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THE HUMAN RIGHT TO WATER: ITS PROVISION AND VIOLATION IN PAKISTAN

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INTRODUCTIONS

"We made from water every living thing." (Qur'an 21:30)

Although water is a basic necessity of life, its value is determined differently in many parts of the world.1 Scarcity causes its value to increase incrementally, a phenomenon witnessed in the developing world, where in some localities its value is comparable to that of gold.² Furthermore, as industrialization continues to accelerate in the developing world, the need for water will increase exponentially because its main use will not be limited to agriculture and domestic consumption.3 Globally, over 1 billion people currently lack access to basic water supplies and half of the developing world's population suffers from disease due to water contamination4, as a result of which, more than two million children die each year.⁵ International governance regimes are therefore faced with the difficult task of categorizing water in a manner that promotes the global citizenry's standard of living most effectively.6 The water crisis in South Asia is particularly grave and in Pakistan it is fast reaching monumental proportions. According to a report published by WWF entitled "Pakistan's Water at Risk," the per capita availability of water has fallen from 5000 cubic meters per annum in 1951 to 1100 in 2007, a number which is predicted to fall further in 2012. The World Bank places Pakistan among the top 17 thirstiest countries of the world.7 The vast majority of Pakistan's population does not have access to clean, portable

and safe drinking water. In Sindh approximately 24% of the rural population relies on unsafe water sources such as wells, rivers, canals or streams. The situation is worse in rural Khyber Pakhtunkhawa where 46% of the population is dependent on such sources and in Balochistan a shocking 72% lack access to safe water sources.8 Portable water in Pakistan is often contaminated by extremely hazardous elements such as turbidity, bacteriological contaminations, dissolved solids, nitrate and arsenic.9 Pakistan is one of those countries least likely to accomplish the sanitation target set out by the UN Millennium Development Goals (MDG). According to the World Health Organisation only 47% of people in Pakistan have access to sanitation. The target is to half the number of people without such access by 2015 and Pakistan is set to achieve this in 2025, an alarming ten years later than the MDG target.¹⁰

Today, Pakistan is also counted amongst the world's most arid countries. A study conducted by the Woodrow Wilson Centre in Washington shows that 90% of Pakistan's fresh water is utilized for agricultural purposes. However, "intensive irrigation regimes and poor drainage practices have caused waterlogging and soil salinity throughout Pakistan's countryside. As a result, vast expanses of the nation's rich agricultural lands are too wet or salty to yield any meaningful harvests." According to the study, by the year 2025 Pakistan's annual water demand will exceed its supply by almost a 100 billion cubic meters.¹¹

The human right to water has been recognized constitutionally, legislatively, and judicially in Pakistan;

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its attainment, however, continues to be a major problem. With Pakistan one of the 17 countries currently facing a water shortage,12 and over 79 percent of water collected unsafe for drinking, 13 the question arises as to why an adequate supply of water has not been met. The failure of the government and other stakeholders, including civil society members, to effectively provide for water rights can be attributed to challenges that confront many developing nations: corruption, the lack of human capital and technical expertise, and an inadequately trained regulatory work force. Moreover, Pakistan's unique geopolitical and social realities make it extremely difficult for these rights to be realized, and unnecessary intrusions by international donor agencies into local affairs and policymaking also deprive citizens of their right to clean, safe water.

THE THEORETICAL BASIS FOR CLASSIFYING WATER AS A HUMAN RIGHT

The quintessential question presented here is why should water be classified as a human right instead of an economic good or an object of environmental protection? Those in favor of classifying water emancipation as a human right, either in the form of a civil-political or socioeconomic right, argue that the human rights framework is the most effective way to provide access to an adequate and healthy water supply. Due to the presence of an established legal framework through which emancipation is most pragmatically realizable, violations of this right can be adequately ascertainable. Hence, state conduct can be most effectively monitored for implementation.

The problem with categorizing water as an economic good is that the inequitable distribution of water is condoned by states.¹⁴ One fear with this approach is that access to water will be determined solely by market forces, not by equity and need.¹⁵ For instance, the economic good-based approach can be used to promote its privatization,16 based on the full cost recovery principle¹⁷ with the goal of improving the water supply system infrastructure.18 Unfortunately, the World Bank actively supports the privatization of utilities including water in developing nations. According to a World Bank report on the water economy in Pakistan, the government of Pakistan has been urged to let private actors be responsible for the supply of water for domestic use and consumption and for irrigation purposes.¹⁹ In turn, the government has been directed to focus on matters of flood control, sewage, and on major storage projects.²⁰ This report is troubling particularly when considering that privatisation of the electricity sector in Pakistan-which was actively supported by the World Bank-is considered completely unsuccessful.21 The country now faces an acute shortage of electricity and tariff rates have risen exponentially.²² The crisis is exacerbated by the rampant

corruption and inefficiency of the state bureaucracy which leads to massive delays and shortages even when the availability of water can be ensured.²³ The situation is worsened still by the lack of coordination and intradepartment organization among the different departments that have oversight of the water and energy sectors in Pakistan.²⁴ The dynamics of privatization have led to the installation of rental power houses, instead of hydel and coal-fired thermal power stations for power generation²⁵ and this is partly blamed for the failure. Therefore, the restructuring of institutions that was a consequence of

