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Executive Summary

In preparing this report, the authors were asked to examine Namibia's water resource management law as it relates to the mining industry. With an eye toward understanding what water laws and regulations were currently in force, how they were implemented and enforced, and in what direction the legal regime is headed, the authors examined the Namibian Constitution, case law that interprets its provisions, statutes, Governmental policies, and many reports prepared by Government agencies and non-governmental organizations.

The authors explored the impact of mining operations in Namibia in terms of the economic value they engender and the ecological costs they exact, and how mining fits into Namibia's economy and its larger goals for sustainable development. The report examines the industry as a whole and how it has developed in the 19 years since Independence, and focused on a specific case study involving the Valencia Mining Company, a corporation that recently applied for permission to undertake a great deal of water abstraction in the arid western region of Namibia. Because water policy is inextricably linked to so many other aspects of personal, social, cultural, economic, and political life and development, the authors eschewed a strictly economic analysis and examined the subject from a normative perspective in keeping with Namibia's sustainable development framework and progressive values.

The report has four main sections. Part I summarizes the state of current knowledge about Namibia's water resources and the effect that mining industry projects have had on it. It explores how Namibia's arid, variable climate and its sparsely populated landmass pose unique challenges for water management, and how mining, while a valuable part of the economy, carries significant risks for the health of Namibia's water supply.

Part II examines domestic water law, focusing on how it has evolved over time and what it might look like as it continues to evolve. Provisions from the Constitution and court decisions interpreting them reveal the foundation for a progressive, sustainable water policy. The Water Act, No. 54 of 1956, a statute that predates Independence remains the foundation of the regulatory framework, while the ambitious Water Resources Management Act, No. 24 of 2004, is still awaiting final implementation. Finally, four other statutes are considered for what they indicate about the shape and direction of Namibian water law.

Part III uses a case study from recent litigation in the Namibian courts to examine the extent to which the current water regime assists or undermines the interests of the various stakeholders. This case study illustrates well how an outdated legal structure gave rise to a murky, opaque permitting process, which in turn led to an unclear court decision. The case study also highlights the many ecological and economic risks discussed in Part I, and the mechanisms of application of the many laws discussed in Part II.

Part IV draws out several themes that emerged during the research for the report, and makes simple recommendations by which they can be implemented. Ultimately, Namibia's Water Resources Management Act, No. 24 of 2004, will prove to be an extremely valuable tool for safe, sustainable development and utilization of the country's water resource. To the extent that any action can help facilitate its implementation, that action is encouraged.

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The Reality of Namibia's Water Resources

The fundamental truth about water in Namibia is that it is a scarce, fragile resource. In the dozens of policy papers assessing the country's water reserves, both non-governmental organizations and Government agencies always agree one point: Namibia is the driest country south of the Sahara.¹ With large swaths of the Kalahari and Namib Deserts within its geopolitical boundaries, Namibia's population of a little more than two million people² is spread out over an area of 824,272 square kilometers.³ While this means that Namibia has a population density of two people per square kilometer,⁴ its status as one of the most sparsely populated countries in the world does not relieve the country of the tremendous pressure arising from the scarcity of water. It was this concern that led the Namibia Economic Society to devote its July 2006 newsletter to answering the question "Water—Is it a Blessing or Curse for Namibia?"⁵

A fact sheet prepared for Namibia's presentation to the 2002 World Summit for Sustainable Development pointed out that: "Perennial rivers are only on the northern and southern borders, with some 1300 [kilometers] of dry land in between."⁶ Indeed, all of Namibia's permanent waterways—the Kunene River in the northwest, the Okavango, Zambezi, and Kwando-Liyanti-Chobe Rivers in the northeast, and the Orange River in the south—are situated on the country's international borders, and none of these rivers have their source within the country. This means that successful management of these resources requires political and diplomatic cooperation with each of Namibia's neighbors.⁷ While Namibia has, for the most part, been successful in maintaining harmony with its neighbors on this issue through the raft of multilateral basin use and management agreements it has signed,⁸ the central challenge facing Namibian policymakers now--and likely well into the future--where water use and mining policies intersect, concerns what happens in the vast space between the country's river borders.

Without permanent rivers flowing through the interior of the country, the arid central region is sustained and fed only by groundwater reserves and the few ephemeral rivers that are revived for very brief periods following heavy rainfall.⁹ These two types of water resources support approximately 50% of Namibia's population across 80% of the country's territory.¹⁰ Though this scarcity places stress on the quality and availability of water generally, the

1. See, e.g., SUSTAINABLE DEVELOPMENT IN NAMIBIA: NOTES ON ENVIRONMENTAL ISSUES CONTRIBUTING TOWARD SUSTAINABLE DEVELOPMENT IN NAMIBIA, WORLD SUMMIT FOR SUSTAINABLE DEVELOPMENT 4 (Aug. 26 – Sept. 4, 2002) ("Namibia is the driest country in sub-Saharan Africa"); DEP'T OF WATER AFFAIRS, MINISTRY OF AGRICULTURE, WATER & RURAL DEVELOPMENT, GROUNDWATER IN NAMIBIA: AN EXPLANATION TO THE HYDROGEOLOGICAL MAP 11 (Greg Christelis & Wilhelm Struckmeier, eds., Dec. 2001) ("[T]he prevailing high temperature in the rainy season and huge evaporation losses make Namibia not only the driest country in southern Africa, but most probably in the whole of the Southern Hemisphere.") [hereinafter GROUNDWATER IN NAMIBIA]; HARTMUT KRUGMANN, DIRECTORATE OF ENVIRONMENTAL AFFAIRS, MINISTRY OF ENVIRONMENT & TOURISM, FUNDAMENTAL ISSUES AND THE THREATS TO SUSTAINABLE DEVELOPMENT IN NAMIBIA 10 (Nov. 2001) ("Namibia is the driest country south of the Sahara") [hereafter KRUGMANN]; MINISTRY OF AGRICULTURE, WATER & RURAL DEVELOPMENT, NATIONAL WATER POLICY WHITE PAPER: POLICY FRAMEWORK FOR EQUITABLE, EFFICIENT, AND SUSTAINABLE WATER RESOURCES MANAGEMENT AND WATER SERVICES 1 (2000) ("Namibia is, as already mentioned, sub-Saharan Africa's driest country because roughly 90% of its area consists of desert, arid and sub-arid land"); DEP'T OF WATER AFFAIRS, MINISTRY OF AGRICULTURE, WATER & RURAL DEVELOPMENT, NAMIBIA'S WATER: A DECISION MAKERS' GUIDE 1 (Piet Heyns et al., eds., 1998) ("Namibia is the driest country south of the Sahara and water is scarce") [hereinafter NAMIBIA'S WATER: A DECISION MAKERS' GUIDE]; Shirley Bethune et al., Review of Namibian Legislation & Policies Pertinent to Environmental Flows, 30 PHYSICS & CHEMISTRY OF THE EARTH 894 (2005) ("Namibia is the driest country in sub-Saharan Africa. The country's mean annual rainfall varies from <50 mm at the coast to over 600 mm in the Northeast and is variable in both time and space").

2. 1 REPUBLIC OF NAMIBIA, THIRD NATIONAL DEVELOPMENT PLAN, 2007/2008-2011/12 46 (rev. Sept. 6, 2008).

3. NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 10.

4. KRUGMANN, *supra* note 1, at 19.

5. *Water: Is It a Blessing or Curse for Namibia?*, NEWSLETTER (Namibia Econ. Soc'y, Windhoek, Namibia), July 2006, at 1.

6. SUSTAINABLE DEVELOPMENT IN NAMIBIA, *supra* note 1, at 4.

7. NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 10, 12-13; GROUNDWATER IN NAMIBIA, *supra* note 1, at 24.

8. REPUBLIC OF NAMIBIA, THIRD NATIONAL DEVELOPMENT PLAN, *supra* note 2, at 304-05.

9. MINISTRY OF AGRICULTURE, WATER & RURAL DEVELOPMENT, SOCIO-ECONOMIC AND FINANCIAL ISSUES: THEME REPORT 28 (Mar. 2000) [hereinafter SOCIO-ECONOMIC AND FINANCIAL ISSUES: THEME REPORT].

10. NAMIBIA'S WATER: A DECISION MAKERS' GUIDE, *supra* note 1, at 61.

11. One account states that the population is growing at a rate of about 2.5-3.5%, and that it is expected to reach 2.6 million by 2011 and 3.5 million in 2021. See GROUNDWATER IN NAMIBIA, *supra* note 1, at 26.

population growth¹¹ and the spread of economic development has, as noted in the Government's 2000 Water Policy White Paper, "altered the situation to the point where naturally occurring surface supplies are seriously inadequate and vulnerable to pollution."¹² This dilemma has been caused by the manner in which individual and corporate users have chosen to allocate the available resources and by climatic factors.

As President Nujoma wrote in a foreword to a book instructing Namibian policymakers on factors to consider in adopting water management policies:

In the arid areas of the world, the rainfall is normally low, variable and unreliable. Namibia is the most arid country in the Southern African Region and therefore our water is scarce and often does not always occur at places where it is required or is most useful to our people.¹³

The Government's Water Policy White Paper states that rainfall "ranges from virtually zero along the coast to a maximum of 700 mm in the extreme north-east."¹⁴ Despite this wide range of precipitation rates, however, only 8% of Namibia's land mass receives more than 500 mm of rain per year. This is significant because only those regions that reach the 500 mm threshold have been able to sustain pastoral agriculture and crop production from year to year.¹⁵ In fact, 22% of the Namibian land mass receives on average less than one centimeter of rain each year.¹⁶

The variability of annual rainfall is another factor that must be considered in assessing the scope of the scarcity problem. A person who is able to use this summer's abundant rains, for example, cannot make plans for next year's crops based on the amount of this year's rainfall. This variability is particularly evident in the driest parts of Namibia, such as the western reaches, where much of the present uranium mining speculation activities are taking place.¹⁷ In Namibia, the regions with a lower average rainfall are also more likely to face substantial variability in year-to-year totals.¹⁸

The scarcity of river-fed water and the lack of sufficient and consistent rainfall in the in-land areas of the country have a significant impact on the economic and normative objectives of resource management policy. A Government report focusing on the socioeconomic consequences of water management policy found that annual rainfall variability and world prices for exports constitute the two major points of vulnerability for the Namibian economy.¹⁹ Because export prices are controlled largely by "exogenous" forces and are therefore out of Namibia's direct control, the report counseled that to mitigate the effects of the country's variable rainfall, "the pattern of domestic production should be shaped" toward the most efficient use of water.²⁰ Similarly, a study of the rather limited water resources of western Namibia warned that rainfall "[v]ariability is a normal part of Namibia's arid climate," and that "[a]ny attempts to develop land- and water-use management plans in the western catchments must account for the finite nature of the resources and the effects of short and long-term climatic variation."²¹

However, the variable rainfall and the lack of internal permanent water resources do not provide the full picture. While the combination of these two factors creates a worrisome water situation in western Namibia, global and country-specific climatic conditions significantly compound the challenge. First, temperature, exposure, and morphology make it extremely difficult for rainfall, even very heavy rainfall, to recharge groundwater resources. Typically, only 2% of all precipitation creates run-off, the surface water upon which some users are able to rely, while vegetation drinks up about 14% of the rainfall. Due in large part to other factors that conspire to make Namibia's climate so arid, such as "high temperatures and clear skies,"²² 83% of the rainfall evaporates. Given that such a high percentage of rainfall evaporates and that surface users and the natural environment immediately consume an additional 16% of the rainfall, only 1% of the annual rainfall is available to recharge the groundwater reserves that people and companies use throughout the year when surface water is unavailable.²³ This imbalance is striking; even

12. NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 11.

13. NAMIBIA'S WATER: A DECISION MAKERS' GUIDE, *supra* note 1, at iv.

14. NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 10.

15. GROUNDWATER IN NAMIBIA, *supra* note 1, at 23.

16. *See id.*

17. *See id.*; PETER J. JACOBSON ET AL., EPHEMERAL RIVERS AND THEIR CATCHMENTS: SUSTAINING PEOPLE AND DEVELOPMENT IN WESTERN NAMIBIA 15 (1995); *see also* Brigitte Weidlich, *African Civil Society Hits Back at Uranium Mining*, THE NAMIBIAN, Oct. 28, 2008, available at <http://www.namibian.com.na/2008/October/national/08366AED3E.html> (reporting that "about 20 uranium-mining companies are prospecting for uranium" in the Namib-Naukluft Park in the west").

18. JACOBSON ET AL., *supra* note 17, at 13.

19. SOCIO-ECONOMIC AND FINANCIAL ISSUES: THEME REPORT, *supra* note 9, at 8.

20. *Id.*

21. JACOBSON ET AL., *supra* note 17, at 25.

22. NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 10.

23. NAMIBIA'S WATER: A DECISION MAKERS' GUIDE, *supra* note 1, at 47. *See also id.* at 61; GROUNDWATER IN NAMIBIA, *supra* note 1,

if all possible water sources are combined in Namibia, the “[w]ater potentially lost through evaporation is at least five times greater than water gained from rainfall.”²⁴ Worse still, groundwater is particularly susceptible to pollution, and once polluted can remain so for many years.²⁵ And overexploitation can easily lead to depletion, termination, or destruction of the groundwater resource.²⁶

Given the country’s small, irregular, and slow-to-recover water resources, analysts have long predicted that global climate changes will have severely deleterious effects on Namibia’s water supply. Rising temperatures around the globe are expected to increase the variability of rainfall beyond the fluctuations seen at present.²⁷ This will occur despite the fact that Namibia’s own contribution to climate change is, and in all likelihood will remain, “negligible” at “less than 0.1 per cent of global emissions, if a world average per capita emission rate is assumed.”²⁸ Namibia is, because of bush encroachment in the wetter north, currently a carbon sink.²⁹ While this helps to offset the effects of heavy emissions countries, that fact alone cannot, however, maintain milder temperatures or consistently heavy rain clouds as the rest of the world changes. In its most recent National Development Plan, the Government acknowledged the situation, stating bluntly that “[c]limate change will negatively affect economic and social development, especially with regard to food, health and livelihood security; coastal and marine populations; and water recharge and availability.”³⁰ Because climate change is an unfolding global phenomenon, the two-pronged strategy suggested to reduce its negative effects is necessarily reactive: “adaptation to anticipated changes” by acting as cautiously as possible and “adaptation to unanticipated conditions by maintaining flexibility in the event of unforeseen disaster.”³¹ While future studies will shed more light on the empirical effects of the changing global climate, the present conditions demand that policymakers exercise prudence in formulating and implementing plans for development.

Given the fragility of the Namibian western ecosystem, it seems, as the 2000 National Water Policy White Paper notes, “[w]ater resource management in the Namibian context is, above all, an exercise in risk management.”³² The interconnectedness of water resources in Namibia, where every action affects all other users in myriad ways both great and small, ensures that every user bears some responsibility for the success or failure of any overarching water policy. Simply put, “[w]hen developing water resources in a region, [the country does] not create water. Rather, [it] redistribut[es] it across the landscape, often to the detriment of another user.”³³ Water’s scarcity and fragility amplify the starkness of the tradeoffs in Namibia. There are certain uses that, while extensive, occupy a higher plane of discussion because they concern the physical wellbeing and survival of Namibian citizenry. And the overuse of water resources by certain industrial sectors, such as the mining sector, can affect significantly the availability of clean water for such uses. In evaluating water use by the mining industry, it is important to bear in mind that the economic

at 36 (“According to the overall water balance of Namibia, it is estimated that on average only 2% of the annual rainfall creates surface runoff, and only 1% contributes to groundwater recharge.”).

24. NAMIBIA’S WATER: A DECISION MAKERS’ GUIDE, *supra* note 1, at 46. *See also* Shirley Bethune et al., *supra* note 1, at 895 (“Evaporation far exceeds precipitation throughout Namibia and although evaporation rates vary considerably with season and in different parts of the country, the mean annual potential evaporation ranges between 2500 mm and 3800 mm which is many times the annual rainfall.”).

25. NAMIBIA’S WATER: A DECISION MAKERS’ GUIDE, *supra* note 1, at 71 (“Groundwater resources are susceptible to pollution, because rainwater washes the pollutants on the surface into the soil and this water eventually infiltrates down into the water in the aquifer.”) & 75 (“Apart from natural minerals in groundwater, pollution from human activities poses the greatest threat to the quality of groundwater.”).

26. The dangers of pollution and overexploitation are inextricably linked. Even if misuse does not result in physical collapse, it can destroy the resource in a practical sense by placing it beyond the economic means of the users. As a government report makes plain,

Over use of groundwater could lead to the termination of an aquifer as a water resource. The collapse of aquifers is commonplace where abstraction causes the drawdown of the aquifer levels. Similarly abstraction will inevitably lead to some alteration in the groundwater flows, potentially leading to the presence of saline water which is unsuitable for either human or livestock consumption. Such a deterioration of quality, combined with the increased costs of pumping can lead to situations where it becomes uneconomical for groundwater to be used further; hence the supply of water from a source is not sustainable in the hydrological sense. SOCIO-ECONOMIC AND FINANCIAL ISSUES: THEME REPORT, *supra* note 9, at 66.

27. NAMIBIA’S WATER: A DECISION MAKERS’ GUIDE, *supra* note 1, at 13, 46.

28. KRUGMANN, *supra* 1, at 30.

29. *Id.* A carbon sink is a natural or manmade reservoir that accumulates and stores some carbon-containing chemical compound for an indefinite period.

30. REPUBLIC OF NAMIBIA, THIRD NATIONAL DEVELOPMENT PLAN, *supra* note 2, at 147.

31. *Id.*

32. NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 15.

33. JACOBSON ET AL., *supra* note 17, at 65.

value of a given project is not fixed, but rather changes with the market price of the ore.³⁴ As the market value of the commodity fluctuates, a mine's production rate, and in turn its demand on the water supply, change as well.³⁵

In order to determine how such a scarce resource should be allocated among end users, an assessment of the role mining plays in the Namibian economy relative to other industrial sectors must be undertaken. To measure the comparative value of different end uses, and to gain a sense of the opportunity costs involved in choosing one proposal over another, Namibian policymakers often refer to the amount of value added to the economy per liter of water used.³⁶ While such a calculus might distort the impacts of a given activity—i.e., an industrial activity that uses little water but creates other substantial social costs like air pollution, would be preferred over an activity that is deemed equally valuable to the country but uses more water and involves no other social costs—its specific focus on the value of water makes it a relevant touchstone for an inquiry into the intersection of mining and water policies. This is particularly true for a study of Namibia, where water is so rare and valuable, and where national policymakers have already signaled the special role of water by relying on that standard to a large.³⁷ While a broader inquiry into sustainable development in all industrial sectors would no doubt take into account a more complete set of factors, this limited cost-benefit analysis remains central in determining the advisability of water use despite its myopia.

A 1998 joint report by the Government and the Desert Research Foundation of Namibia estimated that for each cubic meter of water consumed, fish processing was worth N\$451 to the economy, transportation was worth N\$314, and tourism was worth N\$113.³⁸ Further down the scale, diamond mining added N\$45 of value per cubic meter of water consumed, and uranium mining added N\$32 of value to the Namibia economy for each cubic meter of water used.³⁹ Although uranium prices in 1998 were very low in comparison to what they are now, a report published two years later offered a similar hierarchy of efficiency and value, stating that fish processing added N\$708 in value and that the total across the entire manufacturing sector added N\$292.80. The service sector provided an average of N\$574.50; transportation generated N\$315, hotels and restaurants generated N\$188.30, and all other services combined accounted for N\$782. Non-diamond mining brought in N\$41.80.⁴⁰ Finally, the Third National Development Plan, revised in September 2008, estimated that the agricultural sector added N\$4.54 per cubic meter, the service sector added N\$551.92, transportation added N\$1,771.61, and hotels and restaurants generated N\$164.81. Manufacturing added N\$260.62 of value, while the mining sector added N\$127.20 per cubic meter. When broken down between diamond and non-diamond mining, the Ministry of Agriculture, Water and Forestry found that diamond mining added N\$891.14 and all other mining added N\$39.58.⁴¹ In other words, the kind of mining contemplated at present has consistently added value of N\$30 to N\$40 per cubic meter of water used.

