruaha "disaster"*.⁹⁶ As well as being sent to the Minister for Natural Resources and Tourism, a copy of this collection of documents was also delivered by hand to President Kikwete.

By this time, as we have seen, the government's attention was already firmly focused on Usangu. The proposal that Lunda-Mkwambi be incorporated within Ruaha National Park did not go much further: a large part of the game controlled area was recognised in legislation as a pilot Wildlife Management Area (WMA), run by the MBOMIPA Association under the auspices of the Wildlife Division.⁹⁷ The Fox family and others had long had interests in and designs on Lunda-Mkwambi, but a change in its current status would question the government's commitment to its own policy⁹⁸ and irk the donors who had invested in this and other pilot WMAs. Moreover there was little justification for such a change: the problems of the Great Ruaha were believed to originate upstream, not in the drying river's own valley. Usangu, though, was a different matter. The proposal that Usangu Game Reserve be upgraded to park status was much more viable, and it evidently gained support from key individuals and departments in the government, including some of those that had been targeted. The case for upgrading was already being discussed when the Parliamentary Committee for Lands, Natural Resources and Environment visited Mbarali District together with officials from the Environment division of the Vice President's Office on 22–25 May.⁹⁹ This trip was sponsored by WWF-Tanzania's Natural Resource Management Programme as part of a capacity-building scheme for parliamentarians, but turned into a rather more political exercise. Committee members are said to have become convinced that the Ihefu Swamp and Usangu Game Reserve needed greater protection, despite being offered financial inducements to oppose the proposal. The Baluchi-owned hunting company based in Mbarali, Usangu Safaris Ltd,¹⁰⁰ stood to lose most from the conversion of the game reserve to park status, because they would no longer be able to hunt there, cancelling all of their earlier efforts to secure sole access. As in the past, they are alleged to have used corrupt wildlife officials to fight their cause, but this time without success.

On 20 June 2006 the Minister for Natural Resources and Tourism, Anthony Diallo, announced that Ruaha National Park would annex the Usangu Game Reserve. He made this announcement at a fund-raising dinner in Dar organised by the Wildlife Conservation Foundation of Tanzania and attended by President Kikwete, former President Benjamin Mkapa, and other dignitaries.¹⁰¹ The news was welcomed by the investors who had lobbied for it, though they had hoped that the game reserve would become a separate park, rather than part of an enlarged Ruaha National Park. They had proposed the two-park option because this would give them an opportunity to maximise revenues by offering holidays in both of them, marketed to tourists as different experiences. From TANAPA's point of view, though, it made administrative and economic sense to retain a single park management, rather than duplicate personnel and infrastructure. The expanded Ruaha would become Africa's largest park, not to mention the centrepiece of Tanzania's "Southern Tourism Circuit", and could be marketed as such.¹⁰² Before the park was established, a lot of work had to be done. On 14 July a formal proposal from the Ministry of Natural Resources and Tourism for the expansion of Ruaha National Park into Mbarali District was discussed at a Regional Consultative Committee (RCC) meeting in

Mbeya. It was recommended that the new park boundaries be extended to include the eastern wetland of Usangu and village lands outside of the existing game reserve, increasing the area to be annexed and necessitating the resettlement and compensation of villagers.¹⁰³ This proposal was developed after a visit to Mbarali in early July and a flight over the affected area by officers from TANAPA and Wildlife Division headquarters.

Meanwhile the government was coming under increasing pressure from pro-pastoralist groups and civil society organisations for the way in which the existing evictions were being conducted.¹⁰⁴ On 16 August 2006, responding to questions about the eviction of livestock keepers from Usangu, the Prime Minister, Edward Lowassa, told Parliament that he had earlier formed a Committee of Deputy Ministers (*Kamati Ndogo ya Naibu Mawaziri*) and sent it to Mbarali to investigate the conduct of the anti-livestock operation.¹⁰⁵ They had, he said, only found minor problems with the eviction process, and he read out their recommendations, which included the advice that each of the districts involved should prepare a Land Use Masterplan. The Prime Minister also announced that he would chair a forthcoming meeting of stakeholders in the livestock sector, to be organised by the Ministry of Livestock Development.¹⁰⁶ On 25 August, following a directive from the Prime Minister, a Committee of Ministers met in Ngurdoto, Arusha, to discuss the recommendations made by their deputies. On 8 September they met in Dodoma together with Regional Commissioners and Executive Directors from eight regions potentially affected by the evictions from Mbarali. The regions (Rukwa, Mbeya, Iringa, Dodoma, Morogoro, Coast, Ruvuma and Lindi) agreed on areas for the resettlement of livestock keepers from Usangu and other measures relating to this process.¹⁰⁷ On 3 October the planned Meeting of Stakeholders in the Livestock Sector (*Mkutano wa Wadau wa Sekta ya Mifugo*) was opened by the President. In his speech welcoming Kikwete, the Prime Minister recounted the events that had taken place since the Vice President's *Strategy* had been issued at the end of March, including the eviction of some 100,000 livestock from Mbarali.¹⁰⁸ The President began his own speech by quoting from the 2005 CCM Election Manifesto and recalling his instruction to the Ministry for Livestock Development in January 2006 to promote the modernisation of livestock production and marketing. One element of this was "abandoning mobile pastoralism in favour of modern, market-oriented, livestock keeping".¹⁰⁹