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privatization of utilities has negatively impacted the ability to deliver water and energy and keep costs low in Pakistan and other developing nations. While privatisation of water supply in certain developed countries like England might be considered generally successful, improved supply was a consequence of increased investment therefore costs also increased in such instances.²⁶ In developing countries, however, high-increases in water prices have resulted in a failure of these projects as the general public is unable to pay for the service.27 This also results in the non-provision of water to those who cannot afford it.28 Private suppliers of water are also less capable in confronting extraneous challenges routinely witnessed in developing countries such as facing impediments caused by corruption, natural disasters and economic recession.²⁹ The private sector is also hesitant to deliver water to the majority population that live in rural areas. Rural populations of Bangladesh, Ghana, and Nicaragua have had to pay almost 5-10 times more than previously to obtain clean water as a result.30 People who cannot afford to pay also routinely become victims to water-borne disease.31 The issue of privatization of water and the consequent violations of the human right to it has been dealt with equivocally by leading human rights experts including the United Nations Committee on Economic, Social and Cultural Rights (CESCR).³²

The environmental protection paradigm, however, focuses solely on conservation and protection of the environment; solutions are thereby derived from soft-law principles and non-binding agreements and arrangements. This approach is also constrained by sovereignty and economic considerations, ³³ with violations primarily subject to interstate negotiation, mediation, and arbitration into which the interest of non-state parties is not adequately factored. ³⁴

The positive aspect of the human right-based approach is that it examines water-based rights from an anthropocentric perspective and thus can more concretely identify state violations and pressure states to fulfil their obligations to provide and improve water infrastructure.³⁵ Furthermore, classifying water emancipation as a human right allows individuals to demand remedies at the national and municipal levels, where there are a number of adequate judicial remedies³⁶ as well as at international forums historically closed to non-state-based participation.³⁷

THE HUMAN RIGHT TO WATER UNDER INTERNATIONAL LAW

The Scope of the Human Right to Water

The right to water does not mean that everyone is entitled to a limitless quantity of water for all needs and wants. In fact, this right is limited to having access to water of sufficient quantity and quality for fundamental uses relating to the adequate protection of human life and health, for purposes of consumption (e.g., in order to prevent dehydration), for hygiene and sanitation, and "for cooking, cleaning and subsistence agriculture." It does

not include the right to water "for commercial, industrial or large-scale agricultural or irrigation activities." 38

The Domestic Justiciability and National Implementation of the Human Right to Water

If one is to assume that water is a human right, then the parameters of that right must be ascertained. Firstly, the stature of the right to water must be established in the hierarchy of rights. Secondly, its position as an independent human right or a subordinate right must be determined. Thirdly, its role must be defined vis-à-vis other rights. In other words it must be decided whether the right to water serves as a means for achieving an explicitly established right, such as the right to life or health. It is also important to determine that if it is a right, whether primary or subordinate, it is also subject to immediate realization. If it is programmatic in nature, it is subject only to progressive realization and implementation based on state resources.

It is pertinent for Pakistan to examine the human rights framework to guarantee the availability of water for its citizens. Although the human rights situation in the country is deteriorating, with both state and non-state actors partaking in serious violations, 39 this framework remains relevant for Pakistan. This is because it remains the most efficacious means to hold the state accountable for its violations of human rights, including and especially the fundamental right to water. In examining this issue, it is important to look at how the justiciability (or ability to be tried in a court of law) of the human right to water has been pursued in different jurisdictions. Such an assessment will provide insight on the most efficacious and practical way of realizing such rights. Two countries, India and South Africa, have determined the justiciability of this right in very different ways. This right's intrinsic nature, as well as its content and its implementation, have all been viewed differently.

The Indian constitution contains no enumerated-justiciable right to water.⁴⁰ Rather, this right is derived from the constitutional and fundamental right to life,

which is a justiciable civil and political right. On the other hand, this document also lists socioeconomic and cultural rights⁴¹ that are subject to progressive implementation and are non-justiciable under Article 37.⁴² The country's Supreme Court has affirmed the justiciability of this right on numerous occasions.⁴³ Bangladesh and Pakistan have followed the Indian model.⁴⁴ The court also has ruled that the pollution of water violates the human right to water.⁴⁵

Alternatively, the South African constitution explicitly recognizes the right to water as an independent, justiciable, and legally enforceable right. As it is socioeconomic in nature, however, it is a positive right. Unlike negative liberties, which are rights derived from the freedom of interference by other persons, it is not considered subject to immediate realization but to progressive implementation. Therefore, the constitution recognizes the right to water⁴⁶ but subjects it to the state's ability to