Despite the occasional divergence in value for a specific sector or subsector over a period of several years, a clear picture emerges. Agriculture provides by far the least amount of value added, while transportation and other service industries provide by far the most. This disparity is understandable given that the daily water needs of a farmer are considerably greater than that needed by a bus driver. More revealing than this comparison, though, is the fact that mining, while a considerably more valuable sector than agriculture, is also dramatically less valuable to the economy than the service sector. Perhaps most pertinent for this analysis though, is the fact that once the value added by diamond mining is removed from the equation—diamond mining is not undertaken in the extremely arid parts of Namibia where prospectors seek to mine uranium—the value to the economy generated by all other mining activities combined is only approximately N\$40 for each cubic meter of water consumed. A more precise figure, focusing solely on the value added by uranium mining, would further elucidate the picture, but given that tourism and mining are in competition in the arid west, it seems accurate to conclude that tourism presents a much more efficient use of water than mining. This is true whether the point of comparison is the tourism figure from the earliest data, N\$113, or whether the basis for comparison is the more inclusive (though less precise) figure aggregating the value added from a combination of the hospitality, transportation, and trade subsectors.

34. SOCIO-ECONOMIC AND FINANCIAL ISSUES: THEME REPORT, *supra* note 9, at 7-8.

35. *Id.* at 6.

36. *Id.* at 8.

37. *See, e.g.*, REPUBLIC OF NAMIBIA, THIRD NATIONAL DEVELOPMENT PLAN, *supra* note 2, at 123.

38. NAMIBIA'S WATER: A DECISION MAKERS' GUIDE, *supra* note 1, at 19.

39. *Id.*

40. SOCIO-ECONOMIC AND FINANCIAL ISSUES: THEME REPORT, *supra* note 9, at 8.

41. REPUBLIC OF NAMIBIA, THIRD NATIONAL DEVELOPMENT PLAN, *supra* note 2, at 123. These figures reflect the value added per cubic meter of water used; diamond mining adds more value per meter but all other mining may be more prevalent, which is why the mining sector figure amounts to N\$127.20.

Beyond the geographic competition that places the mining and tourism industries in tension, a comparison between the mining and service sectors is appropriate because both use approximately the same amount of water in a given year. In 2001-2002, for example, the mining sector accounted for 3.3% of total water use, with non-diamond mining accounting for 3% on its own. The service sector, including all trade, hospitality, transportation, communication, and other services, accounted for 2.9% of total water use.⁴² Because these sectors represent largely opposing interests in western Namibia, and because they use roughly the same amount of water, the comparison in terms of value added to the Namibian economy is particularly apt. Though it may seem insubstantial viewed in isolation, the use of 3% of the total amount of water available annually constitutes a significant use of the country's water supply. Households accounted for 12.2% of water use in Namibia in 2001-2002, and agriculture accounted for 73.6% of all water used in Namibia (in addition to the comparatively low value of foodstuffs, this high use naturally diminishes the average value of production).⁴³ While agriculture by far accounts for the largest sector use of Namibia's water resources, for the purpose of analyzing water policy in the mining context, agriculture and personal consumption should exist on a separate plane.

Unlike the extractive industries or service industries, agriculture sustains the population in a direct and irreplaceable way. Though commercial agriculture accounts for two-thirds of the total agricultural water use, communal agriculture programs account for the other third.⁴⁴ If the goal of Namibia's development is to benefit the Namibian population as a whole, then communal agriculture programs that result in the provision of food for direct community consumption cannot reasonably be considered interchangeable with mining projects that ship ore overseas for private profit. This seems particularly true when viewed in light of the fact that "over 70% of the population are subsistence farmers and their livelihood is thus gained in circumstances of extreme harshness and stress."⁴⁵

Given a large enough economic base, some economists have suggested that Namibia could import food and consume only "virtual water" in its food production. The water used in agriculture would be a "virtual" use by Namibia, in the sense that the water needed for agriculture would come from a foreign nation's supply.⁴⁶ In practice, Namibia already imports "between 50% and 80% of its grain requirements each year," using revenues from beef and fish exports to pay for that grain, maize, and wheat.⁴⁷ Namibia's policy of maintaining an internally stable food source,⁴⁸ the already strong reliance on imported grain, and the high degree of subsistence farming throughout the country seems, in combination, to indicate that further development of a "virtual water" program can come about only after significant structural changes in the agricultural sector take place.

The relevant comparison is between those stakeholders that can be expected to compete for the same shared resource, provided that a normative concern, such as the promotion of the general health of the population, does not overtake the economic value of any particular stakeholder's project. Because 70% of Namibians reap their food through subsistence farming, the high-use, low-payoff agricultural sector cannot serve as a reasonable comparator for the mining sector.⁴⁹ Similarly, because a "supply of a basic minimum quantity of clean water is often seen as a basic human right" and "[s]uch a stance means that water is not always and everywhere a pure economic good," it would be inappropriate to weigh individual daily water consumption against daily water use for the extraction and sale of mined ore, an economic product.⁵⁰ Once these premises are accepted and agricultural and personal consumption are removed from the comparison chart, less than 15% of Namibia's scarce water resources is available for use by all other sectors combined. Within this frame of reference then, the 3% of the overall pie that the mining and service sectors each independently account for comprise a very substantial portion of the total water resources available for economic projects. Given this scarcity-within-scarcity scenario then, the value added metric becomes more important, as policymakers seek to devote the remaining resources to the highest revenue producer and to monitor

42. *Id.* at 122.

43. *Id.*

44. *Id.*

45. NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 10.

46. NAMIBIA'S WATER: A DECISION MAKERS' GUIDE, *supra* note 1, at 26.

47. *Id.* at 25-26.

48. *See id.* at 25.

49. If the mining company were to compensate farmers or were to fund a robust virtual water program that guaranteed the food supply—in other words, if the company ensured that the mining operations would not negatively impact the present users—then the comparison could be explored. Until that point, however, it does not seem reasonable to compare financial benefits for a tiny fraction of the population and the basic food needs of a vast majority.

50. SOCIO-ECONOMIC AND FINANCIAL ISSUES: THEME REPORT, *supra* note 9, at 46.

the less profitable sectors to ensure non-interference with the needs of the higher value producers.

None of the preceding analysis implies that efforts to make individual and agricultural consumption more efficient should not be a critical part of Namibia's national water policy. Certainly increasing the efficiency of agricultural and personal consumption will pay dividends, but because the Government of Namibia serves the citizens of Namibia,⁵¹ it cannot really favorably compare the water needs of a private company in search of financial return to the basic life-sustaining water needs of the people. Further, population growth trends project that by 2015 "twice as many Namibians will have to make their living off the same finite resources we are using today."⁵² Because of this projection, analysts have argued that "[t]he single greatest threat to efforts at achieving sustainable resource use and a better quality of life for all Namibians is the rapid expansion of Namibia's population."⁵³ In sum, the portion of Namibia's naturally scarce water resources that is available for use by the mining industry is very small and it is likely to remain so. Because a rapidly increasing population will exert new pressures on that resource, even the adoption of new sustainable development practices may not solve the dilemma, but may only mitigate the effects of population growth.⁵⁴

It is against this backdrop that Namibia's water policy has been tested within the mining context. Put plainly by the Ministry and the Desert Research Foundation, "There is no great underground lake or sea of water in Namibia and aquifers are not linked to an infinite source of fresh underground water."⁵⁵ In the region where mining companies or their proxies are currently focusing their speculation efforts, there are no perennial surface water resources; all of the water used for exploration—and ultimately for mining—comes from unexplored subterranean aquifers. Compounding the physical scarcity, individual personal needs for water for agriculture and household maintenance limit the available resources to less than 15% of the capacity.⁵⁶ Inevitably, Namibia's regulation of mining operations in the western region of the country will be shaped by the scarcity and fragility of the country's water resources, the increasingly irregular climate, the extreme aridity of the area, and the economic realities of mining.

51. *See* THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 1(1) ("The Republic of Namibia is hereby established as a sovereign, secular, democratic and unitary State founded upon the principles of democracy, the rule of law and justice for all.").

52. JACOBSON ET AL., *supra* note 17, at 117

53. *Id.*

54. *Id.* ("Unless the current growth rate is reduced, twice as many people will be using the resources that we are currently using, assuming that our efforts at sustainable use are successful.")

55. NAMIBIA'S WATER: A DECISION MAKERS' GUIDE, *supra* note 1, at 71.

56. *See supra* note 43 & accompanying discussion.

Namibia's Domestic Laws Affecting Water Resource Management

A. APPLICABLE PROVISIONS FROM NAMIBIA'S CONSTITUTION

This section describes Namibia's current domestic legal obligations and suggests various sources of law that might better achieve the goal of sustainable management of water resources. When Namibia achieved independence in 1990, necessity required that the country retain many of the laws that had been in effect under the previous regime. Though there existed the potential that these laws, drafted and implemented under circumstances far different from modern-day Namibia, could hamstring the new republic, the country's progressive Constitution ensures that the old laws will be tailored to meet present policies and needs. Looking at water policy in the mining context, there are constitutional provisions ensuring the sanctity of the natural environment, mechanisms by which the Government can investigate misuse of resources, and mechanisms for the enforcement of sound management policy. Additionally, the Constitution contains provisions that entitle an aggrieved stakeholder to seek administrative justice in the event the Government makes a decision that has an adverse impact on his or her substantive rights.

1. Article 1

The Constitution vests authority in "the people of Namibia who shall exercise their sovereignty through the democratic institutions of the State."⁵⁷ Though it comes as no surprise in a document founding a "sovereign, secular, democratic and unitary State founded upon the principles of democracy, the rule of law and justice for all,"⁵⁸ this precept will loom large in the realm of Namibian water policy as its phrasing seems designed to ensure an active, continuous role for the Namibian citizenry in the execution of state policy. Even if this type of hortatory language is common to the founding documents of many democracies, in the Namibian context it establishes the baseline that when the Government acts, it does so on behalf of the people, and should act with an effort to ensure both the rule of law and justice for each person. This mandate is important with regard to Namibian water law, since the existing regulatory structure was promulgated under apartheid and retains some of the biases inherent in that system.⁵⁹ Article 1's guarantee of the sovereignty of the people of Namibia stands in contrast to many of the water management laws currently in force.

2. Article 18

Article 18 ensures administrative justice by obliging executive agencies to "act fairly and reasonably and comply with the requirements imposed upon such bodies and officials by common law and any relevant legislation," and by affording those aggrieved by official action "the right to seek redress before a competent Court or Tribunal."⁶⁰ Though this provision creates only a general framework (a cause of action and standard of review) for challenging Government action, it is of significance because it is the only provision that ensures a fair, direct process for persons to challenge agency action. At present, Namibia does not have an administrative justice act, although there have been discussions about creating one.⁶¹ This gap has led some experts to claim that there is a generally accepted framework for hearing and resolving administrative disputes, and others to argue that because "the rules are not written down, they are only in the minds of some specialised academics or practitioners."⁶² The "lack of guidelines

57. THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 1(2).

58. *Id.* at art. 1(1).

59. *See infra* Part II(B)(1) discussing The Water Act, No. 54 of 1956.

60. *Id.*

61. Catherine Sasman, *Namibia: An Act for Administrative Justice in Namibia?*, ALLAFRICA.COM, Aug. 19, 2008, available at <http://allafrica.com/stories/200808190842.html> ("Discussions among members of the legal fraternity, Government institutions and academics are currently underway to come up with a resolution on whether or not Namibia should develop an Administrative Act to give legislative effect to Article 18 of the Namibian Constitution.").

62. *Id.*

for the administrative officials [. . .] in their daily work” is quite troubling, because “for less qualified persons [the agreed-upon process] is not traceable,” and as a result, officials misapply the law, frustrating stakeholders.⁶³

The Namibian High Court ruled in March 2008 that “Article 18 of the Constitution requires that the administrative action [. . .] be fair and reasonable.”⁶⁴ *Gunther Kessl and Others v. Ministry of Lands and Resettlement* was brought by German-speaking landowners after the Ministry of Lands and Resettlement expropriated their land without providing the owners the opportunity for meaningful participation in the proceeding in their native language.⁶⁵ The Court excoriated the Ministers in charge of the process for “fail[ing] to deal with the requirements and duties they were empowered to perform at the time that they were authorised to do so” and for not keeping records to show “who did what and when.”⁶⁶ After analyzing the ministers’ performance in light of the specific legislative requirements of the Agricultural Land Reform Act, No. 16 of 1995, the Court concluded that the Minister and the Commission failed to comply with the Act’s mandatory requirements of genuine consultation, a reasonable time for the landowners to formulate a response, and the proper service of process. Even if the Government has a general policy in favor of expropriation, it is “still necessary for the Minister to act in terms of the provisions of the Act” on each occasion in which the Minister seeks to exercise the power to expropriate land and offer it for resettlement purposes.⁶⁷

Until a statute delineating the rules for administrative procedures is codified in a law that is passed by Parliament, signed by the President, and published in the *Government Gazette* to make it operative, policymakers and stakeholders will have to rely upon the High Court’s decision and the general principles set forth in Article 18 as the sum total of the explicit administrative process governing the evaluation of agency action. Though Article 18 merely sets forth a basic outline for an administrative process and does not delineate any specific substantive rules regarding the regulation of resource management rights, the Court’s recent decision in *Kessl*, and the text of Article 18 provides stakeholders with opportunities to challenge adverse administrative actions.

3. Article 25

Article 25(1) expressly guarantees the “Fundamental Human Rights and Freedoms” specified in Chapter 3 of the Constitution.⁶⁸ Article 25 states that unless authorized by the Constitution:

Parliament or any subordinate legislative authority shall not make any law, and the Executive and the agencies of Government shall not take any action which abolishes or abridges the fundamental rights and freedoms conferred by this Chapter, and any law or action in contravention thereof shall to the extent of the contravention be invalid.⁶⁹

Subsection 2 of Article 25 enables a person who feels that his fundamental rights have been infringed to seek judicial protection from the offending action or request that the country’s Ombudsman investigate and assist the victim.

Subsection 3 empowers the courts “to make all such orders as shall be necessary and appropriate to secure such applicants the enjoyment of the rights and freedoms conferred on them under the provisions of this Constitution.”⁷⁰

In a case deciding that Article 12’s guarantee of a fair trial was violated when indigent defendants were denied legal assistance, the Supreme Court of Namibia noted that Article 25 demands broad judicial enforcement of constitutional protections.⁷¹ Moreover, because constitutional guarantees trump schemes created by statute, judicial

63. *Id.*

64. *Gunther Kessl, Heimaterde CC, & Martin Joseph Riedmaier v. Ministry of Lands and Resettlement, et al.*, Judgment, (P)A 267/2005, ¶ 66 (Mar. 6, 2008).

65. *Id.*

66. *Id.* at ¶ 69.

67. *Id.* at ¶ 96. Of particular interest, the Court found longstanding precedent that requires “that where a particular person is authorised by legislation to take decisions, he, and he alone, should take those decisions. The designated and authorised decision-maker cannot abdicate or delegate these powers.” *Id.* at ¶ 109. This requirement is relevant because it adds clarity to the administrative process, and, should the norm have been better understood in 2007 and early 2008, would have preempted many of the problems confronted in the Forsys example below.

68. THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 25.

69. *Id.*

70. *Id.* at art. 25(3).

71. See *Government of the Republic of Namibia and Others v. Mwilima and All Other Accused in the Caprivi Treason Trial*, 2002 NR 235, 256 [Jutalaw] (June 7, 2002) (hereafter “the *Caprivi Treason Trial*”) (“However, where the obligation of the first respondent arises from its duty to uphold the provisions of the Constitution, in this case art 12, the Court, in enforcing that right, can never be said to intrude into the affairs of Parliament. By doing so the Court is merely doing what is required of it in terms of the Constitution, and is exercising the powers given it according to art 25(2) and (3).”).

enforcement of fundamental rights is mandated even where state resources are limited.⁷² Where the Constitution creates a positive right—an obligation placed on government to act affirmatively to provide a benefit to people, as opposed to an obligation placed on government to protect people from some specific harm—no statutory scheme can derogate from that right, and the courts have the power to rule broadly to ensure that such rights do not become illusory.⁷³ In those instances in which a law passed under the new Constitution—or held over from before independence—is inconsistent with these guarantees of fundamental rights, courts may rule that portion of the offending law is invalid.⁷⁴

There are several provisions in the Constitution that could be read, in combination with Article 25, to establish a right to access to water. Though the Constitution does not discuss water directly when it speaks of fundamental rights, it seems that such a right may exist as a fundamental precondition or inextricable part of one of the enumerated rights. For example, Article 6 guarantees that “[t]he right to life shall be respected and protected”,⁷⁵ and Article 8(1) declares that “[t]he dignity of all persons shall be inviolable.” Article 8(2) guarantees that in judicial proceedings and the enforcement of penalties, the state will maintain respect for human dignity at all times. The same article prohibits torture or cruel, inhuman or degrading treatment or punishment.⁷⁶ Though this language has been construed within the context of detainees, rights within the criminal justice system, its separation from Article 8(1) implies that Article 8(1) guarantees a broader, more expansive right than one intended solely to ensure the right to bodily integrity and freedom from physical or psychological abuse during imprisonment.

Because human life requires access to a clean, consistent, and ample supply of water for consumption and for hygiene and sanitation, there is a strong argument to be made that the courts would find that right to human dignity necessarily includes such access. A court could make that finding under these provisions of the Constitution alone, or it could do so in conjunction with Article 144 and the burgeoning body of international law holding that water is a fundamental human right. A judicial finding of a human right to water would enable courts to invalidate policies that fail to ensure the existence of that right and reverse administrative actions that threaten people’s access to the country’s water supply.

The South African High Court has already issued such a ruling. In *Mazibuko and Others v. City of Johannesburg and Others*, the South African High Court recognized the unity of water and life and the centrality of water to a person’s ability to exercise his basic rights. The Court held that, “[w]ater is life. Life without water is not life. One cannot speak of a dignified human existence if one is denied access to water. The right to water is the bedrock of most of the rights contained in the Bill of Rights.”⁷⁷ Though no Namibian court has yet made such a pronouncement, this principle is central to the Government’s water policy.⁷⁸ Indeed, the notion of the right to water as a fundamental

72. See *id.* See also *Namibia Grape Growers and Exporters Association and Others v. Ministry of Mines & Energy and Others*, 2004 NR 194, 212-13 [Jutalaw] (Nov. 25, 2004) (“However, because of the origin of the right, being the Constitution itself, it can not be said that it is the Minerals Act, or for that matter Part XV thereof, which abolishes or abridges (see art 25) the fundamental right of ownership protected under art 16. The Minerals Act does no more than give effect and content to the right so vested by the Constitution, and Part XV contains reasonable provisions for the balancing of this right vis-à-vis any other interests or rights, e.g. that of the landowner.”).

73. See *Caprivi Treason Trial*, 2002 NR at 256 (discussing Article 16’s just compensation for state expropriation, the court stated, “If the compensation paid is not just I cannot imagine anybody arguing that the Court, after determining what just payment would be, would be intruding on the function of Parliament by ordering the State to pay such compensation. If this were not so it would mean that the right becomes illusory and affords no protection to the aggrieved person.”).

74. THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 1(a) & (b). See also *Myburgh v. Commercial Bank of Namibia*, 2000 NR 255, 263 [Jutalaw] (Dec. 8, 2000). The Supreme Court has found that Article 25 demands a declaration from the courts to invalidate a declaration from the legislature (be it the modern National Assembly or the legislature that promulgated laws before Independence). This is different from the way common law is treated under the Constitution. To find that invalidation under Article 25 required a court declaration, the Court compared Article 25 to Article 66(1), which invalidates “the customary law and the common law of Namibia in force on the date of Independence” to the extent it conflicts with the Constitution or statutory law. See *id.* at 263 (“Article 66(1), as previously pointed out, renders invalid any part of the common law to the extent to which it is in conflict with the Constitution. As also pointed out, this occurred when the Constitution took effect. The article does not require a competent Court to declare the common law unconstitutional and any declaratory issued by a competent Court would be to determine the rights of parties where there may be uncertainty as to what extent the common law was still in existence and not to declare any part of the common law invalid.”).

75. THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 6.

76. *Id.* at art. 8.

77. *Mazibuko and Others v City of Johannesburg and Others* (Centre on Housing Rights and Evictions as Amicus Curiae) (06/13865) [2008] ZAGPHC 128, ¶ 124 (April 30, 2008).

78. See NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 21, (“Water is essential to life, and adequate supply of safe drinking water is a basic human need, the provision of which is a key policy imperative. [. . .] Water is essential to the eco-systems of the natural environment, on which all social and economic activity depends.”).

human right is one of the foundational principles of the still-to-be commenced Water Resources Management Act.⁷⁹ Thus, while there is no judicial construction of the arguable applicable constitutional provisions yet on the books, Namibia seems poised to move in the same direction as South Africa, and Article 25 would provide the enforcement mechanism that could be used to ensure greater participation by a wider range of stakeholders, and as a result, the creation of more efficient and environmentally sustainable policies.

4. Article 91

In Chapter 10 of the Constitution, which deals with Ombudsman's role and responsibilities, Article 91(c) creates a duty for the Ombudsman "to investigate complaints concerning the over-utilization of living natural resources, the irrational exploitation of non-renewable resources, the degradation and destruction of ecosystems and failure to protect the beauty and character of Namibia."⁸⁰ Section 3(1)(c) of the Ombudsman Act, No. 7 of 1990, gives this passage legislative effect, using the same language to create a duty for the Ombudsman to investigate instances of environmental despoliation upon receipt of a complaint or request from a member of the public.⁸¹

Article 91(c), along with Article 95, were among the first constitutional provisions in the world ensuring the maintenance of a sustainable natural environment.⁸² Article 91 effectively removes the difficult standing rule hurdle (*locus standi*) and allows a party to complain of misuse of natural resources directly rather than requiring an aggrieved party first to establish the initial proposition that access to water is a fundamental human right and then challenge the governmental action that violated that right under Article 25. The Office of the Ombudsman does not have a great deal of enforcement power on its own,⁸³ so in some ways, the situation under Article 91, with broad investigatory powers and limited enforcement capabilities, merely reverses the strengths and weaknesses encountered under Article 25.

Although Article 91 may appear only to create a duty to investigate on the part of the Government, it is important for another reason: it empowers individuals to monitor the treatment of the environment and to help ensure its continued vitality. There are many reasons why over-utilization, irrational exploitation, and degradation of resources are of serious concern to the people of Namibia, and it is telling that there is a constitutional provision focusing on the natural environment's intrinsic worth in Article 91(c). Every person in Namibia is allowed to file a complaint when the environment is injured or damaged, regardless of whether he is directly affected by that damage. This dovetails nicely with similar statements in Article 95 and Article 100, discussed below, but Article 91 is not limited by Article 101 as are Articles 95 and 100. It is thus directly enforceable by courts. Ultimately, then, even if the provision's own direct enforcement mechanisms are somewhat weak, it defines the natural environment itself as a legitimate stakeholder in state policy, and thus uniquely affirms the country's responsibility to sustainably manage its resources.

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5. Article 95

Chapter 11 sets forth principles intended to guide the Government in making state policy. Article 101 makes clear that the provisions of the Chapter are "not of and by themselves enforceable by any Court, but shall nevertheless guide the Government in making and applying laws to give effect to the fundamental objectives of the said principles."⁸⁴ Even though these principles are not legally enforceable mandates,⁸⁵ they may serve as persuasive authority to guide the courts. Article 95 contains a series of principles intended to "actively promote and maintain

79. See Water Resources Management Act, No. 24 of 2004, at § 3(c) (stating that a fundamental principle of state water policy is recognition of the "essentiality of water in life, and safe drinking water a basic human right").

80. THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 91(c).

81. Ombudsman Act, No. 7 of 1990 (*comm.* June 14, 1990), § 3(1)(c).

82. SUSTAINABLE DEVELOPMENT IN NAMIBIA: NOTES ON ENVIRONMENTAL ISSUES CONTRIBUTING TOWARD SUSTAINABLE DEVELOPMENT IN NAMIBIA, *supra* note 1, at 2 ("[Namibia] was one of the first countries worldwide to incorporate environmental and sustainable development clauses within its national constitution. It gave power to these clauses by enabling its citizens to raise issues of environmental concern via the Office of the Ombudsman.").

83. While the Act provides the Ombudsman with broad authority to conduct investigations, *see* Ombudsman Act, No. 7 of 1990 at § 4, ultimately, the Ombudsman's role culminates in either pursuing judicial redress on behalf of the complainant, *see id.* at § 5, or preparing a report for presentation to the Cabinet and National Assembly, *see id.* at § 6. The distinction made above is that the Ombudsman may facilitate and advocate for remedial action, but the office is not empowered to order remedial action on its own initiative.

84. THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 101.

85. Though Article 91, by contrast, is enforceable, not too much should be made of this point, probably, since it would be specifically enforceable only if someone challenged the duty of the Ombudsman to investigate an environmental complaint or the Ombudsman refused to investigate such a complaint. Still, it is useful to note both Article 95's aspirational language and Article 91's declaratory statements about the environment's intrinsic worth.

the welfare of the people.” Article 95(l) encourages policies that ensure:

[the] maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future; in particular, the Government shall provide measures against the dumping or recycling of foreign nuclear and toxic waste on Namibian territory.⁸⁶

While aspirational, Article 95 has nevertheless attracted a great deal of attention.⁸⁷ Because it is a broad statement of particular methods and ideas for furthering the State’s goal of sustainable environmental management, it has influenced Namibian policy since the first environmental policies were adopted following Independence.⁸⁸ Though its articulated policies cannot be enforced by a court without implementing legislation, Article 95’s clarity of vision make it a particularly persuasive statement of state principles for any court called upon to consider the allocation of water resources in the future.

The strong disapproval of inviting foreign nuclear and toxic waste addressed in Article 95 may be important to policymakers considering the granting of permits for uranium mining. The operation of any uranium mine will involve the issue of burying tailings, the radioactive waste product that mining produces, and current mining proposals under consideration in Namibia call for the burial of tailings at the site of the mine.⁸⁹ While Article 100 grants the state ownership of all natural resources that are not otherwise lawfully owned, a fair argument could be made that the radioactive waste, once it has passed through the mining process, is no longer the sort of natural resource contemplated by that article.⁹⁰ That is to say, even though the tailings might not constitute toxic waste shipped in from abroad as discussed in Article 95, the principle behind the prohibition would still seem applicable. Moreover, there still remains the possibility that the tailings, owned by a foreign conglomerate seeking to dispose of them, might be construed by a court as foreign toxic waste.

Plainly, Namibia’s goal in excluding foreign toxic waste was to prevent the country from becoming a global landfill. Article 95 is intended to ensure that polluters do not deposit hazardous waste in the ground and then abscond, leaving Namibians to deal with the real world physical consequences for generations to come. The only practical difference, then, between a foreign company that brings a boatload of toxic waste to deposit in Namibia and a foreign company that produces truckloads of toxic waste inside the country that it deposits at the mining site is that the latter operation is more efficient. Given the early 1990s attitude of some policymakers, including former World Bank economist and United States Treasury Secretary Lawrence Summers,⁹¹ writing this principle into the Constitution was an important, forward-thinking move.

Because uranium tailings pose a significant, lingering threat to the country’s water resources, their disposal will continue to loom large in any discussion about the implementation of a cohesive water policy. Though unenforceable on its own, Article 95 arguably stands for Namibia’s decision to take a cautious and strict approach toward foreign prospectors producing uranium tailings intended to be disposed of in the country.

6. Article 100

Article 100 of the Constitution provides that “[l]and, water and natural resources below and above the surface of the land and in the continental shelf and within the territorial waters and the exclusive economic zone of Namibia

86. *Id.* at art. 95(l).

87. *See, e.g.*, Shirley Bethune et al., *supra* note 1, at 896 (“Maintaining the dynamics essential for ecosystem functioning and biodiversity is specified in the ‘environmental clause’ or Article 95(l) of Namibia’s Constitution.”).

88. *See, e.g.*, MINISTRY OF WILDLIFE, CONSERVATION & TOURISM, NAMIBIA’S GREEN PLAN 35 (C.J. Brown ed., 1992) [hereinafter NAMIBIA’S GREEN PLAN] (“Article 95 of the Namibian Constitution, [. . .] although not legally enforceable in court, remains the most important environmental guidelines to policy makers and courts interpreting new laws.”).

89. *See* Water Sciences CC, *Appendix D: Valencia Uranium Hydrogeological Study*, in ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN FOR THE VALENCIA URANIUM PROJECT 30-33 (Feb. 2008).

90. *See* THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 100 (“Land, water and natural resources below and above the surface of the land and in the continental shelf and within the territorial waters and the exclusive economic zone of Namibia shall belong to the State if they are not otherwise lawfully owned.”).

91. In 1991, while at the World Bank, Summers wrote in a memo, “Just between you and me, shouldn’t the World Bank be encouraging more migration of the dirty industries to the LDCs (lesser developed countries)? [. . .] I think the economic logic behind dumping a load of toxic waste in the lowest wage country is impeccable and we should face up to that. . . . I’ve always thought that underpopulated countries in Africa are vastly underpolluted; their air quality is vastly inefficiently low [sic] compared to Los Angeles or Mexico City.” JADE McCLUNE, LABOUR RESOURCE AND RESEARCH INSTITUTE, WATER PRIVATISATION IN NAMIBIA: CREATING A NEW APARTHEID? 91 n.261 (2004). Though he claimed his tone was intentionally ironic, the policies that followed in its wake were not, and progressives have claimed it was effectively the “working thesis behind [the 1990s’] dominant global economic policies.” *Id.*

shall belong to the State if they are not otherwise lawfully owned.”⁹² On its face, this pronouncement seems at odds with the private right to abstract water that exists under the current Water Act, No. 54 of 1956. As with Article 95, Article 100 is located in the chapter on principles of state policy that are not directly enforceable, but may serve as persuasive authority to the courts.⁹³

Article 100 seems to be a much stronger statement of the policy than that expressed in Article 95. The statement that all natural resources “shall belong to the State if they are not otherwise lawfully owned”⁹⁴ seems to be less a guiding principle than a wholly-contained policy. It appears on its face to be a straightforward constitutional grant of natural resources to the State. In contrast, Article 95 merely states the principle that the State “shall actively promote and maintain the welfare of the people.”⁹⁵

Indeed, both policymakers and the courts have treated Article 100 as an enforceable, fully realized grant of power to the State. As discussed below, many analysts have based their criticism of the Water Act on its seeming incompatibility with Article 100’s specification of state ownership. Further, in a recent case, the Supreme Court treated Article 100 as directly enforceable in its own right, without need for additional legislation for this purpose. In *Namibia Grape Growers and Exporters Association and Others v. Ministry of Mines and Energy and Others*, the Supreme Court accepted and affirmed the fact that “the parties were ad idem that Article 100 of the Constitution vested mineral rights, for so far as they were not privately owned, in the State.”⁹⁶ The Court’s ruling is significant in that a major Government agency, the Ministry of Mines and Energy, a trade association organization, and the Supreme Court all concurred that Article 100 operated to vest ownership rights rather than merely articulating some aspirational goal.⁹⁷ Significantly, the Court did not engage in any discussion about the role of Chapter 11’s guiding principles, but rather merely acknowledged that Article 100 created a constitutional mandate.

Without a constitutional amendment, there is no way to formalize this interpretation of Article 100, but such action seems unnecessary given that commercial enterprises, Government agencies, and the courts all concur that public ownership of natural resources is the law of the land. It may be that Article 100 includes the phrase “if they are not otherwise lawfully owned” and is included in Chapter 11 because the Water Act contemplates the private ownership of at least some of the country’s water resources. If the intention was not to permit private ownership of such resources, policymakers must act quickly to clarify that the State owns all water resources. Such action is critical if the country is committed to developing a plan for sustainable environmental management, because the scarcity and fragility of Namibia’s water resources demand an encompassing, comprehensive policy.

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7. Article 144

Article 144 of the Namibian Constitution provides that “[u]nless otherwise provided by this Constitution or Act of Parliament, the general rules of public international law and international agreements binding upon Namibia under this Constitution shall form part of the law of Namibia.”⁹⁸ This Article may also have the effect of encouraging the sustainable management of environmental resources.

First, by making applicable not only the international instruments that Namibia has signed and ratified, but also the rules of customary international law (referring to “the general rules of public international law”), Article 144 creates the rules of decision for cases involving the domestic enforcement of many of the rights and understandings delineated in Article 25. The notion that water is a human right, so eloquently addressed in the recent South Africa High Court case, and so emphatically insisted upon in international treaty bodies, is ripe for judicial recognition in Namibia.

There are, then, at least three distinct paths such an Article 144 guarantee (and similar understandings that emphasize sustainable management) may take. First, the Government, whether by means of administrative decree, legislative pronouncement, or judicial finding, can recognize that the human right exists as a part of customary international law. Upon such official recognition, the right would be immediately enforceable in Namibia. Second, the courts could read Article 144 in conjunction with the decision in *Mazibuko* and Article 95, and find that providing

92. THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 100.

93. *Id.* at art. 101 (stating that although not legally enforceable by any Court, “[t]he Courts are entitled to have regard to the said principles in interpreting any laws based on them.”).

94. *Id.* at art. 100.

95. *Id.* at art. 95.

96. 2004 NR 194, 209 [Jutalaw] (Nov. 25, 2004).

97. *Id.* at 213.

98. THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 144.

access to water is a critical part of maintaining human dignity and preserving human life and that it constitutes a fundamental right under Chapter 3. Finally, and perhaps most directly, a court could simply enforce the applicable provisions of a treaty addressing the right.

The Namibian Supreme Court has recognized that the guarantees of the International Covenant on Civil and Political Rights⁹⁹ (“ICCPR”) “must be given effect to” by the Namibian Government.¹⁰⁰ The Court ruled that Namibia “not only has an obligation to foster respect for international law and treaties as laid down by art[icle] 96(d) of the Constitution but it is also clear that [the ICCPR] is binding upon the State and forms part of the law of Namibia by virtue of art[icle] 144.”¹⁰¹ Articles 95 and 96 carry equal constitutional weight, as Article 95 lays out environmental management principles, and Article 96 delineates principles for foreign policy actions. By finding that Article 144 establishes a more definitive statement of incorporation by reference of international law than the language in Article 96(d), stating that the Government must “foster[] respect for international law and treaty obligations”,¹⁰² the Namibian Supreme Court affirmed that Article 144 is a robust tool for Namibian policymakers seeking to incorporate the mandates of international law into Namibian law.

Despite the Court’s strong endorsement of the monist view (of direct treaty enforcement), there may be some support in practice for the view that international treaties and rules of customary international law must first be codified in domestic law before they are susceptible to enforcement. For example, Section 48 of the recently passed, but not yet enacted Environmental Management Act, No. 7 of 2007, allows the relevant minister to “introduce legislation in Parliament or make such regulations as may be necessary for giving effect to an international environmental agreement to which Namibia is a party.”¹⁰³ Its permissive language (“may” instead of “shall”) is likely intended to empower the Minister to ensure compliance by delineating specific and detailed regulations not included in such treaties rather than supporting the proposition that legislation is needed in order for an international agreement to have the force of law. To insist upon the enactment of national legislation as a prerequisite to any enforcement of binding international law would render Article 144 superfluous. Such an interpretation of a constitutional provision seems highly unlikely. Article 144 then would seem to provide policymakers with a wide range of legal tools to use when attempting to develop and implement sustainable environmental management policies.

B. NAMIBIAN STATUTES THAT DIRECTLY GOVERN WATER RESOURCE MANAGEMENT

Where the analysis of the relevant constitutional articles revealed both procedural and substantive elements that could assist leaders in the formulation and implementation of water policy, the existing domestic law demonstrates how policymakers have chosen to deal with the ecological and economic factors since Independence. The Water Act, No. 54 of 1956, is the primary extant statute that most directly regulates groundwater abstraction for mining purposes. The Water Resources Management Act, No. 24 of 2004, which has been passed and published but is not yet in force, provides more specific procedures for water abstraction permitting that are much more tailored to Namibia’s climate and geohydrology than the Water Act of 1956. Once enacted, it will supplant the Water Act.

There are other laws that also bear on the management of the water resources. These include the Environmental Management Act, No. 7 of 2007, the Minerals Act, No. 33 of 1992, the Namibia Water Corporation Act, No. 12 of 1997, and the Traditional Authorities Act, No. 25 of 2000. For much of the country, the only water resource is groundwater and these reserves are very fragile and their scope and condition are little understood. This section focuses on how the Water Act governs applications to undertake groundwater abstraction,¹⁰⁴ and then analyzes how

99. International Covenant on Civil and Political Rights, Dec. 16, 1966, 999 U.N.T.S. 171, *entered into force* Mar. 23, 1976.

100. *Caprivi Treason Trial*, 2002 NR 235, 259 [Jutalaw] (June 7, 2002).

101. *Id.* at 260.

102. Article 96 reads in full, “The State shall endeavour to ensure that in its international relations it: (a) adopts and maintains a policy of non-alignment; (b) promotes international co-operation, peace and security; (c) creates and maintains just and mutually beneficial relations among nations; (d) fosters respect for international law and treaty obligations; (e) encourages the settlement of international disputes by peaceful means.” THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 96.

103. Environmental Management Act, No. 7 of 2007, § 48.

104. The Water Act of 1956, for instance, stipulates the creation of various bodies to manage agricultural and personal water consumption, and delineates how related government entities should interact when resolving issues related to personal consumption. *See* Water Act, No. 54 of 1956 (*comm.* July 13, 1956), as amended, §§ 34-51. Because this report examines the legal and social policy and effects of water use by mining operations and does not encompass a discussion of the entirety of Namibian water policy, it does not address these issues.

the more comprehensive but still pending legislation, the Water Resources Management Act and the Environmental Management Act, will likely affect such applications. Finally, the Minerals Act, the NamWater Act, and the Traditional Authorities Act are examined to provide a comprehensive picture of the existing regulatory structure governing the use of the country's water reserves.

1. The Water Act, No. 54 of 1956

a. Status and Background

The Water Act, No. 54 of 1956 was passed in 1956 by South Africa's apartheid government as a means of controlling access to water according to that regime's principles. The Act was "selectively applied to what was then South West Africa," and, though it has been repeatedly amended, it has remained the governing law of Namibia to the present day.¹⁰⁵ According to Namibia's 2000 Water Policy White Paper, the Act's ignominious provenance allowed the previous regime to channel "the considerable technical expertise" of the agencies charged with implementation "towards servicing the water needs of the Apartheid State."¹⁰⁶ This resulted in a dramatically inequitable distribution of the resource, which was controlled by an "inaccessible centralised bureaucracy in which the needs of the people on the ground, particularly the black majority, were not taken into account."¹⁰⁷

The central flaw of the Act is that it "ignor[es] the hydrological reality of Namibia" as it is based on a model that "applie[d] [the] rules of well-watered countries of Europe, notably seventeenth century England and Holland, to the arid climactic conditions of Namibia."¹⁰⁸ These rules include a system of riparian water rights and the private ownership of water resources that are inconsistent with Article 100 of the Constitution.¹⁰⁹ In addition to this constitutional infirmity, the Water Act of 1956 exacerbates the inequities of the old resource allocation system because it lies on top of the disparate distribution of land ownership in Namibia—which remains highly concentrated in the hands of a distinct minority and thus "perpetuates discrimination against the black majority."¹¹⁰ The inequitable structure of this framework stymies the economic development and social justice goals that the Government of Namibia has committed itself to achieving.¹¹¹

In fact, the Water Act fails to account in any way for the natural environment's new status under the Namibian Constitution. Articles 91, 95, and 100 of the Constitution make the environment itself a stakeholder in the formulation of resource management policy. The comprehensive guide prepared jointly by the Ministry and an NGO to assist Namibia's leaders on issues of water regulation states the issue plainly: a "major limitation of the existing Act, [. . .] and one that places it firmly at odds with Namibia's Constitution, is that it does not recognise the natural environment as a user of water nor as a provider of essential processes and services."¹¹²

By allocating water rights "only in the context of a land owner, not in regard to the natural environment on which Namibians depend," the Water Act fails "to recognize the downstream environment as a user."¹¹³ The disregard of the environmental consequences of considering and permitting an exclusive use of such a scarce resource has tangible effects, both physical and economic. For example, the over-abstraction of water upriver results in the death of trees downriver. The loss of trees, shrubs and other vegetation in turn harms the wildlife and livestock that the farmers rely upon and that form the foundation of Namibia's attraction for tourists.¹¹⁴ This domino effect means that the myriad losses occurring downstream "although seemingly of little immediate significance to upstream users who have captured the water, impoverish Namibia as a whole."¹¹⁵

105. NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 19; *see also* JADE McCLUNE, *supra* note 91, at 53 (describing the application of the Water Act of 1956 to Namibia). The Water Act of 1956 has been amended eighteen times, most recently by the Water Amendment Act, No. 22 of 1985, which was passed during apartheid. *See* Water Act, No. 54 of 1956.

106. NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 17.

107. *Id.*

108. JADE McCLUNE, *supra* note 91, at 56. *See also* NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 19 ("The present legal framework for water in Namibia applies the rules of the well-watered countries of Europe to the arid climactic conditions of Namibia").

109. *See* JADE McCLUNE, *supra* note 91, at 56; NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 19.

110. NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 19.

111. *Id.*

112. NAMIBIA'S WATER: A DECISION MAKERS' GUIDE, *supra* note 1, at 33.

113. PETER J. JACOBSON ET AL., *supra* note 17, at 95.

114. *See id.*

115. *Id.* This scenario reinforces the warning in the policymaker's guide that the Act is outmoded because "it does not stipulate the sustainable use of water resources in terms of social, economic or environmental sustainability." NAMIBIA'S WATER: A DECISION MAKERS' GUIDE, *supra* note 1, at 33.

Despite the significant structural problems caused by the Water Act—racial, social, political, economical, and environmental—it remains in effect to this day. By as early as 1992, the Government claimed that “[a] new Water Act ha[d] been drafted and [would] soon be submitted to parliament.”¹¹⁶ The comprehensive 2000 Water Policy White Paper was written as a first in the Government’s plan “to replace th[e] Act, and update its entire regulatory framework for managing water resources.”¹¹⁷ The more recent National Development Plan lists Parliament’s approval and publication of the Water Resources Management Act as a major accomplishment of the Government during the last five years, and establishes a five-year plan for the full implementation of the new law and regulations.¹¹⁸ It seems then that these may be the waning days of the Water Act of 1956. Nevertheless, until a new framework is formally put in place, when a company seeks to abstract a significant amount of water, the outdated Water Act will govern the process by which a potential user applies for an abstraction permit and the amounts allowed to be abstracted. For this reason, any person seeking to understand the existing regulatory structure and how it will be applied in a particular case must still take the time to understand how the Water Act and its regulations function.

b. Statutory Pro

i. The designation of subterranean water control areas.

The Water Act defines “subterranean water” in Section 27 as water that “exists naturally underground” or “water other than public water which is derived in any manner whatsoever from natural underground sources.”¹¹⁹ Though this could be read to encompass virtually all of Namibia’s water sources, Section 28 appears to limit the Act’s applicability to only an area that has been proclaimed by the president of the country as a “subterranean water control area.”¹²⁰ Under Section 28, the president must make such a proclamation in the *Government Gazette*, the Government’s newspaper of record. Before the president may issue the required proclamation, the Minister of Agriculture, Water and Forestry must determine that the designation is in the public interest, which would not be true, if, for instance, the area under consideration “is a dolomite or artesian geological area or [if] the abstraction of water naturally existing underground in such area may result in undue depletion of its underground water resources.”¹²¹ One of the most important questions that the Ministry of Agriculture, Water and Forestry must answer then, before a permit for water abstraction can be granted, is whether the resource in question has been properly classified and proclaimed a “subterranean water control area.” Without this specific designation, no permit for groundwater abstraction can be lawfully issued, and the abstraction will have to comport with the more limited private rights the Water Act creates in Section 30.¹²²

Section 30(1) of the Act allows an owner of land to abstract any subterranean water underneath his land without having to seek any regulatory approval or classification or presidential proclamation.¹²³ However, if the water is to be sold to another entity or is to be conveyed off of the property for any purpose—even for use by the proprietor of the property—Section 30(3) requires the owner seek a permit to use or sell the water.¹²⁴

ii. Water abstraction by mining company that owns the land.

Specific to mining enterprises, Section 30(4)(a) states that the owner of a mine may abstract water from land he owns on which the mine sits without a permit when the water is “necessary for the efficient carrying on of such mining operations or the safety of persons employed therein, unless the Minister otherwise directs.”¹²⁵ A permit is *only* required if the mine owner uses subterranean water from the mining land for any other purpose,¹²⁶ or if the mine owner abstracts groundwater from a different parcel of land than the parcel on which the mine actually sits.¹²⁷

116. NAMIBIA’S GREEN PLAN, *supra* note 88, at 35.

117. NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 19.

118. REPUBLIC OF NAMIBIA, THIRD NATIONAL DEVELOPMENT PLAN, *supra* note 2, at 125, 126-27.

119. Water Act, No. 54 of 1956, § 27.

120. *Id.* at § 28.

121. *Id.*

122. As discussed below in the Forsys case study, this issue was paramount to the invalidation of the water abstraction permits that that company had received. See Wener Menges, *Court Rules in Favour of Uranium Mine*, THE NAMIBIAN, Apr. 21, 2008, available at <http://www.namibian.com.na/2008/April/national/08FC6AF1B0.html> (“With no proof of the proclamations on which the permits are supposedly based before him, it ‘would be tantamount to the Court perpetuating a legal lie, so to speak’ if he made a decision on the merits of the application, Judge Parker stated.”).

123. The Water Act, No. 54 of 1956, § 30(1).

124. *Id.* at § 30(3).

125. *Id.* at § 30(4)(a)

126. *Id.*

127. *Id.*

iii. Water abstraction by mining company that leases the land.

While this seems to redound to the mine owners' benefit, the language of the Act does not make clear what is needed in the case of a mining company operating on land that the company does not own, as in the case of leases to mining companies or companies' acquisition of mineral rights alone. In such cases, following the intent of the Act, it seems possible that the mine owner would have the right to abstract water. At the same time, however, the owner of the land, under Section 30(1) of the Act, could not sell or convey that water without a permit. Given the public interest in ensuring reasonable abstraction practices, and the wide discretion granted the Minister under the Water Act, an argument could be made that the mine owner must seek a permit for the water abstraction. This question has not yet been formally addressed, leaving a gap in the law and making it possible for Section 30(4) to be read to permit a mine owner operating under a lease or an agreement for the sale of mineral rights to engage in wholly unregulated water abstraction.

iv. Minister has unfettered discretion in issuing water abstraction permits.

The Water Act does not delineate any specific qualifications that applicants must meet before the Minister can issue a water abstraction license. Section 30(5) merely states that "[t]he Minister may, subject to such conditions as he may deem fit, [. . .] issue a permit" to the land owner or mining operation contemplated by the Section's other provisions.¹²⁸ This broad grant of authority gives the Minister unfettered discretion in deciding how to manage the water resource. Such sweeping power and legally permissible opacity could easily lead to abuse of the system, to permits granted in bad faith, or to the exclusion of key stakeholders to the decision-making process. The Directorate of Resource Management, the body within the Ministry of Agriculture, Wildlife and Forestry which houses the office charged with granting water permits, must by its mandate "implement measures to ensure the protection and sustainable utilization of the water resources of the country [and] [c]ontrol water abstraction and decide on the equitable allocation of water resources."¹²⁹ This vague mandate creates significant discretion in awarding permits that is limited only by Regulation 1278 discussed below.

Section 30(2A) of the Water Act states that "[t]he Minister may recover" the costs associated with the maintenance of water works, and "may cause the adjustments or repairs specified" to be completed.¹³⁰ Subsection (4) of Section 30 provides that "the Minister [may] otherwise direct" a mining operation away from its plans, or direct it to proceed "under permit from the Minister."¹³¹ From these sections of the Act it appears that the Minister retains broad discretion to require new permit applications or to change the parameters of a project even after he grants it approval. There is no documentation of the Minister exercising such discretion in the past, and it is possible that the decision in *Kessl* and Article 18 of the Constitution together would prevent such apparently arbitrary action. Still, if nothing else, this provision further underscores the patchwork nature of the Water Act and its unsuitability for modern-day Namibia.

v. Government may convey water from land it owns.

Under Section 30A of the Water Act, the Government may choose to convey to any individual or company any subterranean water specified as such and any other water that is abstracted from land owned by the Government.¹³² It is unclear whether a Section 30A water conveyance requires compliance with the same general permit application procedure required for water abstracted from private land that is to be conveyed off of the property as set forth in Section 30. Though this provision predates Independence, it could be read as an early effort toward the nationalization of natural resources that was eventually achieved by Article 100. Still, just as the state ownership

128. *Id.* at § 30(5).

129. Ministry of Agriculture, Water & Forestry, http://www.op.gov.na/Decade_peace/agri.htm (last visited Nov.29, 2008).

130. *Id.* at § 30(2A).

131. *Id.* at § 30(4).

132. *Id.* at § 30A. The section reads in full:

Notwithstanding the other provisions of this Chapter, the Cabinet, may, within as well as outside a subterranean water control area, convey and supply any subterranean water which has been or is abstracted or obtained in any manner whatsoever, whether before or after the commencement of the Water Amendment Act, 1985, by the State to any person for use on any land for any purpose determined by mutual agreement by the Cabinet and such person, whether such water has been or is abstracted or obtained on land belonging to the Government of the territory of South West Africa or on other land: Provided that no water so abstracted or obtained shall be so convey or supplied [. . .] if has been found on land not belonging to the Government of the territory of South West Africa unless the Cabinet has acquired a right to such water by agreement with the owner of the said land or by expropriation in accorder with the provisions of the laws. *Id.*

right in Article 100 is limited to those resources “not otherwise lawfully owned,” a broad mandate under this section would likely be limited by a requirement that the water to be conveyed must be abstracted “by the State.”¹³³ The wide-reaching mandate for the sale of water from Government land would thus extend only as far as the Government’s own water abstraction efforts had reached.

vi. Limitations on private landowner’s conveyance of impoundment of his own non-subterranean water.

If the area in question is not a designated “subterranean water control area” or if the water is not otherwise deemed to be subterranean water or water from Government-owned land, then the abstraction falls within the ambit of Section 5 of the Water Act, which governs water abstraction from privately owned land that has not been designated a subterranean water control area.¹³⁴ Under Section 5(2)(a), if an owner of private land abstracts water from his property and subsequently conveys “such water for his own use beyond the boundaries of the land on which such water is found,” the owner may only do so under the “authority of a permit from the Minister and on such conditions as may be specified in that permit.”¹³⁵ The owner also needs a permit if he plans to impound or store more than 20,000 cubic meters of water.¹³⁶ This provision is probably intended to cover proprietors of farms and mines who are seeking to ensure that they have a year-round supply of water and to guard against drought.¹³⁷ Still, if an owner of private land uses (without over-impounding) water abstracted from his land for any purpose on that land, the Act does not limit his usage in any way. The detrimental effect that private dams (holding 20,000 cubic meters or less) have on downstream users is devastating, and the Water Act’s lack of regulation of this right of impoundment creates an enormous risk to Namibia’s water supply and the possibility of finding a path toward the goal of environmentally sustainable economic development.¹³⁸

In addition to the two major permits that may control subterranean water on privately held land, there are two rural water supply permits that can be granted for non-subterranean water, and at least one of the two could be interpreted to apply to the situation of water abstraction for mining. One is a “Permit to Utilize a Controlled Water Source,” the application for which, Form WA-002, is available on the website of the Ministry of Agriculture, Water and Forestry.¹³⁹ This permit applies to water abstraction from public streams or rivers, but limits applicants use to solely agricultural irrigation.¹⁴⁰ The second permit is the “Permit for Industrial Water,” the application for which, Form WA-003, is also available at the Ministry’s website.¹⁴¹ Section 21 of the Water Act defines “industrial water” as water to be used for industrial purposes, and mining or abstraction to construct a mine would appear to qualify.¹⁴² Unlike the Controlled Water Source application, the Industrial Water application is a single page and appears designed for existing permit holders, and asks only for data from previous abstractions.¹⁴³

If these permits seem to be of little practical utility, then, the fact that they exist under the Water Act of 1956 in such a vague way again demonstrates the infirmities of that legal regime. There does not appear to be any guidance indicating how a project planner should proceed with regard to seeking the appropriate permits and there is little information assessing the comparative benefits of the different types of permits. Confirming this confusion, according to the current Director of Resource Management, Dr. J. S. de Wet, in practice, permits to use and abstract water are

133. See THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 100; Water Act, No. 54 of 1956, § 30A.

134. If the area were a “subterranean water control area,” then Section 30 would apply. See Water Act, No. 54 of 1956, § 5.

135. *Id.* at § 5(2)(b).

136. *Id.*

137. See, e.g., SOCIO-ECONOMIC AND FINANCIAL ISSUES: THEME REPORT, *supra* note 9, at 33 (“[T]he ephemeral rivers supply on average 25% of Namibia’s water through the large dams mentioned above and the many smaller farm dams.”).

138. See *id.* at 65 (stating that the argument that overuse upstream harms downstream users “is particularly true of dams on ephemeral rivers [. . .]. In such cases the water resource available to downstream users is obviously reduced or eliminated. [T]hese users also lose the resources of the riparian forests, namely fodder for livestock and wildlife which are essential resources for rural agriculture and tourism.”).

139. Dep’t of Water Affairs, Application for a Permit to Utilize a Controlled Water Source, Form No. WA-002, *available at* <http://www.mawf.gov.na/Documents/Wa%20002%20APPLICATION%20FORM.pdf>.

140. *Id.* at 5 (discussing the “Particulars of Soil Classification” for irrigation and asking for a detailed description of “the type of crops and the respective areas planned to be irrigated.”).

141. Dep’t of Water Affairs, Application for a permit to utilize a controlled water source, Form No. WA-002, *available at* <http://www.mawf.gov.na/Documents/WA%20003%20INDUSTRIAL.pdf>.

142. The Water Act, No. 54 of 1956, § 21. It should be noted that although it appears in the purpose section and throughout the Act, there is not a definition of “industrial purpose” in the Act as it is applied in Namibia. There is no reason why a mine, with its non-personal, non-agriculture, large-scale use of water, and the risk of pollution it presents should not be considered industrial.

143. See Dep’t of Water Affairs, *supra* note 141.

granted on an ad hoc basis, and are typically only challenged when neighbors complain to the Directorate about non-permitted water usage on nearby properties.¹⁴⁴ The process that seems to emerge is one in which the Ministry works to find a suitable permit for the applicant, instead of a process in which the applicant seeks to persuade the Ministry of the sustainability and acceptability of the proposal. Taken together, then, the uneven patchwork of regulations and the ad hoc approach to enforcement of the permitting scheme coupled with the unfettered discretion vested in the Minister by the Water Act, No. 54 of 1956, virtually ensures that the regulation of Namibia's scarce water resources are not being adequately protected from overuse that may quickly lead to terminal depletion.

vii. Limitations on the use of public water.

If, instead of deeming the water privately held or part of a subterranean water control area, the Ministry determines that the water in question is "public water," then Section 7 of the Water Act governs its use. Section 7 sets forth the limited circumstances under which a person can use "public water": "the immediate purpose of watering or dipping stock or drinking, washing or cooking, or use in a vehicle at that place or for the purposes of waterborne sanitation and the watering of crops on an area of land of not more than hectare."¹⁴⁵ Section 7(1)(b) allows a Government employee charged with road construction or maintenance to "take and use so much of the [public] water [. . .] as may be necessary" to complete the job at hand, provided that in doing so the worker does not deprive downstream users of water.¹⁴⁶ By explicitly granting permission for these non-burdensome usages of "public water", these provisions of the Water Act exclude heavy abstraction of "public water" for industrial purposes unless a permit is granted. This Section, added relatively recently in the long history of the Water Act, reflects the concern for downstream users on a small scale that is absent from the Act when it addresses large scale use.¹⁴⁷

Finally, the Water Act specifies that a user's failure to follow proper procedures—e.g., engaging in overuse, pollution, waste, or abstraction without permission—renders him or her susceptible to criminal penalties. However, the punishments set forth in the Act are minimal.¹⁴⁸ In addition to its other flaws then, the Act fails to create any incentive for compliance for large enterprises given that the threat of prosecution is negligible and the penalties easily absorbed into the costs of doing business.

In a 2000 report, the Ministry of Agriculture, Water and Forestry called for more centralized management of the country's water resources, requesting that users report their water usage—even if that usage did not require a permit—and that the Government stores such data in "a register of such particulars."¹⁴⁹ The 2000 report also called upon the Government to assess the total permissible abstraction from each control area, and issue permits for irrigation that would maximize efficient impact.¹⁵⁰

c. Regulations Promulgated Under the Water Act

To put the Water Act's statutory regime in effect, the Minister promulgated Regulation 1278 in 1971, outlining procedures that the Ministry must follow when issuing permits for the use of water from "subterranean water control areas."¹⁵¹ Permits for groundwater abstraction are still issued under this authority.¹⁵² Section 4(1) of the Regulation

144. Telephone Interview by Bola Olupona with J. S. de Wet, Director of Resource Management, Ministry of Agriculture, Water & Forestry, in Windhoek, Namibia (Apr. 24, 2008).

145. Water Act, No. 54 of 1956, § 7(1)(a).

146. *Id.* at § 7(1)(b).

147. Section 7 of the Water Act was amended by Section 3 of the Water Amendment Act, No. 22 of 1985. *See id.*

148. The maximum penalty for a first offense ranges from a fine of N\$100 to N\$2000 and/or prison time of three to six months imprisonment. Water Act, No. 54 of 1956, § 170. After a first conviction, a repeat or continuing offense results in fine not exceeding N\$25 to N\$100 per day, depending on the offense. Thus, so long as overabstraction brought an enterprise more than N\$200 in profits per day, breaking the law would be economically preferable to following it.

149. MINISTRY OF AGRICULTURE, WATER & RURAL DEVELOPMENT, WATER USE AND CONSERVATION: THEME REPORT 52 (Mar. 2000) [hereafter "WATER USE AND CONSERVATION: THEME REPORT"].

150. *See id.*

151. R. 1278, *Regulation in Respect of Subterranean Water Control Areas: South-West Africa* (July 23, 1971). Regulation 3 of 1278 restates what is explicitly stated in the Water Act, that no one shall abstract or use subterranean water without a permit from the Ministry of Agriculture, Water and Forestry. *Id.* at r. 3. It is assumed that subterranean water here means water that has been so designated, and would thus require a permit. Further, the titles of the officials have changed after Independence, and have been updated to reflect current nomenclature. For instance, the Director of Water Affairs now appears to be the Director of Resource Management.

152. The original permits issued in the Forsys matter, for example, cite these regulations. *See* Ministry of Agriculture, Water & Forestry, Permits No. 10611-14 (Feb. 12, 2008).

details the information that applicants for abstraction permits must provide in their applications, including:¹⁵³ (i) a description of the land from which the water will be abstracted; (ii) any purposes for which the subterranean water will be used; (iii) a description of existing boreholes, wells, and springs; (iv) a description of any equipment that will be used in water abstraction; (v) and an estimation of the amount of water that will be abstracted. If the Minister of Agriculture, Water and Forestry requires any additional information as part of the application process, applicants must provide it.¹⁵⁴

i. The lack of an enforcing governmental entity.