Following the meetings in Dodoma and decisions taken subsequently, the Mbarali District authorities directed that herders with 100 or more livestock (of any kind) should remove them from the area. The eviction process was thereby extended to livestock kept outside of the Usangu Game Reserve as well as to trespassers within the park-to-be. Village chairmen in Mbarali were asked to compile lists of local livestock holdings and these were used as the basis for forcing herders to move out of Usangu and into other designated districts in Mbeya, Lindi and Coast Regions. The Special Patrol to remove livestock from Usangu began on 7 November 2006, and later reports indicated that most of them were expelled from Mbarali between this date and January 2007.¹¹⁰ Significant numbers of livestock were taken by their herders to districts other than those intended, including an estimated 16,000 cattle that were taken down the Great Ruaha valley and into the Mtera Basin in mid-December.¹¹¹ On 24 January, the Committee of Ministers Overseeing the Relocation of Livestock (*Kamati ya Mawaziri inayosimamia Uhamaji wa Mifugo*, chaired by the Minister for Livestock Development, now Anthony Diallo), met to debate a report

on the relocation of livestock from Mbarali. A number of problems with the operation were discussed, including its unfortunate timing and hastiness, the negative impact on herders' families, and the extortion of money from them in the form of ad hoc fines. Following one of the committee's recommendations, Diallo issued an official statement on the eviction process admitting that there had been shortcomings.¹¹²

The full seriousness of matters was subsequently revealed by independent research. At the end of March 2007, a consortium of organisations – PINGOs Forum (Pastoralists Indigenous Non Governmental Organization's Forum), HakiArdhi (Land Rights Research & Resources Institute), HIMWA (*Huduma ya Injili na Maendeleo Kwa Wafugaji*), Legal and Human Rights Centre (LHRC), ITV (Independent Television Limited) and the newspaper *Majira* – commissioned a fact-finding study in Lindi and Coast Regions to find out what had happened to the livestock keepers, mostly Sukuma, who had been forcefully moved there from Mbarali.¹¹³ On 3 April, soon after completion of the study, the NGO/media consortium issued a press release in Dar alleging that a number of human rights violations had occurred during the process of eviction and resettlement. The abuses cited included theft of livestock, imposition of unjustified fines for environmental degradation, extortion of bribes, subjection of individuals to torture, the forced separation of families, denial of access to education to children, and widespread hunger. Among the demands made by the consortium was that the government should establish an independent commission to investigate the violation of human rights and take legal action against those responsible.¹¹⁴ PINGOs Forum and its partners followed this up by presenting the report of their study to the Committee for Natural Resources and Environment and other parliamentarians (58 in total) at a seminar held in parliament buildings in Dodoma on 15 April.¹¹⁵ As a direct result of this, on 20 April Prime Minister Lowassa announced to parliament that the government was forming a special Commission of Enquiry to investigate the eviction of livestock from Mbarali and make appropriate recommendations. The commission, chaired by Judge Othman Chande, began work immediately, visiting Mbarali District in early May.¹¹⁶ Its finished report was handed over to President Kikwete on 6 June.¹¹⁷ As noted at the beginning of this article, it had still not been made public more than three years later.

The Mbarali question was next discussed in parliament during consideration of the 2007–08 budget estimates. On 24 July the Minister for Livestock Development, Anthony Diallo, told parliament that out of a total of 303, 254 livestock scheduled for removal from Mbarali, 218,000 had actually been moved: 100,000 to Chunya, 65,636 to Rufiji, 18,000 to Kilwa, 8000 to Kisarawe, 4958 to Lindi Rural, 4000 to Kilombero, Ulanga and Kilosa, and 17,406 to Singida, Tabora, Dodoma, Rukwa and Ruvuma Districts.¹¹⁸ In response to this statement the opposition spokesperson, Mwadini Abbas Jecha, criticised the eviction process, citing the conclusions of the investigative report by the PINGOs Forum and its partners. Calling for compensation to be paid to the livestock keepers, he also asked for the Commission of Enquiry's report to be made public and its recommendations implemented. MPs on both sides of the house joined in the debate.¹¹⁹ On the next day, 25 July, the Minister for Natural Resources and Tourism, now Professor Jumanne Maghembe, announced that the decision to add Usangu Game Reserve to Ruaha National Park, increasing it in size from 10,300 km² to 20,226 km², would be brought before parliament in the coming financial year. He asserted that this would ensure that livestock did not

invade the area again, and that full protection of the wetland and water catchment would ensure all-year-round flow in the Great Ruaha, higher reservoir levels at Mtera, and a more reliable supply of electricity for the country as a whole.¹²⁰ This was a succinct reprise of the environmental degradation narratives that had helped to set off the whole problem in the first place.

In the debate which followed Maghembe's speech, the CCM MP for Mbarali, Estherina Kilasi, asked for clarification of plans to expand the park beyond the boundaries agreed at the RCC meeting in July 2006. The original agreement was that seven villages and three sub-villages (*vitongoji*) outside of Usangu Game Reserve would be added to the park and their residents compensated. In a letter signed by the minister and dated 27 April 2007, a further nine villages were added to the list, creating considerable disquiet in these communities, in addition to general uncertainty about the resettlement and compensation process. The outcome of further deliberations about this seems to have been a compromise, though the decision was still to swallow up a larger area than originally stated. On 14 November 2007, when Maghembe sought parliament's approval for the expansion of Ruaha National Park, he announced that the inhabitants of 11 villages and five sub-villages would have to be moved, and that 2.75 billion Tanzanian shillings had already been paid to some of them in compensation. Again the Mbarali MP queried this, noting that inadequate preparations had only been made for the resettlement of the seven villages and three sub-villages originally agreed. Would the minister tell parliament which the extra four villages and two sub-villages were and why they had now been included in the enlarged protected area? In reply Maghembe identified the additional villages and sub-villages and explained that they had simply been missing from the map until the boundaries agreed in the RCC meeting were properly examined: the ministry, region and district were already working with them now to prepare for their resettlement. Satisfied by this and other answers from the minister, the CCM-dominated parliament approved the expansion of Ruaha National Park.¹²¹