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fulfil that right in light of available resources.⁴⁷ The courts have held the non-provision of water to be unacceptable when there is a proven inability to pay for basic water service.⁴⁸A number of African nations have followed this approach.⁴⁹

As a whole, the South African approach has been far more successful in ensuring provision of water to its population. More than 37% of South Africa's population lacked access to water in 1994. Between the establishment of the constitutional provision in 1996 and 2002, South Africa was able to successfully ensure free access to basic water service to 27 million people or almost 60% of its population. Using the human rights approach, South Africa is able to provide water to a growing proportion of its population. ⁵⁰

On the other hand, from a development rights

perspective, the Indian approach has been criticized for not being effective in securing affirmative rights and entitlement to water.⁵¹ This is because the vessel for protection, namely, the right to life, is a negative right that protects individuals from interference. What is needed, however, is for states to be obligated to provide healthy water in adequate quantities to their population. The Indian approach is focused more on respect and protection, rather than on the fulfilment of rights.

As India safeguards the negative right of freedom from interference, water freedom as a derivative civil or political right leads to a passive approach to water emancipation. Such an approach, however, is ineffective when faced with today's prevalent global water crisis. ⁵² There is also a limit to which the expansive reinterpretation of civil and political rights—negative rights under which a state has a duty to

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refrain from certain actions—can lead to the provision and realization of positive rights, under which the state has a duty to take certain actions through judicial activism.

South Africa provides legislative protection to the right to water by enumerating it as a positive state-based obligation; the judiciary's role is limited to determining whether the government is fulfilling its constitutional obligations or violating the law. Unlike the Indian approach, which also gives rise to judicial unpredictability, 53 such vesting of authority in the judiciary makes its assessments primarily legal. Hence, in South Africa judges are not forced to indulge in policymaking that is beyond their jurisdiction. In turn, this accords more sanctity to legal decisions and allows the judiciary to effectively monitor the government for compliance without infringing upon the authority of other governmental organs.

Furthermore, courts are in a position to direct the

government to allocate funds for water emancipation initiatives and then monitor such spending.⁵⁴ The judicial power to monitor the government to positively provide water is not unfettered; it is constrained by the reasonableness test as enumerated in the South African Constitution under Article 27(2).⁵⁵

Criticisms on the Human Rights Approach to Water

The Human Rights Approach has been subject to criticism from various quarters, with some of the most notable critiques addressed below.

First, some consider this approach simplistic. It is argued that the right to water is not only present in the domain of human rights but also in others, including environmental rights, indigenous peoples' rights, and sustainable development. However, such an overlap is not necessarily a limitation. Indeed, it can add credence and strength to all claims. Moreover, this approach reinforces the state's obligation to provide water. Also, employing such an approach allows individuals to seek remedy for violations at both national and international forums.

The second criticism asserts that the language of human rights is malleable and therefore can promote double standards. Opposing sides can exploit the flexible and ambiguous nature of this language.⁵⁹ But such flexibility is important because it allows the interpretation of these rights to adapt to changes in science, technology and the environment, permitting this approach to remain relevant and responsive rather than rigid and unchanging.⁶⁰

Another notable critique is that classifying water as a human right impedes the realization of hierarchically superior rights—most significantly the right to development. Some have argued that measures such as providing enough water to the entire population to ensure an adequate standard of living,⁶¹ safeguards against pollution,⁶² conservation of water sources, and protection of the rights of the indigenous communities can prevent the exploitation of natural resources⁶³ and hinder

industrial development.⁶⁴ Therefore concluding that the human rights based approach can be used to retard the economic progress of the Third World. However, such an argument assumes that the right to development can supersede the human right to water. This is not the case since the right to water is directly related to the nonderogable rights to life and human dignity.65 The lack of adequate water supplies can result in the arbitrary denial of the right to life. The state's obligation to protect the right to life can also be extended to sustain life and this cannot be achieved without provision of water. Indeed, the right to life can be derived from the human right to water since human beings cannot live without having adequate access to water. Secondly, the prolonged denial of safe water constitutes cruel and inhumane treatment and hence violates the right to human dignity.66 Hence, the human right to water must also be considered nonderogable.67

Another important argument against the human right approach to water is that it does not account for political economy, which effectively dictates environmental policy. According to Henri Smets, a member of the European Environmental Council and the Water Academy, the problems with this approach are that it 1) creates international liability; 2) prevents commodification of water; 3) implies free access to water; 4) hinders liberalisation or privatisation of water utilities; 5) creates obstacles to free trade; and 6) facilitates legal harassment of water utilities or public authorities." In his view, water can be a commodity and a right concurrently. He supports his point by highlighting how, under the United Kingdom's successful privatization regime of water, it is illegal to disconnect water, yet in South Africa where water is an enforceable, fundamental, and stand-alone human right guaranteed under the constitution, it is frequently disconnected for segments of the population.⁶⁸ Such a view is problematic in the context of Pakistan where the state's poor infrastructural capacity, inefficiency, and corruption have deemed the privatization of water to be wholly unsuccessful. Moreover, the weakness of political institutions in Pakistan unfortunately precludes accountability. On the other hand, the human rights based approach facilitates the identification of state violations through various organizations such as civil society groups and international monitoring agencies therefore creating opportunities for oversight and intervention. ⁶⁹ Moreover, it allows for these violations to be checked through judicial review under the Pakistani judicial system.