Section 4(2) also creates a public notification requirement whereby applicants for abstraction permits must give notice of their intentions both in the *Gazette* and in a local newspaper that circulates in the area of the intended abstraction.¹⁵⁵ The notice must include a description of the land from which water will be abstracted, the amount of water that will be abstracted, and the purpose of the abstraction. The notice must also state explicitly that “any objection to the application must be lodged with the Director [of Resource Management] within 14 days.”¹⁵⁶ Section 6 mandates that the Advisory Water Board, an entity under the jurisdiction of the Ministry of Agriculture, Water and Forestry, must wait until after the objection period has closed before it may formally consider a permit application.¹⁵⁷

No definition is provided for the composition or responsibilities of the Advisory Water Board referred to in Regulation 1278. Given that the full name of the body in the definitions section is “the Advisory Water Board for South-West Africa,” one may assume that this body is now defunct and has been replaced.¹⁵⁸ Its functions may have been subsumed by the Ministry itself after Independence. While the present version of the Act no longer includes the sections referring to the creation of an Advisory Water Board, there are references to water boards and irrigation boards in remaining sections concerning the Government’s right of entry to enforce compliance with the Act.¹⁵⁹ A Government report indicates that though Section 89¹⁶⁰ allows for the creation of irrigation boards, only one such board has come into being, and that although Section 110 allows for the creation of water boards, they “have never been established in Namibia.”¹⁶¹ The lack of clarity as to existence of a central body tasked with overseeing permit compliance further demonstrates that the Water Act is an outdated tool to address the issue of water allocation in Namibia.

If a company abstracts subterranean water without a valid permit or fails to include any of the required information in its permit application, even if the permit is granted, the company would be “guilty of an offence and liable on conviction to the penalties prescribed in section 170(1) of the [Water] Act” under Section 14(1).¹⁶² As mentioned above, however, such penalties do not provide a deterrent for a large-scale commercial enterprise. For example, those penalties include a fine not exceeding N\$500 and/or imprisonment for no more than three months.¹⁶³

While there is little spelled out in the Water Act regarding the guidelines to be followed in making permitting decisions, Sections 5, 7, 8 and 9 shed some light on the process that the Minister may use in evaluating the permits.¹⁶⁴ Section 5 states that the Minister may issue a permit allowing the applicant to take action regarding a borehole and may place conditions on the purview of the permit. Additionally, the now non-existent Advisory Water Board¹⁶⁵ must recommend an application before the Minister may consider it.¹⁶⁶

153. R. 1278, at r. 4(1).

154. *Id.*

155. *Id.* at r. 4(2).

156. *Id.*

157. *Id.* at r. 6.

158. *Id.* at r. 1.

159. *See* Water Act, No. 54 of 1956, §§ 166 & 170.

160. Adding to the challenge of understanding the patchwork Water Act, publicly available versions of the Act do not necessarily contain all provisions currently in force. For example, the copy of the Water Act that appears on the database Jutastat does not include Section 89. Only by reference to reports prepared by the Government was its existence discovered. In its current form, the Water Act is so unclear and uncertain that a well-intentioned applicant would not in all likelihood be able to find all the provisions relevant to his or her project.

161. WATER USE AND CONSERVATION: THEME REPORT, *supra* note 149, at 52.

162. R. 1278, at r. 14(1).

163. Water Act, No. 54 of 1956, § 170(1).

164. R. 1278, at rs. 5, 7, 8, & 9.

165. This is naturally rendered difficult by the uncertain existence or unknown status of that body, but discussion is included here because the specificity of its role in the process elucidates the goals and concerns that undergird the current regulatory regime.

166. *Id.* at r. 5. Again, what form this actually takes is unclear. It may be just that this in practice means the in-house staff of the Ministry’s Law Administration, charged with issuing permits, reviews the applications before sending them to the Minister for final approval.

Under Section 7, the Director must make available to the Advisory Water Board the data, information, and plans that the Board will need to make a thorough evaluation of the application.¹⁶⁷ Additionally, the Board may request that interested or affected parties (“an owner or lessee of the land, a consumer of water, bondholder or other person who in the opinion of the board is likely to be affected by any permit under consideration”) appear or send information addressing the issue of whether the permit should be granted and whether certain conditions should be imposed upon it.¹⁶⁸

The use of the permissive “may,” instead of the declarative “shall” in this context seems to be in tension with Articles 16 and 18 of the Constitution. If the Government chooses not to inform a stakeholder of a pending matter that might adversely affect his livelihood or property, it could hardly be said that he was given the adequate procedural justice required by Article 18. And certainly, if he loses tangible property, or suffers a reduction in the value of his property, the Government would owe him just compensation under Article 16.¹⁶⁹

Section 8 provides that in the event that the invited stakeholders do not provide the requested information “within the period indicated by the Board,” the Advisory Water Board shall make its recommendation without their input.¹⁷⁰ While Regulation 1278 grants the Advisory Water Board these powers, in a phone interview with the Director of Resource Management, the Director stated that the Advisory Water Board had not been convened since Namibian Independence.¹⁷¹

i. The Ministry of Agriculture, Water and Forestry’s minimal oversight role

Section 9 sets forth some of the conditions that the Ministry of Agriculture, Water and Forestry may impose if it “deem[s] necessary for an equitable distribution of water in the public interest or for the conservation of water supplies or for the protection of water sources.”¹⁷² Some of the conditions include: sealing or casing existing boreholes, measuring and regulating the quantity of water abstracted, increasing or decreasing the amount of water abstracted, preventing pollution of water, and constructing a reservoir.¹⁷³

Section 10 provides a three-year window, subject to modification by the Minister, in which a holder must complete the work authorized under a permit issued under Section 5.¹⁷⁴

Section 11 affords the Minister the right to cancel a permit or command maintenance to ensure compliance “[i]f at any time [he] is of the opinion that subterranean water abstracted . . . is not used beneficially, or that a condition . . . is not complied with.” The permit holder then must pay the expense of any such maintenance.¹⁷⁵

Section 12 reserves for the Minister the right to “control, regulate, limit or prohibit the abstraction and use of subterranean water for any purpose.” Such a decision may apply “to any person” and the Minister need only serve “notice in the *Gazette* or [. . .] in writing” to the affected person.¹⁷⁶ This provision grants wide discretion to the Minister to pursue any course of action. While certainly some flexibility is needed, it seems that Section 12 explicitly authorizes the ad hoc devolution that seems to have taken place. Given the constitutional tensions already present in the process created by Regulation 1278, it seems that Minister, free from procedural restraints and any substantial regulatory guidance, may easily run afoul of certain constitutional guarantees in attempting to pursue a sound policy.

Section 13 demands that the person who drills a borehole have the necessary experience and skill in operating such heavy machinery.¹⁷⁷ Section 14 is tied to the criminal provisions in Section 170 of the Water Act and makes it an offense to abstract water “in contravention of any provision of these Sections or a right or an obligation acquired

167. *Id.*

168. *Id.* at r. 7.

169. Article 16(2) provides, “The State or a competent body or organ authorised by law may expropriate property in the public interest subject to the payment of just compensation, in accordance with requirements and procedures to be determined by Act of Parliament.” THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 16(2). If its decision damaged or destroyed the property, the government would have effectively expropriated that property and would hence owe the aggrieved stakeholder just compensation.

170. R. 1278, at r. 8.

171. Telephone Interview by Bola Olupona with Mr. J. S. de Wet, Director of Resource Management, Ministry of Agriculture, Water & Forestry, in Windhoek, Namibia (Apr. 24, 2008). That the Board has not met and that permits continue to issue forth reinforces the ad hoc or at least somewhat disorganized approach that continued reliance on the Water Act has forced.

172. R. 1278, at r. 9.

173. *Id.* at r. 9.

174. *Id.* at r. 10.

175. *Id.* at r. 11.

176. *Id.* at r. 12.

177. *See id.* at r. 13.

or imposed by means of a permit, determination, direction or condition.¹⁷⁸ Because it is tied to the criminal offenses in the Water Act, the same problems with minimal enforcement are present here as well.

Until very recently, the Ministry has had blank PDF application forms for water abstraction permits on its website.¹⁷⁹ The relevant application is titled "Application for a Permit for a Borehole/Well/Spring in a Subterranean Water Control Area or a Public Stream."¹⁸⁰ The application form asks for basic information, including the location of the abstraction, how much water will be used, the purpose of the abstraction, the size of the boreholes, and any existing springs or boreholes being used by the permit seeker. Applicants are required to attach a farm planning map or diagram of the property to the completed application form. The application form also sets forth some of the process for evaluating a permit. In the "Office Use" segment of the application, there is a section for remarks by the Geohydrology division of the Directorate of Resource Management, the Department of Agriculture, and for the decision by the Advisory Water Board.¹⁸¹ Regulation 1278 states that the Minister cannot recommend an application that is not approved by the non-existent Advisory Water Board, and the Regulation does not specify what weight the Minister must place on the input of the Geohydrology Division or the Department of Agriculture. Still, the inclusion of these comments on the application form appears to contemplate that the Ministry will follow some type of formal review process that has never been publicly articulated.

2. Water Resources Management Act, No. 24 of 2004

The Water Resources Management Act, No. 24 of 2004 ("WRMA") was passed by Parliament, signed by the President, and published in the *Gazette* in 2004.¹⁸² Although Section 138 states that the Act "commences on a date to be determined by the Minister by notice in the *Gazette*," there has been no publication of an effective date for the WRMA during the intervening four years.¹⁸³ Though the WRMA has yet to be entered into force, Mr. F. Witbooi of the Law Administration in the Ministry's Directorate of Resource Management stated that the Act was slated to enter into force in late 2008.¹⁸⁴ Though this still has not yet come to pass as of the date of this writing in May 2009, its implementation is a major national development goal.¹⁸⁵

Where the Water Act of 1956 fails to address Namibia's ecology because it was based on allocation principles used in well-watered countries on a distant continent and was born of a repugnant political regime, the Water Resources Management Act was developed after a long process of evaluation of Namibia's resources and its goals.¹⁸⁶ The WRMA was designed to comport with the Namibian Constitution, and to replace the opaque, ad hoc approach of the Water Act with a more transparent, fair, and environmentally sound process intended to benefit all stakeholders.

The WRMA corrects the private ownership problem by declaring that "ownership of water resources in Namibia below and above the surface of the land belongs to the State" and commits the Government to "ensur[ing] that water resources are managed and used to the benefit of all people in furtherance of" responsible management practices and following the 14 progressive principles meant to guide the Act's enforcement.¹⁸⁷ These guidelines eliminate the confusion caused by the Water Act's vesting of private rights in some people under some circumstances and ensure compliance with Article 100 of the Constitution which declares that the State owns Namibia's natural resources.¹⁸⁸

178. *See id.* at r. 14.

179. Ministry of Agriculture, Water & Forestry, E-Services, <http://www.mawf.gov.na/Programmes/waterprogrammes.html> (last visited Nov. 10, 2008).

180. Dep't of Water Affairs, Application for a Permit for Borehole/Well/Spring in a Subterranean Water Control Area or a Public Spring, Form No. WA-001, *available at* <http://www.mawf.gov.na/Programmes/Eservices/Form%20WATER-001.pdf> (last visited Nov. 10, 2008).

181. *Id.*

182. *See* Water Resources Management Act, No. 24 of 2004.

183. *Id.* at § 138.

184. Telephone Interview by Stanford Law School student Bola Olupona with Mr. F. Witbooi, Law Administration, Ministry of Agriculture, Water & Forestry, in Windhoek, Namibia (Apr. 15, 2008).

185. *See supra* note 118. The current National Development Plan, updated in September 2008, lists the WRMA's passage and publication as a major achievement of the past five years, and its full implementation as a major target goal of the next five. REPUBLIC OF NAMIBIA, THIRD NATIONAL DEVELOPMENT PLAN, *supra* note 2, at 125, 126-27.

186. The comprehensive and oft-cited National Water Policy White Paper sought to ascertain the state of Namibia's natural and social realities to identify goals for future policy. It was an early step in the "dialogue and consultation [] expected to lead to the process of enacting a new Water Bill to replace the outdated Water Act 54 of 1956." NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 3.

187. Water Resources Management Act, No. 24 of 2004, § 4.

188. THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 100.

The principles are derived from those discussed in the National Water Policy White Paper in 2000.¹⁸⁹ They include “equitable access to water resources by every citizen, in support of a healthy and productive life,” “harmonisation of human needs with environmental ecosystems and the species that depend upon them, while recognising that those ecosystems must be protected to the maximum extent,” “openness and transparency” in management, “recognition of the economic value of water resources,” and “prevention of water pollution” incumbent with the “polluter’s duty of care and liability to make good.”¹⁹⁰

Most significantly, the Act also recognizes the “essentiality of water in life, and safe drinking water a basic human right,” and is explicitly designed to encourage resource management “to promote sustainable development.”¹⁹¹ The “essentiality” clause may well bring the right to access to water under the penumbra of Article 6’s guarantee of the right to life. This would mean that Article 25, governing the enforcement of fundamental human rights, could perhaps be used to prevent misuse or overuse of water resources that would deprive downstream users of their right to access to water. Similarly, the promotion of sustainable development, coupled with the WRMA’s “harmonization” clause recognizing the intrinsic worth of the “environmental ecosystems and the species that depend upon them,” ensures that policymakers will consider the natural environment and wildlife as independent stakeholders in the setting and enforcement of the nation’s water policy, and that they will favor long-term planning over short-term financial windfall. This is a change leaders have argued in favor of for years.¹⁹²

Section 7 commands the Minister to establish a Water Resources Management Agency tasked with technical analysis, collection and dissemination of data, and oversight of the Act’s implementation on the national, regional, and local levels.¹⁹³ Section 11 establishes the Water Advisory Council, which is composed of a member from each regional management committee as well as other community organizations interested in water policy.¹⁹⁴ The Water Advisory Council is tasked with advising the Minister on any relevant issues related to “water policy development or review, water resources management, water abstraction and use and any other matters relating to water.”¹⁹⁵ These two entities are intended to ensure that the ad hoc approach and patchwork enforcement of the Water Act of 1956 is replaced by a streamlined and cohesive national policy and approach that takes into consideration the views of all interested stakeholders.

Unlike the Water Act, the Water Resources Management Act outlines in the statutory text the information that must be included in an application for a water abstraction license and the steps that companies seeking such licenses must follow in order to qualify. Once in force, the WRMA will repeal and replace the entirety of the Water Act and its many successive amendments.¹⁹⁶

The WRMA sets forth specific actions that companies must take before being considered for an abstraction license. Under Section 33(2), an applicant, in order to inform “interested persons” of its proposal, must issue a notice describing its intentions in the *Gazette* at least 60 days before submitting an application to the Minister.¹⁹⁷ This notification requirement is more stringent than the current Regulation requires. The notice must invite all interested persons to submit objections in writing and the Act creates an “objection period” during which interested persons can lodge objections.¹⁹⁸ This provision expands the concept of standing to include all interested persons. To demonstrate its commitment to transparency, the applicant, when submitting an application, must include proof of publication of the notification and any objections. By mandating reasonable notification and participation for all stakeholders, the WRMA solves a major part of the Water Act’s opacity problem, and brings the permit process in line with the procedural safeguards of administrative justice set forth in the Constitution.

Section 33(2) also requires that applicants submit a prescribed fee and a comprehensive environmental impact analysis.¹⁹⁹ Currently, there is no requirement for an environmental impact analysis for a water abstraction permit in

189. Compare NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 21-31 with Water Resources Management Act, No. 24 of 2004, § 3.

190. Water Resources Management Act, No. 24 of 2004, §§ 4 (a), (d), (f), (h), & (l).

191. *Id.* at §§ 4 (c) & (g).

192. See *supra* note 112 & accompanying discussion.

193. Water Resources Management Act, No. 24 of 2004, § 7.

194. *Id.* at § 11.

195. *Id.* at § 11(3)(a).

196. See *id.* at § 137.

197. *Id.* at §33(2). The Management Act does not define “interested persons,” but as a whole seems to take a broad view of who is a stakeholder and thus needs to be consulted.

198. *Id.*

199. *Id.* Additionally, Section 33(1) of the Management Act, No. 24 of 2004 requires that applicants submit a list of information,

Regulation 1278 or the Water Act. This, too, represents a more logical approach toward the competent regulation of water reserves and the administration of water permits.

According to a Government report, under the system now, “[t]he collection of fees for the issuing of water permits is divorced from the Law Administration Division, which issues the permits,” and “lead[s] to a general non-payment for permits.”²⁰⁰ This situation in turn directly cuts into the Ministry’s ability to administer the law effectively. The report concludes that “where the fees are non-existent or their collection is divorced from the division providing the service, the incentives for revenue collection are reduced, and the potential for improved financing of Government services is lost.”²⁰¹ Because money within an organization is fungible, even if the application and permit fees cover only the work that the Ministry must undertake during the review and issuance process, there will be a boost to transparent water management as these fees replace funds which can be used in other areas where they are needed. These new monies might help fund the new basin management committees established by the Act provided that they are set at a level adequate to provide such action.

Sections 34 and 35 of the WRMA delineate the process the Minister must follow in considering whether to grant a permit.²⁰² Section 34 requires that the Minister refer the application to the relevant local management committee “for investigation and recommendations,” or, if none yet exists, undertake the required review at the national level.²⁰³ This process includes a thorough investigation of all aspects of the application, a consideration of any objections to the application, and an opportunity for the applicant to rebut the objections.²⁰⁴ From there, the Minister will examine the review committee’s recommendations, and apparently will conduct a *de novo* consideration of the objections to the proposal as well as any rebuttals.²⁰⁵ The Minister must then consider the applicant’s environmental impact analysis, whether the proposed license comports with the Act’s guiding principles, and if the abstraction will truly be sustainable based on available information.²⁰⁶ Only if the Minister is satisfied that the project should go forward, may he then choose to grant the application.

Section 35 sets forth the final compliance requirements and requires the Minister to consider “the safe yield of the aquifer from which the abstraction is proposed,” “the likely effect of the proposed abstraction on the quality of any water resource, and on aquatic ecosystems dependent on the resource,” and “the impact of the proposed abstraction upon existing water users, water resources and the water reserved or allocated for environmental uses.”²⁰⁷ Finally, Section 35 demands that the Minister consider the project in light of the rights of any affected traditional community, the manner in which the project might affect their customary rights and practices, and “the need to redress the effects of past racial and gender discrimination.”²⁰⁸

Finally, offenses under the WRMA carry maximum penalties of fines ranging from N\$2,000 to N\$20,000 and/or six months to five years imprisonment for a first offense, and fines of N\$40,000 and/or imprisonment for up to ten years for a subsequent offense.²⁰⁹ This dramatic increase in the penalties for violators will create a much stronger deterrent than the Water Act currently does.

The WRMA appears to provide solutions to many of the problems of water management that have concerned policymakers since Independence. From a technical perspective, it commands the collection of data and the use of scientific expertise in understanding the capacities and vulnerabilities of national water resources. From a social

including,

- (a) the name of the applicant; (b) the water resource from which the proposed abstraction will be made (c) the proposed location of the abstraction; (d) the type and location of the proposed beneficial use; (e) the names of owner and occupier of the land upon which the proposed beneficial use will be made; (f) the proposed rate and volume of the abstraction; (g) the proposed timing of the abstraction; (h) a description of any waterworks necessary to accomplish the proposed abstraction and put the abstracted water to beneficial use and a proposed schedule for the completion of such waterworks; (i) a description of the proposed treatment that will be given to the abstracted water, including any chemicals proposed to be applied to the water; (j) a description of the volume, rate and chemical composition of any effluent or return flow resulting from application of the abstracted water to beneficial use and a description of the location that any such effluent or return flow is expected to enter a water resource; and (k) any additional information the Minister may prescribe. *Id.*

200. SOCIO-ECONOMIC AND FINANCIAL ISSUES: THEME REPORT, *supra* note 9, at 70.

201. *Id.*

202. Water Resources Management Act, No. 24 of 2004, at §§ 34, 35.

203. *Id.* at § 34.