Conclusion: hidden histories and invisible hands

The decision to upgrade Usangu Game Reserve would therefore lead to a double eviction: the expulsion of large numbers of Sukuma and other livestock keepers from Mbarali District, and the removal of villages and hamlets – some of them old Sangu settlements – from within the expanding boundaries of the protected area, which was already being advertised as Africa's largest national park. The small group of tour operators and their friends who had lobbied so successfully for the upgrading of the reserve were not directly responsible for the way in which this was done and the evictions that followed. But they played a crucial role in making these events possible, not only by introducing and lobbying hard for the Usangu proposal, but also, over a longer period, by disseminating the degradation narratives and fuelling the environmental panic that President Kikwete and other recipients of their views were eventually prompted to act upon. In January 2007 one tour operator wrote to a group member to express his misgivings about "the inevitable and unbelievable humanitarian and livestock disaster" that he was watching unfold: "To see people and cattle being treated so cruelly and inhumanely is simply unforgivable, and to think that they are being forced out of Usangu under the pretext of 'conservation' is cause for some serious concern and self questioning."¹²² But others were unrepentant, including one of the leading lobbyists:

While many of us on the list bear responsibility for causing the change in status in the area, there is no doubt in my mind that it was necessary. We should be proud that we have achieved so much in what is essentially so little time – compared to the decade of dilly-dallying of researchers and politicians since the early 1990's, we mobilised our combined resources and did it in a few months of the new government taking power. It should be pointed out that we didn't all do this out of commercial or other vested interests. [A local artist] can still sell her paintings whether she is in a desert or a swamp, we have still been able to increase bednights whatever the changes in river levels etc. etc. To say that this change in status has adversely affected the livelihoods of the pastoralists is a very one-sided argument. Many of the cattle-owners have hundreds, even thousands, of cattle. For them it is a business, plain and simple. Most are not even from the area – they sent herds to act as a beach head a few years ago, then moved in en-masse from around the country. Their actions are affecting, and have affected, the livelihoods of Millions of Tanzanians, Multitudes of wildlife in addition to the environmental damage to sensitive wetlands and wildlife downstream [*sic*].¹²³

Despite the disclaimer, commercial interests did figure in the calculations of the author of this passage and other members of the lobbying group. In a later email, explaining different aspects of their thinking, he wrote:

One minor but i feel important divergence from our Game Plan was that we wanted it to be a separate Park – to ensure that it got visitor numbers to make it more economically viable for tanapa. The psychology being that clients are far more likely to add days for a separate National Park than for a different place in the same one – a bit like going through their bird/animal checklist. HOWEVER, the gov[ernment] went a different but perhaps also marketable direction in adding more area to make it the largest National Park [*sic*].¹²⁴

The commercial interests of the group, as well as their views about the Great Ruaha “disaster” and its causes, brought them into conflict with the Baluchis in Rujewa whose tourist hunting company, Usangu Safaris Ltd, held the Usangu Game Reserve concession. When the tour operators pressed for the reserve to be upgraded, they were in effect competing with Hassan Mulla's family for the use of this area. As we have seen, the game reserve owed its existence in large measure to the earlier machinations of the hunting company. By mid-2006 their local hunting business was being threatened in turn by the covert scheming of a group of tourist investors and others of mainly European origin. I do not know if the company's owners were aware of this, and likewise have no evidence to suggest that their tourist hunting operation was deliberately targeted, though some members of the Ruaha group had long been critical of their hunting practices, and had once purchased their own concession in Mkupule to keep poachers from Mbarali and Mufindi Districts away from its wildlife and forest resources.¹²⁵ The struggle over the status of Usangu Game Reserve in 2006 was largely conducted by proxy, with Wildlife Division officers representing the commercial interests of the Baluchis and the tourist hunting industry against the much more powerful array of government and other institutions supporting the reserve's transfer to TANAPA. As we know, Usangu Safaris Ltd lost this fight, though in August 2007 the company was rumoured to be considering taking legal action to seek redress. Meanwhile, the company seems to have run into other difficulties. In January 2006 it had sold the rights to most of its ex-TAWICO hunting blocks, and by August 2007 appeared to be struggling to pay staff and manage hunting safaris satisfactorily.¹²⁶

Both instances of protected area expansion discussed in this article – the creation of Usangu Game Reserve and its upgrading and annexation by Ruaha National Park – have been influenced by the profit motive and the interests of individuals and companies competing and/or collaborating for commercial gain. This influence has generally been hidden from view because the parties involved have preferred to conceal their intentions and methods lest transparency jeopardise their success. Mismanagement of the reservoir at Mtera has presumably been concealed to preserve the jobs and reputations of those responsible for it – at least in cases where those involved have been aware of the reasons for the failure of the system. The degradation narratives that have been employed repeatedly to explain this failure and link it to other (in reality unconnected) environmental events have served a variety of political, economic and personal interests, only some of which have been described above. Blaming resource users in Usangu and in particular immigrant Sukuma cattle keepers has been an easy option for many, all the more so because it fits in with wider prejudices about pastoralism and the need – reflected in government policy – to modernise livestock production in the country. The result has become an example of how not to manage natural resources, let alone treat a nation's citizens. Whatever virtues may be assigned to the protection of the environment and the conservation of biodiversity, it is difficult to see how private vices have brought public benefit in this case. The invisible hand of the liberalised market does not seem to have worked quite in this way. Instead the selfish acts of individuals seeking to maximise their economic and political advantage have succeeded only in creating one of Tanzania's most unnecessary environmental panics and generating unjustifiable suffering for the people who have been evicted from their homes, farms and pastures in Usangu.