PAKISTAN AND THE HUMAN RIGHT TO WATER

Pakistan's International Law Commitments on Water

Pakistan has ratified or acceded to all major human rights treaties, including CRC in 199070 and CEDAW in 1996.71 It ratified ICESCR in 2008 and the International Covenant on Civil and Political Rights (the ICCPR) and the Convention against Torture, Cruel, Inhuman and Degrading Treatment or Punishment (CAT) in 2010.72 Under its international law commitments, all of its reservations and declarations do not impact upon its obligation to protect the human right to water. The reservations primarily relate to Pakistan's commitments being subject to the injunctions of Islam, the dictates of the constitution, or not recognizing the jurisdiction of various adjudicative bodies like the ICJ.73 Pakistan has also ratified all of the Geneva Conventions,74 but not the optional protocols.75 Hence the obligations concerning water emancipation under General Comment 15 as well as under treaty and customary law are fully applicable.

Legal Protection of the Right of Water

Numerous constitutional provisions are relevant to the protection of water. Many of them relate to fundamental rights and are subject to immediate realization. The most relevant one is the *security of*

person under Article 9.⁷⁶ Others include the *inviolability* of dignity of man under Article 14,⁷⁷ the equality of citizens under Article 25, and complaints as to interference with water supplies under Article 155.⁷⁸

Under federal legislation, the relevant provisions relating to the human right to water, including the prevention of water pollution, include numerous provisions of the Environmental Protection Act, 1997,79 relating to the disposal of wastes and effluents and those of the amended Factories Act of 1934 relating to drinking water.80 Furthermore, the Pakistan Penal Code contains a criminal penalty for polluting the water of any public spring or reservoir.81 Another relevant piece of legislation is the Pakistan Council of Research in Water Resources Act which is primarily entrusted with improving the technology needed to advance, as well as to conserve, existing water resources. It is also required to provide recommendations to the government regarding the quality of water that needs to be maintained and how existing water sources may be utilized and conserved.82

Furthermore, the national government has approved various water and sanitation-based policies and guidelines. Under the National Drinking Water Policy83 the government recognized that access to clean drinking water was the basic human right of every citizen84 and that the government, by formulating this policy, was committed to providing access to clean and safe drinking water in an adequate and affordable quantity to the entire population. The policy also identified the current disparity and inaccessibility of water in Pakistan and acknowledged that this situation leads to various water- and sanitationrelated diseases among the people. It also defined drinking water as "water used for domestic purposes including drinking, cooking, hygiene and other domestic uses."85 Safe drinking water is defined as water that complies with national drinking water quality standards. With respect to access and adequacy, the policy mandates that the water be accessible to both urban and rural areas at a distance of no more than 30 minutes and defines "adequacy" as being between 45 and 120 liters per capita per day.86 The

policy declares that various forms of legislation are to be enacted to ensure the implementation of these measures, including the Pakistan Safe Drinking Water Act.⁸⁷

Furthermore, the National Sanitation Policy of September 2006 provides guidelines to the federal and provincial governments, as well as to the federally administered territories and local governments, to help them develop their sanitation policies for improving the quality of life for citizens. It recognizes the alarming lack of available sanitation facilities, except for a few cities and where sewerage arrangements are almost non-existent. This has, of course, led to various health problems. The policy stresses that the needs of women and children, both vulnerable groups that had previously been ignored, must be kept in mind while implementing policy guidelines.88 lt further mandates that provisional governments develop the bylaws that need to be implemented by the Tehsil Municipal Administration (TMA). Furthermore, all levels of the government are required to create awareness, promote research, and enable capacity building to address sanitation issues.89

Finally the National Environment Policy, 2005, seeks to provide a framework for addressing the country's various environmental issues, particularly the pollution of fresh-water bodies, air pollution, and lack of waste management. Among its objectives, it recognizes the need to meet international obligations effectively and in line with national objectives. 90 In listing its sectoral and cross-sectoral guidelines, the policy recognizes both the need for water supply and management and the concerns regarding health and environment. In addressing water supply and management, it lists a number of guidelines by which the government can ensure sustainable access to a safe water supply.91

Provincial legislation, such as the Baluchistan Ground Water Rights Administration Ordinance, 92 established regulatory and supervisory functions for the Provincial Water Board93 and a Water Committee to overlook the implementation of the board's policies. It also set up and laid out the Baluchistan Water and Sanitation Agency's

(B-WASA) functions: to plan, construct, and maintain water supplies in addition to providing sanitation to the Municipal Corporation and the Quetta Development Authority.⁹⁴