204. *See id.* at § 34(2).

205. *See id.* at § 34(3).

206. *See id.* at § 34(3).

207. *Id.* at § 35(1)(c), (b), & (f).

208. *Id.* at § 35 (1)(h) & (e).

209. *See id.* at § 132.

perspective, it brings all stakeholders to the table and gives them a voice, and includes the natural environment as a legitimate stakeholder. Its enforcement mechanisms are strong, and the mandatory “must” and “shall” language commits the Minister and the constituent management bodies to following the Act’s guiding principles. All of these guarantees ensures that mining operations will have to practice sound corporate citizenship and that their abstraction must fit within the national goals and long-term objectives of Namibia.

C. OTHER NAMIBIAN STATUTES THAT AFFECT WATER RESOURCE MANAGEMENT

In addition to the laws and regulations described above governing the abstraction of groundwater for mining, there are a number of other laws that may also bear on such activities. Because the Minister currently has such broad discretion to set the parameters of decision-making pursuant to Section 12 of Regulation 1278,²¹⁰ and because a permit may be issued under the WRMA only after a broad range of social, economic, and ecological variables are considered,²¹¹ it is important to understand how these could affect water management in Namibia.

1. Environmental Management Act, No. 7 of 2007

The Environmental Management Act (“EMA”), like the Water Resources Management Act, has a very wide scope, but is also stuck in limbo, not yet in force despite its passage in December 2007.²¹² In relevant part, all Government agencies are required to submit an environmental plan so that the new Environmental Commissioner and the Sustainable Development Advisory Council created by the Environmental Management Act can ensure that the Government works with a unity of purpose in ensuring sustainable resource management.²¹³ Beyond this, it commands developers to gain clearance from the newly created Environmental Commissioner before proceeding with plans.²¹⁴

Though the EMA leaves the list of activities needing environmental clearance up to the Minister of Environment and Tourism’s discretion, it lists “water use and disposal” as an area which the Minister must regulate.²¹⁵ Furthermore, one scholarly analysis of the EMA undertaken while the Act was still in draft form, concluded that the Act “essentially requires that all ecosystems be provided with sufficient water to meet their ecological requirements or that adequate environmental flows are available to sustain water dependent ecosystems.”²¹⁶ To obtain groundwater abstraction permits that comply with the purposes and mandates of the EMA, a mining company will have to undergo a rigorous clearance process in addition to fulfilling the requirements of the WRMA. The clearance process under the EMA also involves extensive consultation with parties, intensive data collection, and may include public hearings with adequate notice provided two weeks before the scheduled date.²¹⁷

Criminal penalties for violating the conditions of a granted environmental clearance are stiff: a maximum fine of up to N\$500,000 and/or a twenty years imprisonment.²¹⁸ So seriously does the Act take the certification process, the submission of false information, the failure to provide relevant information, or the alteration or forgery of any document related to the process, that a penalty of up to N\$100,000 and/or ten years imprisonment for a first offense, and a penalty of up to N\$10,000 and/or one year imprisonment for each day the violating conduct continues may be imposed.²¹⁹ The severity of these sanctions demonstrates the seriousness with which the drafters approached this legislation and its goals of sustainable national development. While the date of commencement for the Water Resources Management Act remains uncertain, the implementation of the Environmental Management Act appears to be close at hand.²²⁰

210. R. 1278, at r. 12.

211. Water Resources Management Act, No. 24 of 2004, § 35.

212. Environmental Management Act, No. 7 of 2007.

213. *See id.* at §§ 23-26.

214. *See id.* at § 32.

215. *See id.* at § 27.

216. Shirley Bethune et al., *supra* note 1, at 897.

217. Environmental Management Act, No. 7 of 2007, §§ 32-36.

218. *See id.* at § 37(3).

219. *See id.* at § 43.

220. *See* Brigitte Weidlich, *Enviro Law to be Enforced Soon*, THE NAMIBIAN, July 10, 2008, available at <http://www.namibian.com.na/2008/July/national/08147D60C4.html> (“Once gazetted in the next few weeks, the new act and its regulations can be implemented.”).

2. Minerals Act, No. 33 of 1992

The Minerals Act governs the process by which the Minister of Mines and Energy may grant permits for mineral exploration and mining throughout Namibia. Though that is the major focus of the Act, there are several provisions in the Act relevant to groundwater abstraction. First, after exploration has been completed and an enterprise wishes to commence mining operations, it must apply for, and receive, a mining license.²²¹ In considering whether to grant a mining license, the Minister “shall not grant an application by any person for a mining license” unless the Minister is “on reasonable grounds satisfied” that the operation will ensure “adequate protection of the environment.”²²² Furthermore, should a license holder seek “to obtain a supply of water or any other substance in connection with such [mining] operations,” the license holder must apply for special permission to do so from the Minister.²²³

Any applicant for a permit must list the likely environmental impacts of the project as well as the measures by which the applicant intends to mitigate damage to the environment occurring during the operation, and restore the environment after the operation’s completion.²²⁴ If, after the operation is through, the Minister finds that the license holder caused environmental destruction, the Minister may require the holder to remedy that damage. Failure to do so can result in a maximum fine of N\$100,000 and/or imprisonment for a period of up to five years.²²⁵

While the Minerals Act provides for some protection for groundwater resources, its primary focus is naturally on mineral extraction. Given the 1956 Water Act’s jumbled regulatory structure and enforcement, the Minerals Act provides the Ministry of Mines and Energy with another avenue for stakeholders to prevent unauthorized or unsustainable abstraction before a mine is opened, and if such misconduct occurs, seek relief. Still, because the water-related mandates are general, and since the focus of the Act is elsewhere, the Ministry of Mines and Energy may in practice rely on the determinations of the Ministry of Agriculture, Water and Forestry on water issues.

3. Namibia Water Corporation Act, No. 12 of 1997

The Namibian Water Corporation Act establishes NamWater as a parastatal corporation, fully owned by the Government, and responsible for the distribution of large water supplies to customers throughout the country.²²⁶ Section 1 of the Act establishes that the Corporation’s principal duty is to “consider each application for bulk water supply by any potential customer”, and so long as water “of the required quantity and quality”, is available, “accept the applicant as a customer.”²²⁷ A Government report aptly noted that the language of the Act does not guarantee the provision of water to any customer, rather it “implies that if poor quality water is available, the corporation can reject an application.”²²⁸

The Act imposes on the Corporation a “[d]uty to conserve and protect water resources” by using available resources “on a long-term sustainable basis” and “tak[ing] appropriate steps [. . .] to ensure that those water resources are protected from pollution caused by its operations.”²²⁹ Furthermore, a “[d]uty to conserve and protect the environment” is mandated;²³⁰ the Corporation must “take appropriate steps to conserve and protect the environment from damage, destruction or degradation.”²³¹

Section 13 of the Act imposes a recordkeeping and information sharing duty on the Corporation. Because it is owned by the Government, the Corporation must collect and share with the Ministry of Agriculture, Water and Forestry its data on rainfall, river flows, groundwater, water abstraction, and the quality of water.²³² It is also required to share these records with the public at its office “during normal working hours” and to instruct the public on how to obtain copies of the records.²³³

This Act is relevant to the mining question only insofar as mining companies apply to NamWater as customers for bulk water supply. It seems, however, that the Act is focused on supplying water to the cities, towns, and other

221. See Minerals Act, No. 33 of 1992 (*comm.* Apr. 1, 1994), §§ 91-93.

222. See *id.* at § 92(2).

223. See *id.* at § 109(1).

224. See WATER USE AND CONSERVATION: THEME REPORT, *supra* note 149, at 55. See Minerals Act, No. 33 of 1992, § 91.

225. See WATER USE AND CONSERVATION: THEME REPORT, *supra* note 149, at 55. See Minerals Act, No. 33 of 1992, § 128.

226. See WATER USE AND CONSERVATION: THEME REPORT, *supra* note 149, at 53 (“The State is the only shareholder and owns all the shares issued by the Corporation.”).

227. Namibia Water Corporation Act, No. 12 of 1997 (*comm.* Nov. 20, 1997), § 1.0.

228. WATER USE AND CONSERVATION: THEME REPORT, *supra* note 149, at 53.

229. Namibia Water Corporation Act, No. 12 of 1997, § 11.

230. *Id.* at § 12.

231. *Id.*

232. *Id.* at § 13.

233. *Id.*

communities within Namibia.²³⁴ Indirectly, though, the Act reflects the Government's understanding of present day water resource issues in Namibia. Because NamWater is Government-chartered, its founding tenets reflect the beliefs of policymakers and their understanding of what constitutes a fair and sustainable water policy. The Act indicates that the Government values conservation, protection of the environment, active data collection, and transparent data sharing. These requirements serve the norms of accountability and sustainable management that the 1956 Water Act plainly does not consider. Because Parliament expressed its preferences for the values of sustainability and transparency in the Namibia Water Corporation Act, courts and administrative agencies will likely rely on such statements in guiding their understanding of the WRMA's requirements.

4. Traditional Authorities Act, No. 25 of 2000

The Traditional Authorities Act establishes the nation's Traditional Authorities as local governing bodies and permits each Traditional Authority to constitute itself and administer its affairs in the ways that it has customarily done.²³⁵ The WRMA requires that the Ministry of Agriculture, Water and Forestry consider "the existence of any traditional community and the extent of customary rights and practices in, or dependent upon, the water resource to which an application for the licence relates" before deciding to grant or deny a permit for water abstraction.²³⁶ Furthermore, as an interested party to any water abstraction activities proposed for its land, a Traditional Authority must be consulted and can object to adverse proposals under the Water Resource Management Act.²³⁷

No such duties are imposed under the 1956 Water Act. Though Traditional Authorities and the lands they govern may be affected by uranium speculation and mining operations, the current laws do not require active consultation or agreements that would respect the customary rights and traditions of the communities affected. Despite that absence of front-end participation, an examination of the Traditional Authorities Act reveals that it may impose limitations on abstraction and related activities.

Section 2 establishes that the Traditional Authority shall "have jurisdiction over the members of the traditional community in respect of which it has been established."²³⁸ Section 3 imposes a duty on each Traditional Authority member "to assist and cooperate with the Government, regional councils and local authority councils in the execution of their policies and keep the members of the traditional community informed of development projects in their area."²³⁹ It also mandates that each member of a Traditional Authority must act "to ensure that the members of his or her traditional community use the natural resources at their disposal on a sustainable basis and in a manner that conserves the environment and maintains the ecosystems for the benefit of all persons in Namibia."²⁴⁰

The Act limits the exercise of the rights of a Traditional Authority such that "any custom, tradition, practice, or usage which is discriminatory or which detracts from or violates the rights of any person as guaranteed by the Namibian Constitution or any other statutory law, or which prejudices the national interest, shall cease to apply."²⁴¹ Finally, Section 16 mandates that the Traditional Authority, through its exercise of its customary law, "give support to the policies of the Government, regional councils, and local authority councils, and refrain from any act which undermines the authority of those institutions."²⁴²

On its face, the Traditional Authorities Act seems fairly straightforward. The Government intended to ensure that the Constitution's guarantees of freedom and equality apply throughout Namibia, and wanted to ensure that customary law did not subvert those rights. In keeping with this objective, the Namibian Government wanted to establish the supremacy of the laws and prerogatives of the National Government and its constituent parts. However, the intentions could easily become self-defeating under the current water regime. Suppose for example that a prospecting company comes to the National Government and applies for a permit for groundwater abstraction on land controlled by a Traditional Authority, and the Government, as is permissible under the current water management regime, does not consult with the Traditional Authority before granting that permit. If the project, such as would

234. WATER USE AND CONSERVATION: THEME REPORT, *supra* note 149, at 56 (discussing interactions with local authorities on management of sewage, subsidisation of water resources for Windhoek versus coastal towns and so forth).

235. Traditional Authorities Act, No. 25 of 2000 (*comm.* May 17, 2001).

236. Water Resources Management Act, No. 24 of 2004, § 35(1)(h).

237. *See id.* at § 34.

238. Traditional Authorities Act, No. 25 of 2000, § 2.

239. *Id.* at § 3(2)(b).

240. *Id.* at § 3(2)(c).

241. *Id.* at § 14(a).

242. *Id.* at § 16.

occur in the case of a mine, creates jobs in the area, then it is likely that members of the Traditional Authority would be employed by the project or otherwise become associated with it. This would not create a problem unless the water abstraction authorized by the permit is destructive of the environment of the region or if the abstraction otherwise abuses other natural resources. In that case, the Act imposes on each member of the Traditional Authority a duty to ensure that members of the authority use the natural resources in a sustainable manner, as well as a duty to support the policies of the National Government. For a member of a Traditional Authority who is also an employee of a water-wasting mine, this creates an impossible bind: one cannot support the exercise of the Government-issued permits that enable over-abstraction and at the same time ensure the sustainable use of natural resources.

At this point, the Traditional Authorities Act would then command that the members resign from their employment to avoid participation in resource misuse. In fact, it is likely that members of the Traditional Authority would have been precluded from taking mining jobs in the first place if the abstraction will be detrimental to the environment. Because the job would involve a member of the Traditional Authority participating in the unsustainable use of natural resources within the jurisdiction of the Traditional Authority, the leaders would have had to preclude the member from taking the position.

This runs afoul of Article 10 of the Constitution, which holds that “[a]ll persons shall be equal before the law,” and further establishes that “[n]o persons may be discriminated against on the grounds of sex, race, colour, ethnic origin, religion, creed or social or economic status.”²⁴³ The duty established by the Traditional Authority would then result in invidious discrimination on the basis of ethnic origin and social status. By definition, the mining company’s employment of a non-member residing in the area would not violate the Act. In a literal sense, then, if not probably in a practical sense,²⁴⁴ legal liability is created for the Traditional Authority that is not created for any other resident of the area, and hence a violation of Article 10 occurs. Even if there never were a member so employed, the mere presence of the unsustainable abstraction on Traditional Authority land would itself be a violation of the Act.²⁴⁵

This scenario is very plausible under the 1956 Water Act, and though it is possible for it to occur under the Water Resources Management Act, under the WRMA the problem would be addressed, solved, or avoided after mandatory consultation with the Traditional Authority as a stakeholder and the consideration of the rights, traditions, and practices of the authority as well as the requirements of its customary law. In any event, because Traditional Authorities are a major stakeholder in the management of a scarce water resource, genuine, transparent consultation with Traditional Authorities, even if the current Water Act does not require it, should be, in practice, mandatory. Traditional Authorities are at present demanding participation in the process in order to balance economic development with sustainable resource management.²⁴⁶ Even if the social and environmental justice issues inherent in granting a permit without consultation with Traditional Authorities are not seen as persuasive, refusing to consult would result in gross economic inefficiencies when the project becomes tied up in protracted litigation surrounding the permits, the Traditional Authorities Act, and the equality and anti-discrimination guarantees of Article 10 of the Constitution.

243. THE CONSTITUTION OF THE REPUBLIC OF NAMIBIA, art. 10.

244. It seems rather unlikely that the Government would pursue punitive action against a Traditional Authority for failure to prevent use of a permit that the Government itself had issued.

245. This is because leaders and members of the traditional authority have jurisdiction and authority over the lands, and are bound to both sustainably manage resources and follow government policies. The only way it would not be if it were demonstrated that allowing the over-abstraction of water is necessary to respect the “culture, customs and language” of a person residing within the land, but not a member, of the traditional authority. *See* Traditional Authorities Act, No. 25 of 2000, § 2(e). Given the commitments to sustainable development throughout Namibian law and policy, it seems very doubtful that over-abstraction could be recognized as such. In any event, this would not resolve the Article 10 question, but shift its focus, because with competing cultural values, the government would inevitably practice the sort of invidious discrimination contemplated here however it chose to act.

246. *See* Irene !hoaes, *Namibia: Mining Activities Worry Topnaar Chief*, ALLAFRICA.COM, Oct. 13, 2008, available at <http://allafrica.com/stories/200810130408.html> (discussing efforts by leaders of the Topnaar community to be involved in issuing prospecting licenses).

Current Water Law in Practice: The Forsys Experience

Though there are many multinational companies prospecting for uranium and attempting to develop mines in the arid western parts of Namibia,²⁴⁷ one project that has received a significant amount of attention is the Valencia Mine operated by the Forsys Metals Corporation (Forsys). This case is a particularly instructive example of how the deficiencies present in the current water management policy are manifested on the ground. An examination of the permitting process, corporate actions, and the manner in which policymakers and the courts have dealt with challenges reveals an irregular process with little formal structure and almost no transparency or genuine consultation. The following section recounts how Forsys began mining in Namibia and the extent of its operations, examines the process Forsys used to obtain its water licenses for the Valencia Mine, and describes the lessons learned from the Valencia Mine case which may be used to help strengthen the process in order to create a more transparent and sustainable system.

A. THE VALENCIA URANIUM MINE

Forsys is a Canadian-based mining speculation company that is publicly traded on the Toronto Stock Exchange and is seeking to develop gold, uranium, and copper mining projects in Namibia.²⁴⁸ Forsys's interest seems limited to project development and permit bundling; financial analysts had widely believed that the company had been trying to position itself as an "attractive takeover target for a uranium miner, a utility company, or a nuclear power plant manufacturer."²⁴⁹ Indeed, on October 14, 2008, Forsys announced that it was entering exclusive negotiations to sell the company, shortly after securing a long-term mining license.²⁵⁰ The company was successfully sold to George Forrest International Afrique, a multinational conglomerate that dates back to 1922, in a deal that, as of print time, is scheduled to close "not later than July 31, 2009."²⁵¹ Forsys was first incorporated on May 13, 2005 as Golden Age Resources, Inc., and after changing its name to Forsys Metals on June 29, 2005, it sought to purchase Namibian Metals Ltd. and Tsumeb Exploration Company Ltd.,²⁵² two companies that had been involved in the initial development of the Valencia Mine. Through other deals, Forsys also acquired licenses and companies with significant interests in gold, copper, and diamond mines throughout Namibia and the British Virgin Islands.²⁵³ The proposed

247. See Brigitte Weidlich, *African Civil Society Hits Back at Uranium Mining*, *supra* note 17 (discussing ongoing prospecting operations by twenty mining companies in the Namib-Naukluft Park alone).

248. See Forsys Home Page, "Welcome to Forsys Metal Corp.," <http://www.forsysmetals.com>.

249. See Salman Partners, Research, Forsys Metals Corp. (Mar. 12, 2008), in *Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at Annexure 113.

250. See Press Release, Forsys Metals Corp., Forsys in Exclusive Negotiations Regarding Potential Sale of Company (Oct. 14, 2008), available at <http://www.forsysmetals.com/news/Oct142008.pdf>; Brigitte Weidlich, *Government Grants 25-Year Uranium Licence to Canada's Forsys*, THE NAMIBIAN, Aug. 27, 2008, available at <http://www.namibian.com.na/2008/August/marketplace/08235D1971.html> ("[The mining license] would be valid for 25 years, Canadian company Forsys Metals Corporation announced, as a dozen more uranium companies are queuing up at the Ministry's doors, eager to get a finger in the uranium yellow cake.").

251. See Nai-em Dollie, *Forsys Strikes Mega Deal With Forrest*, THE NAMIBIAN, Nov. 20, 2008, available at <http://www.namibian.com.na/2008/November/marketplace/083D95FEB3.html>; Press Release, Forsys Metals Corp., George Forrest International Afrique S.P.R.L. to Acquire Forsys Metals Corp in Cash Transaction Valued at Approximately CAD\$579 Million (Nov. 14, 2008), available at <http://www.forsysmetals.com/news/GFI%20Takeover%20NR-FINAL.pdf>; See Press Release, Forsys Metals Corp., Forsys Signs Second Agreement with GFI (Apr. 2, 2009), available at http://www.forsysmetals.com/News_2009/FSY%20Press%20Release%20Signing%20of%20Second%20Amendment%20Agreement.pdf

252. See Salman Partners, Research, Forsys Metals Corp. (Mar. 12, 2008), in *Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at Annexure 113.