Notes

1. URT (United Republic of Tanzania), "Speech by the President," 23–4.
2. This paper draws on my "Pangolins, Science and Scapegoats"; "The Production of Knowledge"; "Conservation Myths"; and "Pastoralism and Policy Processes." I am grateful to everyone who has taken part in or assisted me in this research, and would especially like to thank Michael Sheridan and Dan Brockington for the invitation to write this paper. It is a personal reflection and does not represent the official position of any of the organisations I have worked for or been associated with.
3. I use the phrase "environmental panic" to suggest parallels with the "moral panics" studied by sociologists: the classic account is Cohen, *Folk Devils and Moral Panics*.
4. Walsh, Olivier, and Baur, "Sustainable Management," 85–6.
5. Lankford et al., "Entrenched Views"; Thomas, King, and Kayetta, "People, Perspectives and Reality." The term "environmental orthodoxies" is from Forsyth, *Critical Political Ecology*.
6. For well-documented Tanzanian case studies: Brockington, *Fortress Conservation*, and Walley, *Rough Waters*; also Brockington "Communal Property and Degradation Narratives," and "Politics and Ethnography of Environmentalisms." For the proliferation of protected areas: West, Igoe, and Brockington, "Parks and Peoples."
7. For the anthropological critique of this neo-Foucauldian style of explanation: Grillo, "Discourses of Development"; Englund and Leach, "Ethnography and the Meta-Narratives of Modernity."
8. I first conducted anthropological research in Usangu in the early 1980s. In 1997 I led the team that drafted the design of the SMUWC Project, "Sustainable Management of the Usangu Wetland and its Catchment," later (1998–2002) serving on its Steering Committee. I have visited Mbarali District on a number of occasions since then, most recently in August 2007 as part of a review of government policies and practice towards pastoralists undertaken for the Tanzania Natural Resource Forum.

9. For an introduction to these issues: Shore and Wright, "Policy: A New Field of Anthropology?"; Mosse, "Anti-social Anthropology?"
10. For a comprehensive overview of the hydrology and physical features of Usangu and the Great Ruaha above Mtera: SMUWC Project, "Baseline 2001."
11. Walsh, Olivier, and Baur, "Sustainable Management," 27; Froehlich, "Application of the TALSIM 2.0 Model," 3–4.
12. Froehlich, "Application of the TALSIM 2.0 Model," 4.
13. "Power Supply," *Bulletin of Tanzanian Affairs* 44 (January 1993), 9; "Natural Gas Go Ahead," *Bulletin of Tanzanian Affairs* 49 (September 1994), 9; review of "Hydropower in Tanzania," by K. Dodman in *International Power Generation*, January 1994, *Bulletin of Tanzanian Affairs* 49 (September 1994), 36; "Donors Promise \$1 Billion – but with Conditions," *Tanzanian Affairs* 51 (May 1995): 9–12; "Business News," *Tanzanian Affairs* 51 (May 1995): 25.
14. Faraji and Masenza, "Hydrological Study."
15. Walsh, "Misinterpretation of Chiefly Power," 58–65.
16. FAO, *The Rufiji Basin*.
17. Hazlewood and Livingstone, *Development Potential*, I: 2.4–2.21, 4.1–4.13.
18. *Ibid.*, I: 6.81. See also the largely theoretical section on "Down-stream Users of Water" in Hazlewood and Livingstone, *Irrigation Economics*, 122–3.
19. SMUWC Project, "Kamati ya Mipango ya Bonde la Usangu"; SMUWC Project, "Kukauka kwa Mto Ruaha." Because of a lack of reliable records, the literature contains contradictory statements about the cessation of flows in the Great Ruaha in the years immediately preceding 1994. Some of these contradictions were discussed in this meeting.
20. Patterson, "Proposed Usangu Game Reserve." Although cautious about the causes and consequences of low flows in the Great Ruaha, the author did remark that "The conservation value of the Ruaha ecosystem and national water security (including hydroelectricity production at Mtera Dam) are potentially seriously compromised" (p. 2).
21. "Ruaha Planning Workshop," *The Friends of Ruaha Society Newsletter* 4, no. 1 (April–June 1995); L. Moirana and C.L. Nahonyo, "Usangu Plains," *The Friends of Ruaha Society Newsletter* 4, no. 3 (July–September 1995).
22. Sue Stolberger, "The Great Ruaha River Runs Dry for the Third Season in Succession," *The Friends of Ruaha Society Newsletter* 4, no. 4 (October–December 1995).
23. "Donors Promise \$1 Billion – but with Conditions," *Tanzanian Affairs* 51 (May 1995), 9–12; Luteganya, "Importance of the Kidatu/Mtera Power Reservoirs"; Anonymous, "Tanzania Electric Supply Company Limited"; Lankford et al., "Entrenched Views," 143.
24. SMUWC was funded by the UK government's Department for International Development (DFID) and RIPARWIN by both DFID and the International Water Management Institute (IWMI), funded by the Consultative Group on International Agricultural Research (CGIAR).
25. SMUWC Project, "Baseline 2001," iii–vi; Lankford et al., "Entrenched Views," 142–4; Peter Baur, "Why Does the Great Ruaha River Dry Up in the Dry Season?" *FORS News* (The Friends of Ruaha Society) 14, no. 1 (2005), 7.
26. For resistance to project findings: Lankford et al., "Entrenched Views"; Thomas, King, and Kayetta, "People, Perspectives and Reality."
27. Interview with Willie Mwaruvanda, Rufiji Basin Water Officer, Iringa, August 27, 2007.
28. Mwaruvanda, "Pragmatic View on the Mtera Dam." I have not seen this, but the debate about it was described to me by the author.
29. President Ally Hassan Mwinyi appointed Kikwete Deputy Minister in the Ministry of Energy and Minerals in 1988 and full Minister of an enlarged Ministry of Water, Minerals and Energy in 1990, a post he held until 1994.
30. Kikula, Charnley, and Yanda, "Ecological Changes," 2.
31. Walsh, Olivier, and Baur, "Sustainable Management."
32. *Sustainable Management of the Usangu Wetland*. Ministry of Water, Government of Tanzania, and DFID, Eastern Africa, February 1998. Part of the economic justification was borrowed from the River Basin Management and Smallholder Irrigation Improvement Project (RBMSIIP), which covered both the Rufiji and Pangani River Basins.