However, over the years these duties have devolved upon the municipal authorities. For instance, under the Punjab Local Government Ordinance (2001),⁹⁵ a number of provincial functions, among them water management and sanitation, have been entrusted to the TMA.⁹⁶ The functions of the TMA and Union Administration concerning water management are diverse: developing water resources, regulating sanitation services and disposal,⁹⁷ water supply and its maintenance,⁹⁸ as well as preserving all public resources of drinking water (e.g., wells and ponds). Serving the TMA is the Union Nazim, who has been entrusted with corresponding duties, among them preventing health hazards and breaches of those watercourses falling within his area of jurisdiction.⁹⁹

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Lastly, the Village Council is required to adhere to the ordinance's requirements, prevent the contamination of water, and develop and improve water supply sources.¹⁰⁰

The City District Government¹⁰¹ and the TMA¹⁰² are also responsible for enforcing the punishments for offences, as determined by the court, related to the contamination or pollution of water, the failure on the part of industries to dispose of hazardous waste, or of offences relating to providing contaminated water for human consumption.¹⁰³ Other forms of offences (e.g., the failure to repair leaking drain pipes and obstructing water pipes) have been made punishable by the issuance of tickets, rather than through the courts, and are therefore the responsibility of the Tehsil/Town Officer.¹⁰⁴

Clearly, this transfer of power from the provinces to

the municipal and district governments¹⁰⁵ means that some municipal services¹⁰⁶ (e.g., the water supply, access, and sanitation) have become the responsibility of the local government, especially that of the Tehsil Officer (Infrastructure and Services) and the Union Administration.¹⁰⁷

Seminal Judgments on Water Emancipation

The judicial treatment accorded to the right to water in Pakistan emulates the position of the Indian judiciary. The incorporation and significance of the most fundamental non-economic right, that of the right to life, in the written constitutions of both countries is a result of following American jurisprudence. ¹⁰⁸ In seminal superior court judgements, the denial of water rights has been viewed as a violation of the constitutional right to life ¹⁰⁹ and the *inviolability of [the] dignity of man.* ¹¹⁰

The utilization of the right-to-life principle for promoting the human right to water in Pakistan through judicial activism has been established. The Shehla Zia and others v. WAPDA case¹¹¹ has been the principle vehicle through which the courts have exercised their powers in relation to this matter. An important example of this approach can be seen in the Benazir Bhutto judgment,112 which followed the Shehla case and examined the right to life by stating that "it is a sacred right, which cannot be violated, discriminated or abused by any authority. The word 'life' is very significant as it covers all facets of human existence.... Life includes all such amenities and facilities which a person born in a free country is entitled to enjoy with dignity, legally and constitutionally."113 Furthermore, the court derived support for its position from American jurisprudence by stating that "constitutional law in America provides an extensive and wide meaning to the word 'life' which includes all such rights which are necessary and essential for leading a free, proper, comfortable and clean life." The court finally held that, "any action taken which may create hazards of life will be encroaching upon the personal rights of a citizen to enjoy the life according to law."114 The court thus implicitly recognized the right to

water.

In the case of Mrs. Anjum Irfan v. Lahore Development Authority through Director-General and others,115 an alarming amount of untreated water was being drained into the Ravi river and, as a consequence, the pollution in the watershed reached hazardous levels and was causing the spread of such diseases as jaundice and typhoid. The court determined that the pollution or fouling of the water of any public spring or the reservoir, so as to render it unfit for the purpose for which it is ordinarily used, is punishable under the law. It also took an expansive view as to the meaning of the fundamental right to life, read in conjunction with Article 14 of the constitution. 116 The court directed the respondents to implement the relevant provisions of the Pakistan Environment Protection Act, 1997, both in letter and spirit, and to frame all of the necessary rules and regulations.

In the case of General Secretary, West Pakistan Salt Miners Labour Union (CBA) Khewra, Jhelum v. The Director, Industries and Mineral Development, Punjab, Lahore, 117 leasing and excessive mining in the area, which had reduced the water catchment area, and the mining operations posed a serious danger to the already scarce source of water in this mountainous area. Under the constitution, the court held that in hilly areas, where access to water is scarce, difficult, or limited, the right to have pollution- and contamination-free water is a right to life. This, however, does not mean that persons residing in those areas where water is available in abundance do not possess such a right. The court added that the right to have unpolluted water is the right of every person, wherever he or she lives. In its judgment, the court directed the miners to shift within four months to a different location to avoid polluting the waters any further.

Several other cases deal indirectly with the right of water, including those that relate to contaminating coastal areas with nuclear waste¹¹⁸ and where waste from leather factories is polluting water and becoming a nuisance.¹¹⁹ An in-depth discussion of such case law, however, is beyond the scope of this paper.

A review of relevant judgements in Pakistan concerning water rights reveals that the approach utilized by the country's judiciary is similar to its Indian counterpart. Even leading academic jurists in Pakistan have openly advocated positive measures for a progressive implementation of the right to life. The approach's efficacy in dealing with water emancipation is, however, highly questionable because the implementation of this progressive interpretation has not led to any tangible measures in providing access to safe, potable water and addressing the public health concerns.