253. *Id.* at Annexure 114. According to a financial analyst's report, Forsys owns 100% of Mega Diamond (BVI), which is a diamond concern, and 100% of Westport Resources Namibia (Pty) Ltd., which is involved in gold, zinc, and copper mining. *Id.* Forsys has apparently also acquired Dunefield Mining Company, "which holds an exclusive prospecting licence over farm Namibplaas," situated immediately adjacent to the Valencia Farm. See Werner Menges, *Valencia Uranium Clashes in Court*, THE NAMIBIAN, Nov. 17, 2008, available at <http://www.namibian.com.na/2008/November/national/083C9A01EA.html> or <http://allafrica.com/stories/200811170601.html>.

Valencia Mine is located on a farm owned by J.F. Horn that is situated between the towns of Arandis and Usakos in the Erongo region of Namibia, which is known as “one of the most prolific uranium districts in the world.”²⁵⁴ It was in Usakos that Namibia’s most prominent mining operation, Rossing Uranium Mine, first commenced operations over thirty years ago.²⁵⁵

As the general background section indicates, Namibia is very sparsely populated and the region where the Valencia Mine is located is no different. Nevertheless, the Erongo region is still home to 110,000 people, and the Valencia Farm, upon which the Valencia Mine is located, is bounded on the west and northwest by State-owned “un-subdivided communal land” on which rural communities engage in “small-scale livestock farming, small-scale mining and trading of semi-precious stones, as well as community based tourism initiatives.”²⁵⁶ Several working farms that rely on the area’s very limited water resources to function are situated adjacent to the Valencia Farm.²⁵⁷ These farms include the Namibplaas, Bloemhof, Vergenoeg, and Namib Plains farms.²⁵⁸ Independent analysis of the Valencia project has revealed that “[t]he Valencia project area is in one of the driest regions in the world, with annual precipitation of between 14 mm and 150 mm.”²⁵⁹ This places the area in the driest 20% of Namibia.²⁶⁰

Forsys first announced its intentions to develop a mine to the local population during a meeting with farmers on April 23, 2007.²⁶¹ During that meeting, Forsys representatives assured farmers that no water would be taken from the ground as part of the company’s mining speculation work and that the company would meet all of its water needs through a desalination plant that it would construct.²⁶² Just one month later, in May 2007, Forsys received a permit to abstract 50 million cubic meters of seawater over a five-year period and pump it to a desalination plant on the coast and then onto the Valencia site, a little more than 175 kilometers inland.²⁶³ In addition to the expense of the desalination plant itself, the cost of a pipeline to transport the water is estimated at N\$1,000,000 per kilometer.²⁶⁴ At the time of this report, the desalination plant Forsys had planned to use has not yet been completed, and similar plants are only now on the drawing board.²⁶⁵

It was not until nearly a year after its first meeting that the local population heard again from Forsys about their intentions regarding the Valencia Mine. A meeting between Forsys representatives and farmers from the mining area was held on February 12, 2008, in Swakopmund.²⁶⁶ The meeting was arranged by the environmental manager of the Valencia Mine, and was intended to be a forum to inform local residents of a change in Forsys’s water use plans.²⁶⁷ At the meeting, the farmers “raised concerns about the quantity of the water” that would be needed by the company, and attempted to ascertain whether Forsys intended to abstract any of the groundwater that they relied upon for their farming.²⁶⁸ It was only then that Bruce Hall, the communications director from Forsys, notified the farmers—for the first time—that the company had applied for a water abstraction permit allowing for the extraction of 500 cubic meters per day.²⁶⁹

254. See Salman Partners, Research, Forsys Metals Corp. (Mar. 12, 2008), in *Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at Annexure 112.

255. See Rossing Home Page, “Rossing Uranium Mine – Home Page of Namibia’s Rossing Mine,” <http://www.rossing.com>.

256. Tony Barbour and Hugo van Zyl, *Appendix J: Social and Economic Impact Assessment Draft Report: Valencia Uranium Mine Namibia*, in ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN FOR THE VALENCIA URANIUM PROJECT 7-8 (Nov. 2007).

257. See *id.* The litigation that brought this to the public eye was brought by the owners of a farm who rely on the fragile water supply to make use of the farm and to operate an ecotourism business onsite. See *Namib Plains Farming and Tourism CC v. Valencia Uranium (Pty) Ltd., et al.*, Founding Affidavit, (P)A 78/08, ¶¶ 3-4 (Apr. 4, 2008).

258. See Tony Barbour and Hugo van Zyl, *supra* note 256, at 8; *Namib Plains Farming and Tourism CC v. Valencia Uranium (Pty) Ltd., et al.*, Founding Affidavit, (P)A 78/08, ¶ 2 (Apr. 4, 2008).

259. See Salman Partners, Research, Forsys Metals Corp. (Mar. 12, 2008), in *Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at Annexure 117.

260. See *supra* note 16 & accompanying discussion.

261. *Namib Plains Farming and Tourism CC v. Valencia Uranium (Pty) Ltd., et al.*, Founding Affidavit, (P)A 78/08, ¶ 16 (Apr. 4, 2008).

262. *Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at ¶ 16.

263. Salman Partners, Research, Forsys Metals Corp. (Mar. 12, 2008), in *Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at Annexure 117.

264. Otto Jansen Van Vuuren, Confirmatory Affidavit, *Namib Plains Farming and Tourism CC v. Valencia Uranium (Pty) Ltd., et al.*, Founding Affidavit, (P)A 78/08, at Annexure 151.

265. See Brigitte Weidlich, *Task Team Set up on Desalination*, THE NAMIBIAN, Nov. 14, 2008, available at <http://www.namibian.com.na/2008/November/national/083BB1E367.html>.

266. *Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at ¶ 20.

267. See *id.* at ¶ 22.

268. *Id.*

269. See *id.*

B. VALENCIA'S WATER PERMITS

On the same day that Forsys met with the farmers, the Ministry of Agriculture, Water, and Forestry issued the water abstraction permits.²⁷⁰ As the following analysis of the Valencia water permitting process shows, the lack of clarity regarding the limits of Valencia's water extraction resulted in the company's right to take unlimited amounts of water from the area.

First, the terms of the permits are inconsistent with the Ministry's own requirements regarding the sustainability of the water source. Although Forsys had originally requested a permit allowing the extraction of only 300 cubic meters per day, the Ministry of Agriculture, Water and Forestry granted four permits, numbered 10611-10614,²⁷¹ allowing the company to extract a total of 1000 cubic meters a day from two sources, the Khan River, an ephemeral river in the region, and the Palaeo Channel, an ancient underground reservoir about which little is known.²⁷² Permits 10612 and 10614 address drilling and abstraction on land above the Palaeo Channel; 10612 allows drilling, and 10614 allows for water abstraction.²⁷³ Condition 2 of permit 10612 states that "only once it is conclusively found that groundwater abstraction from this Paleochannel of the Khan River is feasible and sustainable, without any adverse affects to downstream users, may a separate application for groundwater abstraction be submitted for consideration by the Ministry."²⁷⁴ Because very little scientific data has been gathered about the two water sources, it is unclear exactly how much water exists in the area.²⁷⁵ Yet on the same day, the same Ministry granted permit 10614, which allowed water abstraction of up to 500 cubic meters per day from the boreholes discussed in permit 10612.²⁷⁶ It is unclear whether this was an oversight on the part of the Ministry. However, no evidence was ever presented establishing that Condition 2 of permit 10612—that groundwater abstraction is feasible and sustainable and without adverse affects—had been met.²⁷⁷

Second, the Ministry's issuance of the permits is troubling because the record shows that the Government did not provide affected stakeholders any opportunity for meaningful participation in the process. The announcement on February 12, 2008 that Forsys had decided to apply for permits "came as a surprise, and indeed a disappointment," but the farmers were not overly concerned at that point, because they "in any event expected [the Government] to ask for our views before a decision was made."²⁷⁸ However, the farmers found out via "an unconfirmed rumor" ten days later that a permit authorizing the abstraction of 500 cubic meters per day had been approved.²⁷⁹ Confirmation of the permits' issuance did not come until February 25, when one farmer found a press release that Forsys had prepared for its own website that announced the new permits.²⁸⁰

Furthermore, the permits issued by the Ministry of Agriculture, Water and Forestry were wrongly signed by the Permanent Secretary of the Ministry rather than by the Minister himself as required.²⁸¹ The regulatory framework explicitly calls for the Minister to issue the permits.²⁸² Though Regulation 1278 allows that the Minister "may by notice in the *Gazette* delegate to the Secretary or any other officer of the Department any power conferred upon

270. See Ministry of Agriculture, Water & Forestry, Permits No. 10611-14 (Feb. 12, 2008).

271. Permits 10613 and 10614 each allowed Forsys to extract 500 cubic meters of water per day, while permits 10611 and 10612 allowed unspecified abstraction in the drilling of boreholes. See Founding Affidavit, Annexure 62-81.

272. See *id.* at ¶ 23; Ministry of Agriculture, Water & Forestry, Permits No. 10611-14 (Feb. 12, 2008).

273. Ministry of Agriculture, Water & Forestry, Permits No. 10612, 10614 (Feb. 12, 2008).

274. Ministry of Agriculture, Water & Forestry, Permit No. 10612 (Feb. 12, 2008).

275. Indeed, in a more recent round of permit applications, analysts hired by Forsys acknowledged that their data is insufficient at the present time to construct a sound model demonstrating the volume of the water resource. See Ministry of Agriculture, Water & Forestry, Application for Authorization to Abstract Groundwater from the Khan River for the Construction Phase of the Proposed Valencia Uranium Mine, Application for Additional Drilling, at 29-33.

276. Ministry of Agriculture, Water & Forestry, Permit No. 10614 (Feb. 12, 2008).

277. The only statement that references the feasibility or sustainability of extraction from the paleochannel is the Forsys Environmental Impact Assessment's statement that "[d]uring the hydrocensus, it became evident [. . .] that a possible paleochannel exists." Water Sciences CC, *supra* note 89, at 33. The Palaeo Channel was first hypothesized in 2006 by Pierre Botha, a hydrogeologist under contract with Forsys. Botha attended the February meeting with local stakeholders, and discussed a report on the environmental impact of water abstraction in the Palaeo Channel and the Khan River. In his presentation, Botha did little to argue that the Forsys plans were ecologically sound, noting "the non-robustness of sustainable abstraction from the Khan River" and "the absence of any reliable data on what might be a sustainable extraction rate from the Palaeo Channel." *Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at ¶ 35.1.

278. *Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at ¶ 21.

279. *Id.* at ¶ 22.

280. *Id.* at ¶¶ 23-24.

281. Ministry of Agriculture, Water & Forestry, Permits No. 10611-14 (Feb. 12, 2008).

282. See R. 1278, at r. 5.

him by these regulations,”²⁸³ it does not appear that the Minister ever made such a formal, required delegation of authority. Moreover, even if the Minister had authorized the Permanent Secretary to sign the permits, they were in fact signed on the Secretary’s behalf by someone else entirely.²⁸⁴ This disorganization shows not only the lack of clarity in the process but also the severely limited opportunity for stakeholders such as the farmers to participate in any meaningful way. Even if they had known of the applications with sufficient time to comment, they would not have known whom to reach because the person who ultimately issued the permits had not received official authorization to do so.

In addition, the Ministry’s issuance of the permits was problematic because Forsys failed to comply with notification requirements.²⁸⁵ Although Forsys held meetings with local stakeholders, Regulation 1278 requires that companies seeking subterranean water abstraction permits make an announcement in the *Gazette* and a local newspaper describing the project and calling for complaints or objections to be made within fourteen days. Forsys did not make such an announcement.

The failure to comply with the notification requirements is also problematic because it did not enable the Director to gather sufficient information to make an “opinion [as to whether] artesian water is or will be found” at the proposed site.²⁸⁶ The rationale for the notification requirement is that the neighbors of a permit holder should have the right to reasonably object to a proposal that would render their boreholes less productive or would cause their wells to run dry. But another basis for the notice requirement is that it would help provide information on the potential sustainability of the water source: if the Ministry does not feel that there is at least some chance of hitting artesian water, then it seems unreasonable to think that there is a substantial, strong, sustainable resource below the surface. In short, either Forsys acted illegally by foregoing publication of its plans, or the company acted legally and was not required to publish notice, in which case the Ministry failed to follow established procedures by not requiring it to do so. Because water is a shared resource that is owned and managed by Namibia as a whole (except in the Section 30 circumstances of private ownership discussed above), and since publication is a small burden on the applicant compared to the potential harms unaware stakeholders may face, compliance with any requirements that applicants state their intentions and invite comments on their proposals is crucial.

C. FARMERS FILE A LAWSUIT AGAINST FORSYS TO ENJOIN WATER EXTRACTION

Upon learning that the abstraction permits had been granted, two affected farm owners wrote to Forsys asking the company to delay abstraction “until such time as its cumulative sustainability is demonstrated in a transparent and empirical manner.”²⁸⁷ The two farm owners also urged the Ministry and the Department of Water Affairs to withdraw or reduce the scope of the permit until genuine consultation had occurred and Forsys had submitted sufficient data to demonstrate the sustainability of its plan.²⁸⁸ When attempts at non-judicial resolution failed, the farm owners applied to the High Court for an emergency interdict to enjoin Forsys from commencing water abstraction and a declaratory judgment setting aside the permits as invalid.²⁸⁹ The petitioners relied on various provisions of the Constitution, the Water Act, and the Environmental Management Act.²⁹⁰

283. R. 1278, at r. 15. *See also* Water Act, No. 54 of 1956, § 156 (“The Minister may by notice in the *Gazette* delegate to the secretary or any other officer in the department any of the powers conferred upon him by this Act.”).

284. *See, e.g., Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at ¶ 25.3.6 (“[T]he permit No. 10613 is neither signed by the first respondent or the Permanent Secretary. On the face of the permit, it has been issue[d] by someone who is not authorized to do so by the relevant legislation.”).

285. *See* R. 1278, at r. 4(2) (requiring an applicant, when the Director “is of the opinion that artesian water is or will be found” there, to give notice in the *Gazette* and a local newspaper of its intentions to situate a borehole or a well in order to inform stakeholders of the parameters of the project and to instruct them to lodge complaints within two weeks).

286. R. 1278, at r. 14(2).

287. Letter from Maria Margaretha Engelbrecht & Ulla von Holtz, owners of Namib Plains Farming & Tourism CC, to Dr. Lima Maartens, Environmental Officer of Valencia Uranium Mine (Mar. 3, 2008), *in Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at Annexure 101.

288. Letter from Maria Margaretha Engelbrecht & Ulla von Holtz, owners of Namib Plains Farming & Tourism CC, to the Permanent Secretary, Ministry of Environment & Tourism, *in Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at Annexure 102-05.

289. *See Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at ¶ 10.

290. The petitioners relied on Articles 25, 95, 100, and 101 of the Constitution, Article 95, sections 27, 28, and 30 of the Water Act, the Water Act’s regulations, and the provisions of the Environmental Management Act. *See Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at ¶¶ 12, 13, 27, 29-31.

Despite the broad range of issues presented to the Court, Judge Collins Parker ruled on very narrow grounds in a decision that satisfied neither party. Though he had signaled to the participants that he intended to rule only on the points raised *in limine* (before trial)—jurisdiction, *locus standi*, and urgency—and then later hold a hearing on the merits of the application,²⁹¹ his ruling went beyond those parameters.

The Court invalidated the four permits. While Forsys may no longer abstract the water it was originally authorized to by the permits, the Court's ruling implies that the permits could be understood as formalities that operate as limiting, instead of enabling, devices. Such an interpretation would then free Forsys to abstract whatever amount it saw fit while it applied for new permits.

The Court appears to have based its decision on the farmers' contention that there was no formal declaration that the two affected areas had been designated subterranean water control areas by the President pursuant to Section 28 of the 1956 Water Act.²⁹² If there is no such designation, the permits could not be valid, because permits may only be issued under the Water Act when a formal designation has been made.

The principal problem with the decision is that the Court placed the burden of proving the subterranean water control area proclamation's existence on the farmers.²⁹³ Judge Parker ruled that without proof of proclamation, "if this Court determined the matter—even the points *in limine*—that would be tantamount to the Court perpetuating a legal lie."²⁹⁴ The decision continued,

As I say, as far as this Court is concerned, the legal reality is that the aforementioned Permits do not exist: it is as if they had not been issued at all. If that is the case, as I hold it is so established, then logically there is nothing in respect of which an application in the nature of the present application can be brought in this Court [. . .]. It follows inexorably that the present application stands to be dismissed.²⁹⁵

Based on his finding that the farm owners and not the mining company had the burden of producing the proclamation stating that the permitted area had been designated a subterranean water control area—Forsys, the permits' holder, and the Government, the permits' issuer—Parker compounded the farm owners' troubles by imposing the costs of all parties upon them.²⁹⁶

The placement of the burden on the party challenging issuance of the permits is defensible on only the most superficial grounds. According to the Court's reasoning, because such a designation is a *prima facie* element of establishing the "existence" of the challenged permit, the designation must be demonstrated by the party challenging the permit before the case can even begin. This reasoning misstates the burdens of the parties. For there to be a matter before the Court at all, there must have been a permit issued that is being challenged. For a permit to be issued, there had to be an application for that permit. For the application to have been considered, the Ministry would have had to determine that the application was necessary, relevant, and in the correct form. And for the application to have been submitted to the Ministry, the applicant would have had to make the identical determinations.

By filing the applications that resulted in the Government's issuance of permits 10611 through 10614, Forsys must have represented that the two identified areas fall within the purview of Sections 27, 28, and 30 of the Water Act, and the associated regulations. For the Ministry to have considered Forsys's applications, it too must have determined that the areas identified fell within its purview and authority. For a Ministry charged with the responsibility of regulating the use of very scarce resources, the determination of this basic threshold issue is of critical importance.²⁹⁷

Because of the cloudy process, the Government placed itself in the awkward position of issuing a permit for a "subterranean water control area," and then arguing against it on the ground that a private citizen could not produce evidence that the permit area was a control area. Plainly, the Ministry did not do the necessary diligence prior to issuing the Forsys permits. Before the permits were issued, then, there should have been ample evidence that the permits fell within a subterranean water control area.

291. See *Namib Plains v. Valencia (Pty) Ltd.*, Judgment, (P)A 78/08, at ¶ 6.

292. See Water Act, No. 54 of 1956, § 28; *Namib Plains v. Valencia (Pty) Ltd.*, Judgment, (P)A 78/08, at ¶ 14.

293. See *Namib Plains v. Valencia (Pty) Ltd.*, Judgment, (P)A 78/08, at ¶ 14.

294. *Namib Plains v. Valencia (Pty) Ltd.*, Judgment, (P)A 78/08, at ¶ 15.

295. *Id.*

296. See *id.* at ¶¶ 14, 16-17.

297. The idea that the Ministry works with fewer resources than it would prefer can be fairly offered by noting the challenges in implementing the more stringent Water Resource Management Act, 2004. See Telephone Interview by Bola Olupona with Mr. F. Witbooi, Law Administration, Ministry of Agriculture, Water & Forestry, in Windhoek, Namibia (Apr. 15, 2008).

In short, the burden of demonstrating whether the Valencia Mine location is or is not a “subterranean water control area” should have been placed on the permit applicant, Forsys, since it apparently had determined that a permit was necessary and submitted an application for one. Similarly, the burden also should have been placed on the Ministry to make a definitive statement regarding the nature of the area, since it was the entity that made the relevant determinations and issued the permits. If such a proclamation had been announced in the *Gazette*, it seems reasonable that one of these two parties would have examined the issue *ex ante* to produce the proclamation. It is clear from the Founding Affidavit that the farm owners operated under a similar assumption, treating the issue of the area’s categorization almost as an afterthought.²⁹⁸ Given the practical outcome of the High Court’s pronouncement—the invalidation of the existing permits—the Court’s taxing of the farm owners for costs seems particularly misguided.²⁹⁹ Imposing costs on the farmers who successfully challenged permits that were costs invalidated creates a disincentive to engage in the permitting process. If the costs award is allowed to stand, it would create a chilling precedent that could prevent citizens from attempting to vindicate their rights or seek redress against the Government or wealthy corporations in court. Such a result would be antithetical to the vision of Namibia’s leaders and citizenry of a nation dedicated to progressive values and sustainable development.