- SMUWC had its origins in a commitment by the ODA to undertake research that would contribute to this World Bank-funded initiative.
33. Luteganya, "Importance of the Kidatu/Mtera Power Reservoirs," 4–5.
 34. Froehlich, "Application of the TALSIM 2.0 Model"; Yawson et al., "Modelling the Mtera-Kidatu Reservoir System"; Yawson, Kachroo and Kashaigili, "Failure of the Mtera-Kidatu Reservoir System"; also Teleki and Cech, "Evaluation of Success and Failure."
 35. Yawson, "Development of a Decision Support System".
 36. Cooksey, "The Power and the Vainglory."
 37. Source: Charnley, "Cattle, Commons, and Culture," Tables 6 and 7 (unpaginated copy).
 38. Charnley, "Environmentally-displaced Peoples," 608.
 39. Researchers and other "opinion makers" also made the connection. Susan Charnley's discussion of these environmental degradation narratives helped to promote the view that Sukuma immigrants were prominent among those to blame for degrading the ecology and hydrology of Usangu: Charnley, "Cattle, Commons, and Culture"; World Bank, "Pastoral Issues in the Usangu Plain"; Kikula, Charnley and Yanda, "Ecological Changes"; Charnley, "Environmentally-displaced Peoples," 606–614; Walsh, Olivier, and Baur, "Sustainable Management," 100–4; SMUWC Project, "Baseline 2001," 102–10.
 40. Walsh, Olivier, and Baur, "Sustainable Management," 62–2, also 123–4. The Utengule Swamps Game Controlled Area (GCA) was proposed in 1957 to protect a population of topi (*Damaliscus korrigum*) and gazetted in 1963: Charnley, "Cattle, Commons, and Culture," 30–1. Different kinds of utilisation and hunting can be authorised in GCAs, which are gazetted on village lands. Open areas are village lands which have no conservation status, but have been designated for tourist or resident hunting. Hunting in both kinds of area is administered by the Wildlife Division in collaboration with the local district council(s). Resident hunting is available only to Tanzanian residents on purchase of the appropriate licenses and fees; prices are much lower than those for tourist hunting, but a limited range of game species is offered on quota.
 41. Under normal circumstances only tourist hunting is permitted within game reserves, which are also administered by the Wildlife Division. National parks are reserved exclusively for non-consumptive tourism and are managed by TANAPA. For an overview of protected area categories in Tanzania: Severre, "Conservation of Wildlife" and "Community Tourism."
 42. In 1985 according to the Wildlife Division's *Usangu Game Reserve General Management Plan*, 13; 1987 according to L. Ole Moirana, Chief Park Warden, Ruaha National Park, interviewed at Msembe, October 18, 1995.
 43. Charnley, "Cattle, Commons, and Culture," 31, 230.
 44. Interview with Stanley Munisi, Mbeya Regional Game Officer, Mbeya, February 12, 1997.
 45. For a recent assessment: Baldus and Cauldwell, *Tourist Hunting*, 4–5, 33–6.
 46. "Ruaha Planning Workshop," *The Friends of Ruaha Society Newsletter* 4, no. 1 (April–June 1995); L. Moirana and C.L. Nahonyo, "Usangu Plains," *The Friends of Ruaha Society Newsletter* 4, no. 3 (July–September 1995).
 47. Munisi, "Why Should Usangu Plain," 1.
 48. *Ibid.*, 5. When interviewed in February 1997 the Mbeya RGO described the illegal methods used by resident hunters in Usangu. Other informants alleged similar bad practice by the hunting company and its professional hunters.
 49. Moirana and Nahonyo, "Why the Usangu Plains Should," 6, 11.
 50. *Ibid.*, 13, 34–5; Sue Stolberger, "The Great Ruaha River Runs Dry for the Third Season in Succession," *The Friends of Ruaha Society Newsletter* 4, no. 4 (October–December 1995).
 51. Kikula, Charnley, and Yanda, "Ecological Changes." Susan Charnley was the second author of this paper, which drew some of its arguments from her doctoral research, "Cattle, Commons, and Culture."
 52. Interview with Basil Mramba, Mbeya Regional Commissioner, Mbeya, February 13, 1997, who also provided two documents prepared by his office: *Mapendekezo ya Matumizi Bora ya Bonde la Usangu – Wilaya ya Mbarali Mkoani Mbeya* and *Mpango wa*