An Assessment of the Status of Water Rights

There are two recent expositions of the current status and functioning of water rights in Pakistan. The first is the commencement of the Clean Drinking Water for All (CDWA) project. In light of the UN Millennium Development Goals (MDG),¹²¹ both Pakistani authorities and such international stakeholders as the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) have undertaken development efforts in the country. In pursuance of the MDG in 2004, the federal government initiated the CDWA project, which is set to install about 7,000 water purification plants all over Pakistan. About Rs. 22 billion (USD 437 million) was allocated, out of which Rs. 13 billion (USD 259 million) was earmarked for Punjab. It is important to note that so far only a total of 2,000 have been installed. And, out of the 3,494 planned for the province, only 300 have been installed to date.

Despite the number of stakeholders and expectations involved, this project has been abandoned for a variety of reasons. First, there were problems regarding its political ownership. For instance, in Punjab the contractors were prequalified and financed by the ruling Pakistan People's Party (PPP), which leads the establishment/federal government; the government of Punjab was only entrusted with taking care of the execution phase. Although the latter signed the project contract, it always had an issue with the structure sketched by the federal government

for its implementation. Second, there were multifaceted problems with the financial arrangements between both governments concerning the project's implementation. The federal government only transferred Rs. 4 billion (USD 80 million), arguing that transfers were to be made on the basis of progress; the Punjab government was concerned that it was not being given the whole amount.

Another reason for the government's inability to deliver was bad governance. The local and Punjab government's community development department formed a Provincial Project Management Unit (PPMU), which was manned by technical experts, namely, environmental, chemical, and material engineers. This initiative failed when a bureaucrat was put in charge, even though a technocrat and or an individual having technical expertise in project management would have been a better candidate. Furthermore, funding problems led to contractual failures.¹²²

Projects like CDWA strive to achieve a temporary solution to providing limited access to clean drinking water that is not portable (i.e., supplying clean drinkable water in taps). Clean water is accessible only to those people who can directly access it from the plant area. To make matters worse, water purification plants have a lifetime of only ten years, for they are not envisaged as permanent solutions to the core problems related to making clean water available and accessible to the general population.

Food security is heavily reliant on water resources, and agriculture is the largest consumer of fresh water.

A permanent solution for portable access is impossible if the relevant authorities do not rebuild and maintain the faulty underground water distribution network.

An example of water and sewerage distribution mismanagement can be seen at Lahore's Sozo Water Park: the allowance of internal inlets of sewage, which include

three housing societies, eight squatter settlements, and slums into the Lahore Canal have given rise to serious public health concerns.¹²³ The polluted water is known to cause water-borne diseases and infection. Therefore, the secretary of the Environmental Protection Department (EPD) summoned the concerned authorities¹²⁴ to discuss how to shift these twelve inlets away from the canal.125 Following the 5 May 2011 meeting, the solutions outlined included blocking the sewerage inlets and effective enforcement, laying sewage pipelines in the area that empty into the Ravi river, and installing dustbins along the canal to make it easy for people to dispose of their solid waste. The director of the EPD's laboratories expressed the view that the district government should plan and devise a long-term solution instead of building a sewer trunk that would end up discharging waste into the river, which is already affecting the quality of irrigational waters and, ultimately, the crops in southern Punjab.

Food Security and the Human Right to Water

"Food security [is] a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life."126 Food security is heavily reliant on water resources, and agriculture is the largest consumer of fresh water.¹²⁷ Statistics show that agricultural irrigation consumes almost 98 percent of the country's fresh water resources. 128 As the demand for water increases amidst climate change and an increasing population, food security has become a progressively serious global threat. Food demand in Pakistan is estimated to increase by 40 percent based on its projected population increase by 2025.129 The risk associated with food insecurity is apparent: a recent Food and Agriculture Organization (FAO) report indicated that undernourishment in the country is rising exponentially.¹³⁰

In Pakistan, the right to food is constitutionally protected. Under Article 38, which deals with promoting the people's socioeconomic well-being, the state is

responsible for providing such basic necessities of life as food.¹³¹ Furthermore, the ICESCR requires Pakistan to improve and develop its agricultural industry, including modes of food production.¹³²

Previously, Pakistan lacked a legislative framework that focused on food security concerns. There was, however, poorly enforced legislation that could have been utilized to achieve the minimum level of food safety. Examples of such legislation include the Pure Food Ordinance of 1960¹³³ and the Cantonment Pure Food Act of 1966,¹³⁴ both of which regulate standards related to providing pure and unadulterated food materials for consumption but do not address food security.