To attempt to achieve a more just result, in late 2008, the farm owners appealed the assessment of costs to the Supreme Court, asking the Court to set aside Judge Parker’s decision, hold that the farmers have standing (*locus standi*) to bring the action,³⁰⁰ overturn the order of costs, and instead tax the mining company with the cost of the original action as well as the appeal.³⁰¹ Because the issues dealt with by the High Court are largely procedural, the dispute remains hotly contested. In their papers, the farm owners referred to Forsys’s “cloak and dagger tactics,” and allege that the company is “[c]learly [. . .] blowing hot and cold.”³⁰² They agree that a ruling in Forsys’s favor would help “ensure that Article 95 of the Namibian Constitution [. . .] become[s] a dead letter.”³⁰³ With regard to the underlying natural resource issues, the farm owners argue that the Supreme Court should overturn the High Court’s opinion and allow the litigation to proceed in order to “ensure that the ecosystems, essential ecological processes and biological diversity are maintained on a sustainable basis.”³⁰⁴ The appeal was heard on March 17, 2009, and the Supreme Court reserved judgment on all of the issues presented.

Despite the ongoing controversy, the Ministry of Mines and Energy has granted Forsys a mining license entitling it to mine uranium on the Valencia site for twenty-five years,³⁰⁵ and Forsys has applied for a permit to abstract 500 cubic meters of water per day from existing boreholes along the Khan River.³⁰⁶ The Ministry of Agriculture, Water and Forestry is considering the application now. Additionally, J.F. Horn, the owner of the Valencia Farm is attempting to keep Forsys from commencing operations on his land until they renegotiate their lease agreement to grant him more favorable terms.³⁰⁷ This has resulted in an emergency interdict proceeding unrelated to the permit challenges.³⁰⁸ With no sign that any of the many parties to the litigation intends to retreat, the Forsys controversy will likely continue for some time.

D. GENERAL PRINCIPLES DRAWN FROM THE VALENCIA MINE CASE STUDY

Beyond its utility in demonstrating the real world effects of the present regulatory regime for water management in Namibia, the Valencia Mine case underscores critical concerns that informed many of the new policies adopted and laws promulgated as well as many of the criticisms of the domestic law. The Valencia Mine case demonstrates the importance of creating sound, coherent procedures with measures designed to ensure collaboration among

298. See *Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at ¶ 13 (stating as a prelude to a discussion of relevant law that “[a]s pointed out by first respondent itself, the area where the permits were granted[] falls within a declared subterranean water area. Government must have done research, and must have had a particular reason why that area had been so declared.”).

299. See *Namib Plains v. Valencia (Pty) Ltd.*, Judgment, (P)A 78/08, at ¶¶ 16-17.

300. See *Namib Plains v. Valencia (Pty) Ltd.*, Appellant’s Heads of Argument, at ¶ 13.2.

301. See *id.*

302. *Id.* at ¶¶ 24, 33.

303. *Id.* at ¶ 35.

304. *Id.*

305. See Brigitte Weidlich, *Government Grants 25-Year Uranium Licence to Canada’s Forsys*, *supra* note 250.

306. See Ministry of Agriculture, Water & Forestry, Forsys Application, *supra* note 275, at 1.

307. See Werner Menges, *Valencia Uranium Clashes in Court*, *supra* note 253.

308. *Id.*

ministries in order to ensure effective resource management. The experience with the Valencia Mine shows how in the absence of ministry mandates to assess the environmental impact of water extraction, consult with stakeholders, follow strict rules, and guarantee basic transparency, decisions that might seem logical in the closed universe of a single permitting decision can have devastating impacts for individuals or entire regions. Further, as the High Court's decision demonstrates, an opaque regulatory regime yields unexpected, incongruous, and unsustainable results.

Namibia's natural resources management system is particularly fraught with this danger, because, while the Constitution treats the environment as a stakeholder with legitimate interests to be considered and weighed, the current regulatory structure does not. The Government's recognition that environment is a legitimate stakeholder means that the State and the people of Namibia have decided to be mindful of the effects of any proposed actions on the environment, and to stand behind this concern by sacrificing, when necessary, some measure of economic gain for that security.

In light of that understanding, the regulatory process was a deeply flawed one in which Forsys was the only participant in the review process and thus likely did not comport with Namibia's constitutional guarantees of administrative justice. The process not only allowed one-sided advocacy, it also included the failure to confirm the official status of the affected area (to determine if the permits could legally issued), the refusal to engage other stakeholders, and the approval of applications for the abstraction of more water than had been allowed previously despite admissions that there were no data the resource could withstand the effects of such levels of abstraction. It seems likely that the shortcomings of the process were due, at least in part, to the Government's effort to further economic development goals.

The Court's decision in the Forsys case is more difficult to understand given that it punished the farm owners for bringing a meritorious claim in the only forum open to them after the ministries and Forsys refused to reconsider the decision to grant the permits. An open permitting process requires that dissenting voices be heard and given due consideration. In this case, the private citizens who owned the Namib Plains farm came forward after being kept in the dark about the pending permit applications. Though the permits held were invalid, the farm owners were assessed a stringent fine in essence for bringing a meritorious case. This case illustrates well how the current regulatory regime is at odds with the Government's expressed preference for broad stakeholder participation on water management issues.³⁰⁹ In a resource-scarce country like Namibia, encouragement of genuine participation serves a purpose greater than just information gathering; key stakeholder participation is of critical importance if Namibia is to achieve its goals of sustainable social and economic development.³¹⁰

The Valencia Mine case starkly illustrates the fact that the current water management laws allow a result that privileges a foreign corporation over long-term economic stability and environmental sustainability. While mining has long held, and probably will continue to hold, an important role in Namibia's economic development,³¹¹ whether it provides the country with an overall economic advantage remains far from clear in any given situation.

Looking at the economic issue, the Valencia Mine case shows that forecasted financial benefits are not always an assured outcome. Namibia receives financial remuneration from taxes and royalties assessed on the profitable sale of ores extracted from the mines in the country.³¹² But for the taxes and royalties to accrue in the volume that Namibia expects, in exchange for assuming the significant risk of harm to its environment for generations to come,³¹³

309. For example, while not in force, the Water Resources Management Act clearly emphasizes participation to some extent by every affected stakeholder. *See* Water Resources Management Act, No. 24 of 2004, § 35.

310. In a paper considering how environmental management goals can jibe with economic development objectives in a sustainable fashion, an analyst stated the important role that the Constitution and laws play in such a dynamic:

Upholding principles of human rights, civil liberties and multi-party democracy is also part of good governance. Namibia's Constitution – one of the most progressive in the world – constitutes a crucial anchor for these important principles. S[ustainable] D[evelopment] requires, inter alia, the strengthening of the institutional framework for the fair and equitable implementation of the above principles; the creation of an enabling environment for better representation and greater participation of stakeholder groups in governance and policy development and implementation; and the provision of incentives for policies to build on informal as well as formal institutions. KRUGMANN, *supra* 1, at 22.

311. *See, e.g.*, NAMIBIA'S GREEN PLAN, *supra* note 88, at 76 ("It seems reasonable to assume that most minerals are a long way from total depletion and, given the relatively unexplored nature of large parts of Namibia, mining activities in this country will probably be possible for a long time to come.")

312. Salman Partners, Research, Forsys Metals Corp. (Mar. 12, 2008), in *Namib Plains v. Valencia (Pty) Ltd.*, Founding Affidavit, (P)A 78/08, at Annexure 121 (stating that "[a] Namibian corporate tax rate of 30% and a Namibian state royalty of 2%" is the assumed payment to the government for the Valencia project).

313. Forsys's own hydrogeological analysts acknowledge that the risks are tremendous. *See* Water Sciences CC, *supra* note 89, at 30 (stating that the radioactive mine waste "will not decay entirely for thousands of years," posing a "potential hazard to public health and safety.").

the mines must operate at a full capacity continuously throughout the life of the mine, and the market value of the extracted ore must remain high enough such that it is profitable for the mine to continue operations.³¹⁴ When the value of a particular mineral falls, mines are either permanently closed or their development is shelved until a later date. This happened in Namibia in the mid-1990s when the price of copper fell, forcing closure of the Tsumeb copper mine and a delay in the development of the Haib copper mine.³¹⁵ Similar scenarios are already developing in Namibia, as “commodity prices that have fallen sharply” due to the global financial crisis. The crisis has caused Namdeb, a diamond mining company in Namibia, to “warn[] of a ‘challenging and unpredictable diamond market in the year ahead.’”³¹⁶ In terms of immediate effects, nearly 600 jobs were lost by the sudden closure of two copper mines on November 27, 2008.³¹⁷

A similar problem is occurring now in the uranium market.³¹⁸ The analysis of the social and economic aspects of the Valencia Mine project that Forsys included in its Environmental Impact Assessment makes clear that in planning the project, Forsys assumed that the value of a pound of uranium would be worth US\$100 for the first three years of the mine’s life, and US\$75 for each year of operation thereafter.³¹⁹ This assessment was prepared in November 2007 when a pound of uranium was valued at US\$92 and had seen considerable growth over the previous months.³²⁰ At the time of this report, a pound of uranium trades for US\$48, and the available market information indicates that the price is not expected to rise significantly above that point for the foreseeable future.³²¹ This decline is not surprising. In fact, in the main text of its own report, Forsys states that until the 2007 bubble, the price per pound of uranium had reliably fluctuated between US\$10 and \$15 since 1988.³²²

The market value question is significant because Forsys’s own analysis makes clear that the Valencia mine could not operate at current pricing: “if the price was to drop below US\$60, there would probably be a need for some scaling back of mining” and “[a] significant decrease below US\$60 would probably result in further scaling back and . . . may even force closure” of the mine.³²³ Though the Forsys report does not define what constitutes a “significant decrease below US\$60,” it seems that by any reasonable measure a price that is 20% below the cutoff line of US\$60 might qualify as a significant decrease. Given uranium’s current market value then, what guarantee does the Namibian Government have that it would see any royalties from the project?

In other words, if the mine were operational today, under Forsys’s own assessment, it certainly would not be operated at full capacity, and most likely would be closed entirely. This would naturally cause the promised economic benefits to dry up as well. The lower market value of the commodity would mean lower royalty and tax revenues for the Government, and a closed mine would generate no royalty or tax funds for the Government at all.

In addition, if the mine were to cut back operations or cease functioning altogether, many of the jobs promised to Namibians—at least several hundred over the life of the mine—could disappear or fail to materialize altogether. Without a mine to support, there would be no growth in the mine’s environs from the support industries that often develop, such as hotels, restaurants, and retail stores. Finally, with little or no direct or indirect windfall from the mine and attendant business, local governments would not be able to undertake any hoped-for improvements to schools, clinics, and infrastructure.

The only constant, then, are the effects that the mine, whether in the construction, operation, or decommission phase, would have upon the local population, the natural resources, and the flora and fauna of the region, not to

314. KRUGMANN, *supra* 1, at 6 (“In the short- to medium-term, the level of mining activity and investment in new mining ventures is determined by international market prices for key minerals (diamonds, zinc, uranium, gold, etc.) as well as by already operating or firmly planned developments.”).

315. See SOCIO-ECONOMIC AND FINANCIAL ISSUES: THEME REPORT, *supra* note 9, at 18.

316. *Namdeb Braces for Rough Ride*, THE NAMIBIAN, Nov. 14, 2008, available at <http://www.namibian.com.na/2008/November/national/083BAD86BB.html>.

317. Werner Menges, *Hundreds of Jobs to Be Lost As Last Copper Mines Close*, THE NAMIBIAN, Nov. 28, 2008, available at <http://www.namibian.com.na/2008/November/national/08400325EA.html>.

318. Much the following discussion is based on an analysis of the likely economic and social impacts of the Valencia project that appeared in *The Namibian* November 7, 2008. See Andrew Ardinger, *Who Will Be the Winners and the Losers in Nam’s Uranium Rush?*, THE NAMIBIAN, Nov. 7, 2008, available at <http://www.namibian.com.na/2008/November/marketplace/08398C14B1.html>.

319. See Tony Barbour and Hugo van Zyl, *supra* note 256, at 16.

320. See *id.* at 17.

321. See UxC Consulting Company, LLC, “UxC: Ux Prices Indicators,” http://www.uxc.com/review/uxc_Prices.aspx (last visited Nov. 14, 2008).

322. DIGBY WELLS & ASSOCIATES, ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN FOR THE VALENCIA URANIUM PROJECT 2 (Mar. 2008).

323. Tony Barbour and Hugo van Zyl, *supra* note 256, at 16-17.

mention the already scarce water supply. The risks of harm to the environment are all the more troubling in the case of a foreign company, which could simply leave Namibia to deal with all of the consequences of any failed enterprise.

Transparency and participation are both key to developing a process that ensures the Government will make the best decisions possible when issuing licenses to mining companies. The input of all of the stakeholders—not just the private landowners as in the case of the issuance of water permits for the Valencia Mine—enables policymakers to balance the potential social and economic benefits with the risks that the operation will fail and/or create significant and lasting environmental damage. This is where the purpose expressed in Article 1 comes into play: the people of Namibia ultimately exercise their sovereignty through the democratic institutions of the state so that they can continue to manage the scarce, fragile resources.

The principle of transparency undergirds the new Water Resources Management Act and is reflected in the stringent requirements imposed by the new Environmental Management Act. Because, “[w]ater resource management in the Namibian context is, above all, an exercise in risk management,”³²⁴ it is critical to take into account all of the potential risks from overuse. To do this, a decision maker must have the input of all potential risk makers and risk managers that may act on a given situation. The Forsys case shows that at present the domestic water law of Namibia fails to accomplish this end by creating an ad hoc, uncoordinated, and opaque process that is at odds with the guarantees of the Constitution. Not everyone who might be negatively affected by the actions of the Government may have the means access to challenge such decisions in court. And yet, had the farmers not successfully challenged the issuance of permits for the Valencia Mine, Forsys would have successfully extracted the amount of water in just three months that the farmers in the area would use over a period of thirty-six years.

324. NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 15.

Concluding Recommendations

The analysis of Namibia's domestic water law and the case study demonstrating the shortcomings of the present legal framework provide many opportunities for the improvement of Namibia's water law. The Valencia Mine case shows that there is active participation by a wide variety of stakeholders in the process, including well-meaning Government officials attempting to implement sound policy under an inherited, patchwork regime, and experts acutely aware of the challenges facing Namibia.

Transparency

First, transparency is a critical component of a successful water management regime. The Water Resources Management Act compels Government actors to carefully consult with, and consider the needs of, every interested stakeholder, including the natural environment.³²⁵ It is the Government's stated goal to implement this legislation within the next five years.³²⁶ Even if full implementation of the WRMA continues to prove difficult, the Ministry of Agriculture, Water and Forestry could adopt some of the Act's provisions by promulgating and publishing regulations that would take the place of Regulation 1278. Given the Minister's broad discretion under the Water Act of 1956,³²⁷ he could choose to instill more a formal, open process very easily and at a minimal cost. For instance, it could become the policy of the Ministry not to review applications without attached proof of publication of plans, or without affidavits from concerned stakeholders where they affirm that the applicant contacted them, explained the project, and informed them of their opportunity to object in a timely fashion. Relatively small steps like this would open the process and ensure more accountability, and would also train all participants in the procedures and steps that will be required once the WRMA is fully implemented.

Fee Structure

In the same vein, the Minister could also adopt a new fee schedule housed within the office that reviews permit applications. The fees due for permits and applications at present are both insubstantial and not collected by the reviewing body, this "lead[s] to a general non-payment for permits."³²⁸ In order to aid enforcement, the Minister could consider adopting a fee structure like the United States employs under its National Environmental Policy Act ("NEPA").³²⁹ The common practice there is to require the applicant to pay for all aspects of the required Environmental Impact Statement, including the necessary experts and data collection. Similar policies are in effect in over 100 countries.³³⁰ This ensures that only serious developers with well-developed plans make proposals, relieves the state of a large financial burden in considering a proposal, and further places the onus on the developer to prove that the plan will not have an adverse environmental impact. While it seems from the Valencia Mine case study and from an analysis of the Environmental Management Act, No. 7 of 2007,³³¹ that this is perhaps also common or intended practice in Namibia, formalization and implementation of this policy would accrue the same benefits. Since it seems that the Ministry's efforts to administer a transparent process are hamstrung by a lack of resources, increasing fees and streamlining their collection may have a particularly beneficial effect in the near future.

Information Gathering and Dissemination

Underlying both of the preceding recommendations is the idea that a greater sum of knowledge spread out across more people allows for better, more equitable results. Though the Government has acknowledged the Apartheid regime's "considerable technical expertise" in water management, it also pointed out that that expertise, instead

325. Water Resources Management Act, No. 24 of 2004, §§ 34-35.

326. REPUBLIC OF NAMIBIA, THIRD NATIONAL DEVELOPMENT PLAN, *supra* note 2, at 127.

327. *See supra* discussion at Part II(B)(1) The Water Act, No. 54 of 1956.

328. SOCIO-ECONOMIC AND FINANCIAL ISSUES: THEME REPORT, *supra* note 9, at 70. *See also supra* note 200 & accompanying discussion.

329. 42 U.S.C. §§ 4321 *et seq.*

330. Basic Environmental Impact Assessment Process (NEPA) Training Series, <http://www.eiatraining.com/html/basiccia1.html> (last visited Nov. 29, 2008).

331. *See* discussion *supra* at Part II(C)(1) 1. Environmental Management Act, No. 7 of 2007.

of being shared widely and useful for a wide variety of Namibians, was perverted into “an inaccessible centralised bureaucracy in which the needs of the people on the ground, particularly the black majority, were not taken into account.”³³² This demonstrates the important role a modern water policy can play in redressing social wrongs, as the Water Resources Management Act is specifically designed in part to do.³³³ Beyond this, though, that analysis shows the importance not just of gathering information but also of disseminating it. From the single subsistence farmer to a community the size of Windhoek to corporate concerns in the desert, the more each user of the water resource is aware of his or her impact and of the ability of the resource to sustain it, it stands to reason that that user is more likely to make responsible decisions. In order to facilitate this, the Minister could publish regular reports about the health of the resources in a specific area, and could more stringently enforce data requirements for permit applications. Furthermore, in an effort to also aid the implementation of the WRMA, the Minister could begin cataloging and opening for public study the information that has been collected over the years. Ultimately, though this report has largely focused on the activities of landowners, corporations, and Government leaders, the water resource affects all residents of Namibia. Expanded information collection and distribution can assist each citizen in formulating plans to dampen the irregular year-to-year impacts of Namibia’s variable climate.

Encouraging Corollary Legal Development

As described above in the analysis of secondary domestic statutes and relevant constitutional provisions, there are many facets to a comprehensive water policy. For example, though decisions like the High Court’s opinion in *Kessl* have established the right to administrative justice under Article 18, an Administrative Justice Act has not yet been written.³³⁴ As the Forsys case study demonstrates, a formalized appeals process could encourage stakeholders to more genuinely consult with one another, and could result in avoiding litigation. Working to develop policies and laws like that would have immediate implications on Namibia’s water policy. Simply implementing the Environmental Management Act, No. 7 of 2007, would ensure the data collection and the transparency that the WRMA seeks to instill, but would do so in an even broader way than that statute would as it would touch upon all aspects of the environment. Even if development of new water management policies proves difficult at points, policymakers and citizens can, in a nod to the particularly interconnected nature of Namibia’s fragile water resource, strengthen water policy while strengthening other aspects of Namibia’s political, social, and economic culture.

332. NATIONAL WATER POLICY WHITE PAPER, *supra* note 1, at 17. *See supra* note 106 & accompanying discussion.

333. Water Resources Management, Act. 24 of 2004, § 35(e) (stating that the Minister “must consider [. . .] the needs to redress past racial and gender discrimination” when considering a permit for water abstraction”).

334. *See* discussion *supra* at Part II(A)(2) 2. Article 18.

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