- Kuinua Ufugaji wa Hifadhi ya Mazingira katika Mkoa wa Mbeya*, translated in Walsh, Olivier and Baur, "Sustainable Management," 90–9.
53. The inhabitants of one village, Mawale, were subsequently resettled in Sololwambu, outside of the reserve boundary: URT, "Usangu Game Reserve General Management Plan," 13.
 54. "Chifu" Kipareni Kifutu, Upagama Village Chairman and former Chairman of the Usangu Basin Livestock Society Ltd, interviewed in Rujewa, February, 14 1997.
 55. Walsh, "Development of Community Wildlife Management," 12–14; URT, "Taarifa ya Kitalaam."
 56. For an early example: "Twenty One Herders Held for Grazing Cattle in Mbarali Reserve," *The Guardian* (Dar es Salaam), November 10, 1998. For later episodes: Zephania Ubwani, "Govt Bars Pastoralists from Grazing in Usangu Wetland," *The Guardian*, March 18, 2004; Jonas Mwasumbi, "Pastoralists Told to Vacate Ihefu Swamp," *Sunday News* (Dar es Salaam), October 24, 2004.
 57. Thomas, King, and Kayetta, "People, Perspectives and Reality," 212.
 58. SMUWC Project, "Incidents in the Game Reserve on Eastern Wetland," handwritten notes in SMUWC Project files, Rujewa, 2000.
 59. Roman Massawe, Project Manager, Usangu Game Reserve, interviewed in Rujewa, May 8, 2003.
 60. The following is a selection of English language articles that appeared before 2005: Lucas Lukumbo, "Tanzania: Grazing or Farming – Land Conflict is Escalating," *Global News*, October 1, 1998; James Mpinga, "Usangu: Where the Gods are Not Just Crazy, But Angry, Too," *The East African* (Nairobi), July 7–13, 1999; Deodatus Mfugale, "Human Activities Threaten Tanzania's Biodiversity," MISAnet/Panafrican News Agency, November 20, 2000; "Save Usangu Valley, says JET Member," *The Guardian*, March 5, 2001; Lawi Joel, "Water of Great Ruaha is Explosive Capital in Usangu," *The Guardian*, June 11, 2002; Collins Ochieng, "When Pastoralists eat Cultivators," *The Guardian*, February 5, 2003; Mwondoshah Mfanga, "Usangu Wetland becomes a Desert," *Sunday Observer* (Dar es Salaam), October 4, 2004.
 61. For one episode: Charles Kizigha, "Power Crisis Looms as Mtera Level Plunges," *Daily News* (Dar es Salaam), October 20, 2004; Tuma Abdallah, "Ten Days to go at Mtera Dam," *Daily News*, October 28, 2004; Tuma Abdallah, "Yona: No Plan to Close Mtera," *Daily News*, November 1, 2004; Tuma Abdallah, "No Plan to Close down Mtera Dam," *Sunday News*, November 7, 2004.
 62. SMUWC made a special effort to woo the media following a particularly negative experience in 1999, when the project was accused in a workshop of disseminating "voodoo science" and subsequently ridiculed in the national press: SMUWC Project, "Managing Water Resources"; Thomas, King, and Kayetta, "People, Perspectives and Reality," 212. SMUWC was later an important influence on the government's commitment to restoring year-round flows in the Great Ruaha River by 2010. This pledge was first made by the Prime Minister, Frederick Sumaye, at the Rio + 10 Preparatory Meeting in London on March 6, 2001, and was repeated in later meetings. The project made the most of this opportunity to gain a favourable press for its work, and paid for its own announcement: "Maji Mto Ruaha Kuanza Kutiririka Tena – Changamoto Kubwa kwa Taifa," *Majira* (Dar es Salaam), November 8, 2001; also Nelson Goima, "Govt to Restore Ruaha Water Flow – PM," *The Guardian*, May 22, 2002; Pudenciana Temba, "Efforts to Restore Great Ruaha Waterflow Under Way," *Sunday News*, May 26, 2002. These events had also involved the World Wide Fund for Nature (WWF), and the Prime Minister's pledge provided WWF-Tanzania with a clear objective for its Ruaha Water Programme, which has been evolving (along with its title) since 2001: WWF-Tanzania, "Stakeholders and Planning Workshop"; URT, "Proposal for the Funding of the Great Ruaha River Catchment Programme."
 63. SMUWC Project, "Baseline 2001," iv, 95–7; SMUWC Project, "Livestock," 1, 4–11; Lankford et al., "Entrenched Views," 142–4; Thomas, King, and Kayetta, "People, Perspectives and Reality," 208–14.
 64. Lawi Joel, "They Disfigured the Great Ruaha," *The Guardian*, March 7, 2002; Deodatus Mfugale, "The 'Resurrection' of Usangu Game Reserve," *The Guardian*, March 13, 2002.

Both correspondents were members of JET, the Journalists Environmental Association of Tanzania.