In Punjab, the recently approved Punjab Food Safety and Standards Act of 2011 may make providing food security possible.¹³⁵ Not only does it define standards on food quality, but it also seeks to establish the Punjab Food Authority to ensure the availability of food that is safe for human consumption. Most importantly, this legislation includes water within the definition of food.¹³⁶

In relation to irrigation, the relevant regulatory authority is the Indus River System Authority (IRSA), which was established in 1992 to implement the Water Appointment Accord as agreed to by the provinces. Although relatively effective in distributing water to the provinces in the past, IRSA has recently indicated that it expects acute water shortages for irrigation. In this regard, its chairman recently highlighted the urgent need to institute various measures to achieve adequate water storage and management so that this developing crisis can be mitigated.¹³⁷ The chief executive of the South Asian Conservation Agriculture Network (SACAN) has also raised concerns about the shrinking water resources and the water and economic losses caused by the current irrigation network. He has suggested ways to reform the water management system so that it can better collect and store water resources. 138 It is therefore imperative that access to water for irrigation be improved. Ninety percent of Pakistan's agricultural production comes from irrigated lands, and the country is becoming ever more water deficient.

Another problem threatening food security is the lack of planning and coordination between the regulatory bodies responsible for developing food and water policy. As food production is wholly dependent upon the provision of water, depriving the landowners of water rights and combining that with a governmental policy that subsidizes or promotes water intensive crops is bound to lead to crop failures and cause food shortages. Furthermore, the inequitable distribution of water between landowners on unwarranted grounds negatively impacts agrarian production. Such activities as diverting water channels to influential landholders also engender water shortages and hindrances in cultivating crops.¹³⁹

CONCLUSION

Legally speaking, Pakistan has numerous international and domestic legal obligations to provide its people with an adequate supply of clean uncontaminated water for many purposes. Some of these uses are considered fundamental human rights. In supporting these obligations, the country's superior judiciary has examined the right to water and held its deprivation to be a violation of the fundamental right to life, which is guaranteed under the constitution. Yet water emancipation is on the decline in Pakistan. In practice, the overwhelming majority of the people are deprived of this essential human right or resource.

The reasons why the state continues to fail miserably in meeting its water-based obligations are multifaceted. The main reasons include corrupt and incompetent governmental functionaries, a lack of accountability and transparency of water-based regulatory authorities, systematic organizational deficiencies within the regulatory framework, and no substantive coordination among the relevant departments. In addition, there are insufficient monetary and non-monetary resources, including human capital and technical expertise. 140 Other reasons include

distrust and discord between the federal and provincial governments, the unwarranted intrusion of international donor agencies (e.g., the International Monetary Fund and the World Bank), the lack of public discourse and debate, the presence of a centralized water policy formation that does not engage with or incorporate input from vested stakeholders (e.g., grassroots organizations, civic society groups, and national and international non-governmental organizations), and the government's desire at all levels to achieve short-term solutions rather than institute measures designed to achieve a long-term resolution of the problem. Unfortunately, all of these deficiencies point to the fact that it will be extremely difficult, for Pakistan to meet the targets set out by the Millennium Development Goals as regards the human right to water. Though difficult, this goal is not insurmountable. With the requisite political will and initiative, the Pakistani government can develop a strategy to overcome the grave water crisis it currently faces.

Policy Recommendations

In order to effectively promote the human right to water in Pakistan, a range of stakeholders including the federal government, provincial governments, international organizations, and civil society groups have to institute the following policies and measures:

• Following the transference of power to the provinces and municipal governments in Pakistan, the relevant local and provincial government bodies need to be directly supported with funding and technical resources in order to increase efficiency and the effective implementation of water policy. They need to be provided with technical expertise by international organizations. Provincial government staff must be adequately trained to perform their duties. In this regard, international support would be quintessential. The role and function of all administrative bodies must be outlined and evident to their public functionaries. Furthermore, in order to ensure accountability and transparency, these

- bodies must be monitored for effective performance by independent organizations that can certify their performance.
- Increased transparency, and collaboration between and accountability of regulatory bodies and private companies involved in the provision of water, is necessary for the protection of water rights and for ensuring sustainability of water resources. New legislation should create additional bodies similar to the Water Services Regulation Authority 'OFWAT',¹⁴¹ and the Consumer Council for Water.¹⁴²
 - Rampant corruption that hinders administrative functioning needs to be addressed by holding public functionaries accountable for malfeasance. Criminal sanctions should be meted out and enforced. Existing domestic laws in Pakistan can be effectively utilized to deal with corruption and misconduct of public officials. There are three main sets of federal laws dealing with corruption. These include The Pakistan Penal Code (Article 161-165),143 The Prevention of Corruption Act (PCA) 1947,144 and the National Accountability Ordinance (NAO) 1999.145 According to these laws, corrupt public officers can be punished with severe sanctions including the possession of their property, imposition of heavy fines, and imprisonment up to several years. Two federal agencies have also been established to counter corruption. These include the Federal Investigation Agency, which operates under the Federal Investigation Agency Act 1974¹⁴⁶ and the National Accountability Bureau, which operates under the NAO.¹⁴⁷ The principle function of these agencies is to launch investigations into cases of corruption. These agencies have the power to arrest and question any accused officer. Moreover, FIA and NAB can also take measures such as freezing the assets and temporarily seizing the property of such an officer.148