65. Deodatus Mfugale, "The 'Resurrection' of Usangu Game Reserve," *The Guardian*, March 13, 2002.
66. Gerald Kitabu, "Premier Okays Use of Mtera Dam Water to Generate Power," *The Guardian*, January 12, 2006; Patrick Kisémbó, "Power Rationing Starts Today," *The Guardian*, February 2, 2006; BBC News, "Tanzania Cuts Power after Drought," *BBC News*, February 2, 2006; Michael Haonga, "TanESCO Eases Power Rationing," *The Guardian*, March 31, 2006; Editorial, "Power Cuts Bad News Indeed," *Daily News*, May 18, 2006; Charles Kizigha, Editorial, "Power Cuts Critical against Total Blackout – TanESCO," *Daily News on Saturday* (Dar es Salaam), September 16, 2006; TANESCO, "TanESCO Ends Power Rationing in December 2006," TANESCO online news highlights, undated; Daniel Mshana, "Great Ruaha Power Project Crucial," *The Guardian*, March 2, 2007.
67. "Kikwete's Remarkable First 100 Days," *Tanzanian Affairs* 84 (May–August 2006), 1–11; also "President Kikwete – No Let Up," *Tanzanian Affairs* 85 (September–December 2006), 1–5.
68. Deogratius Kiduduye, "Invasion of Mbarali Valley Irks Minister," *The Guardian*, March 2, 2006; also Gerald Kitabu, "Pastoralists 'Invade Usangu Game Reserve,'" *The Guardian*, March 2, 2006.
69. Bilal Abdul-Aziz, "Our Environment Fragile, JK Warns," *The Guardian*, March 10, 2006.
70. Editorial, "Eviction of Usangu Herdsmen is OK, But?" *The Guardian*, March 14, 2006.
71. Nico Mwaibale, "Livestock Keepers Heed Kikwete's Directive," *The Guardian*, March 22, 2006.
72. URT, *A Strategy for Urgent Actions*, 2.
73. "Government Statement On Urgent Measures Aimed at Environmental Conservation And Preservation Of Water Sources In The Country Issued By Vice-President Dr Ali Mohamed Shein," *The Citizen* (Dar es Salaam), April 6, 2006; see also Editorial, "Political Will Key to Turn Around the Environment," *The Guardian*, April 4, 2006.
74. Kasembeli Albert, "Usangu Game Reserve Cleared of Cattle Herders," *The Guardian*, June 26, 2006. See also Cover story/Editorial, "Ihefu Must Never Go Dry," *Kakakuonal Tanzania Wildlife* 41 (April–June 2006), 4–5; John Waluye, "Moves to Save Ihefu Wetlands in Usangu Plains Underway," *Kakakuonal Tanzania Wildlife* 41 (April–June 2006), 13–17.
75. According to the article this is the number of evictees reported by the District Commissioner. Compare this with the 1990 population estimates shown in Table 1.
76. Kasembeli Albert, "Usangu Game Reserve Cleared of Cattle Herders," *The Guardian*, June 26, 2006.
77. Roman Massawe, Project Manager, Usangu Game Reserve, interviewed at reserve headquarters, August 24, 2007.
78. I interviewed the following WWF staff in 2007: Stephen Mariki, Conservation Director, WWF Tanzania Programme Office, Dar es Salaam, August 13, 2007; Dr Hermann Mwageni, Country Representative, WWF Tanzania Programme Office, Dar es Salaam, August 13, 2007; Petro Masolwa, Programme Coordinator, Ruaha Water Programme, WWF Tanzania Programme Office, Iringa, August 27, 2007; Dr Hussein Sosovele, Programme Coordinator, Policy Implementation Programme, WWF Tanzania Programme Office, Dar es Salaam, September 3, 2007. I also talked to a former employee of the Ruaha Water Programme in Rujewa: Dorothy Bikurakule, Dar es Salaam, August 8, 2007.
79. *Usangu Game Reserve General Management Plan*; "Mbarali District Council Medium Term Strategic Plan for the Livestock Sector," draft, August 2005.
80. Walley, *Rough Waters*.
81. Walley does not claim this either: see *Rough Waters*, 37–8, 44–52, 59–66, 201–4, 250–1.
82. Peter Fox, Sue Stolberger and Geoff Fox, "The Not So Great Ruaha River," document comprising cover sheets and three letters addressed to Jon Salmon, British High Commission, Dar es Salaam, November 21, 2000.

83. FoxTreks and member of this family firm ran Ruaha River Lodge, Mufindi Highland Lodge (Fox Farm), Fox Camp – Mikumi, and Lazy Lagoon Island north of Dar es Salaam. Another family member independently owned and managed Mwangusi Safari Camp in Ruaha National Park. The lodge and camp were the first and for many years only facilities of this kind in the park.
84. FORS was begun in 1984.
85. This was first proposed in the FAO report on *The Rufiji Basin*: see Hazlewood and Livingstone, *Development Potential*, 2.10–2.12, 4.2–4.6; also Hazlewood and Livingstone, *Irrigation Economics*, 40–65, 112–13; URT, “Madibira Rice Scheme,” 15; Ssemugenze, “Optimal Timing.”
86. I first used it myself in a WWF meeting: Walsh, “‘The Not-So-Great Ruaha.’”
87. URT, “Speech by the President,” 23. The original Swahili record has simply “Mto Ruaha Mkuu Umeanza Kukauka katika Baadhi ya Maeneo,” literally “The Great Ruaha River has begun to dry up in some sections”: URT, *Bunge la Tanzania, Majadiliano 1/3, 30/12/05*, 25.
88. Fox, “Overview of the Usangu Catchment.”
89. For details see footnote 63 above.
90. Fox, “Overview of the Usangu Catchment,” 13–14.
91. *Ibid.*, 1.
92. In 2000 there was only one tourist lodge and one tented camp inside the park, both run by members of the Fox family. By 2005 three more tented camps had been added (one just outside of the park) and the number of regular flights into the park increased: see Tanzania National Parks, *Ruaha National Park*, 58; Mercer and Jafferji, *Ruaha National Park*, 130–5.
93. One of these, also a national issue, was the problem of the deforestation caused by widespread charcoal production.
94. This paragraph summarises a detailed account of events given to me in confidence by one of the participants in them. It was elicited through correspondence and an interview in August 2007, during which I was shown relevant documentary material. Another informant provided a more general account of the lobbying and its significance.
95. My key informant, whose name I have kept confidential (it does not appear in this paper).
96. As well as Bruce Fox’s letter to the then Minister for Natural Resources and Tourism (dated March 24, 2004), letters by him to the Director General of TANAPA (March 31, 2004) and the Chief Executive Officer of the Global Environment Facility (GEF) (April 22, 2004) were also attached. The last of these letters was one of a number of communications about the possibility of damming the Ndembera River.
97. URT, “Wildlife Management Area/Pilot Wildlife Management Areas,” 40.
98. URT, *The Wildlife Policy of Tanzania*.
99. For published references to this visit and its consequences: URT, *Ratiba ya Kazi Mei, 2006*; John Waluye, “Moves to Save Ihefu Wetlands in Usangu Plains Underway,” *Kakakuonal Tanzania Wildlife* 41 (April–June 2006), 13–17; Kasembeli Albert, “Usangu Game Reserve Annexed to Ruaha National Park,” *The Guardian*, August 8, 2006.
100. This is the shorter name that the company was now using (instead of the original Usangu Hunting Safaris Ltd).
101. The Minister’s announcement was not reported in the press, though the President’s speech was: URT, “Speech by H. E. Jakaya Mrisho Kikwete”; “JK Expresses Commitment to Empower Local Hunters,” *Daily News*, June 22, 2006. News of the proposed park expansion later filtered into the press through statements made by the Usangu Game Reserve Manager, Roman Massawe: Kasembeli Albert, “Usangu Game Reserve Cleared of Cattle Herders,” *The Guardian*, June 26, 2006; Deodatus Mfugale, “Usangu Game Reserve to Become Part of Ruaha National Park,” *The Guardian*, July 11, 2006; Kasembeli Albert, “Usangu Game Reserve Annexed to Ruaha National Park,” *The Guardian*, August 8, 2006.
102. Elisante Pallangyo, “Destination Ruaha: Where the North Marries the South,” *Kili Album* (Tanzania Tourist Board) 1 (March–June 2007), 39–42; Gervase Tatah Mlola, “Ruaha: Creating Africa’s Largest Wildlife Paradise in Tanzania,” *Twiga Times* (The Tourism Magazine of Tanzania Tour Operators) 10 (June–October 2007), front cover

- and 14; Beatrice Philemon, "Tanzania Mulls Setting up Africa's Largest Recreational Area," *The Guardian*, May 21, 2008.
103. Peter Mwaibofu, "Hifadhi ya Taifa ya Ruaha-USangu Yasubiriwa," *Kakakuona* 1 (April–June 2007), 52–5. An interviewee gave the date of the RCC meeting as July 22, 2006.
104. For further details and analysis of the role of pro-pastoralist advocacy in these events see my report on "Pastoralism and Policy Processes."
105. The committee had visited Mbarali at the end of July 2006. For an account of this visit see John Makunga, "Wafugaji Waliohamishiwa Ihefu wazidi Kuharibu Vyanzo vya Maji Mbarali," *Kakakuona* 24 (July–September 2006), 22–4.
106. URT, *Bunge la Tanzania, Majadiliano*, 4/44, 16/8/06, 30–31; "Ihefu's Vegetation Coming back to Life," *The Guardian*, August 22, 2006.
107. URT, *Bunge la Tanzania, Majadiliano*, 9/12, 14/11/07, *Maswali na Majibu No. 159*, 6.
108. URT, *Maelezo ya Waziri Mkuu*.
109. URT, "Hotuba ya Mheshimiwa Jakaya Mrisho Kikwete."
110. Ole Mwarabu, "Taarifa ya Uchunguzi wa Uhamishaji."
111. Lucas Liganga, "Cattle Die Migrating from Ihefu to New Design[at]ed Grazing Districts," *This Day* (Dar es Salaam), February 22, 2007.
112. URT, *Tamko la Serikali*.
113. Ole Mwarabu, *Taarifa ya Uchunguzi: A Report on Eviction*.
114. PINGOs Forum et al., "Lobbying and Advocacy Work."
115. PINGOs Forum et al., *Lobbying and Advocacy*.
116. URT, *Bunge la Tanzania, Majadiliano*, 7/9, 20/4/07, 98.
117. *Ibid.*, 8/14, 2/7/07, 118.
118. These figures are at odds with those given by the Prime Minister in April 2007, when he told parliament that it had been estimated that 235,000 cattle should be removed from Ihefu (i.e. Usangu Game Reserve), but that a total of 303,354 had subsequently been evicted from Mbarali District, 130,737 to Lindi Region, 72,517 to Coast Region, and 100,000 to Chunya District in Mbeya Region: URT, *Bunge la Tanzania, Majadiliano*, 7/9, 20/4/07, 98.
119. URT, *Bunge la Tanzania, Majadiliano*, 8/30, 24/7/07, 23, 59–61, 65–7, 78–9, 92, 108–9, 114–15; Judica Tarimo, "MPs Want Compensation for Ihefu Evictees," *The Guardian*, July 25, 2007; Tamali Vullu, "Wabunge Watetea Wafugaji Ihefu," *Tanzania Daima* (Dar es Salaam), July 25, 2007; Halima Mlacha, "Serikali Kuhakiki Mifugo," *Habari Leo* (Dar es Salaam), July 25, 2007.
120. URT, *Bunge la Tanzania, Majadiliano*, 8/ 31, 25/7/07, 49, 128–9.
121. *Ibid.*, 9/12, 14/11/07, 34–35 70–73, 81. The elevation of Mkomazi Game Reserve to national park status was also debated and approved in the same session.
122. I have corrected a spelling mistake in this quote, which is taken from an email written on January 25, 2007.
123. Quote from an email written on January 25, 2007 in reply to another email.
124. Quote from an email written to me on August 29, 2007.
125. Walsh, "The Development of Community Wildlife Management," 4–5, 13–14.
126. For clients' complaints see "An Important Warning about Usangu Safaris," *The Hunting Report* 23 (August 2007), and the online forum relating to this article at <http://huntingreport.com> (accessed May 16, 2008).

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