Provincial governments have also passed similar legislation. For example, the Punjab Government passed The Punjab Anti-Corruption Establishment Ordinance in 1961 to establish a specialized agency

charged with the investigation of cases of corruption and misconduct by public servants in Punjab.¹⁴⁹

- Water projects have often been poorly developed, resulting in their unsustainability and lack of capacity.¹⁵⁰ In order to rectify this trend, policymakers, planners, and developers of new water projects must carefully analyze all previous projects on water supply and management. Deficiencies and inadequacies must be comprehensively examined and comparisons will need to be drawn with similar projects in other countries. In this regard, special attention should be paid to the experience of the water and sanitation agencies.
- To develop sustainable solutions to water problems in Pakistan, the government must devise a holistic plan with assistance from bodies like the Pakistan Council of Research in Water Resources and in collaboration with international bodies working towards the promotion of water rights. Examples of small-scale projects carried out in other developing countries should be carefully examined, to see whether they would be workable in the Pakistani environment.¹⁵¹

APPENDIX I

Historical Overview of the Human Right to Water

The right to water has not achieved the status of customary international law.¹⁵² Moreover, foundational international treaties and declarations do not explicitly mention it as a fundamental human right. Proponents of the human right to water argue that because this right is so fundamental and apparent, it was unnecessary to explicitly enumerate its existence and protection in such documents as the Universal Declaration of Human Rights (UDHR).¹⁵³ According to this view, this right's existence can be assumed and substantiated by the fact that other lesser rights and goals are listed in major treaties

and documents, the realization of which is completely dependent upon the provision of the right to water.¹⁵⁴

The idea of the human right to an adequate quantity and quality of drinking water was explicitly introduced in 1977 at the Mar Del Plata Conference held in Argentina. The first human rights treaty to explicitly recognize this right was the 1979 Convention for the Elimination of All Forms of Discrimination against Women (CEDAW). Subsequently, the Convention on the Rights of the Child (CRC) explicitly recognized the right of children to clean drinking water. Unfortunately, explicit reference to the right of water is limited solely to these two thematic human rights treaties, which seek to protect particular vulnerable groups in society. 158

The United Nations' ESCR Committee adopted General Comment No. 14 in 2000, thereby linking the enumerated right of health with the right to "access to safe and potable water." The committee further enumerated that state's obligations included refraining from polluting water resources. The right to water was further established under General Comment No. 15, 161 where the committee indicated that water was "one of the most fundamental conditions for survival" and linked water rights to other fundamental rights, including the right to life, food, housing, and adequate standard of living. 163

Recently, numerous international conferences and declarations have either explicitly or implicitly recognized the right of access to water. Prominent ones include the Declaration on the Right of Development, 164 the 1992 Dublin Statement on Water and Sustainable Development, the 2000 Ministerial Declaration of the Second Water Conference, and the 2005 Millennium Project commissioned by the Secretary General of the United Nations.

The right to water is also protected under international humanitarian law. Depriving people of water and protecting water sources are most at issue. The Hague Resolutions, ¹⁶⁵ the Geneva Conventions, and customary international laws are often invoked. ¹⁶⁶ Specialized international agreements, such as the Prohibition of Military or

Any Other Hostile Use of Environmental Modification Techniques (ENMOD), which relate to protecting the environment under humanitarian law, include the right to protect water.¹⁶⁷

The incorporation of legal protection for the right to water is also witnessed in multilateral agreements related to water issues; however, these are not human rights treaties. One example of such a treaty is the 1997 United Nations Convention on Non-Navigational Uses of International Watercourses. Furthermore, numerous regional treaties have explicitly recognized not just the right to water but "healthy water" (quality fit for health) as a fundamental human right. For the right of the right of

ENDNOTES

- 1. Note, What Price for the Priceless?: Implementing the Justiciability of the Right to Water, 120 HARV. L. REV. 1067 (2007).
- 2. *Id*.
- 3. Lee-Yee Huang, *Not Just another Drop in the Human Rights Bucket: The Legal Significance of a Codified Human Right to Water*, 20 FLA. J. INT'L L. 353 (2008).
- 4. Erik B. Bluemel, *The Implications of Formulating a Human Right to Water,* 31 ECOLOGY L.Q. 957, 959 (2004).
- 5. Hamada Hamid. Privatization of Water in Water Poor Countries, (unpublished manuscript) (on file with author).
- 6. Bluemel, *supra* note 5, at 959.
- 7. Dawn News (March 2012) "World Water Day and Pakistan" Available online at: http://dawn.com/2012/03/22/world-water-day-and-pakistan-2/ [Accessed 08/06/2012]
- 8. Dawn News (December 2011) "No access to safe drinking water in Pakistan" Available online at http://dawn.com/2011/12/28/no-access-to-safe-drinking-water-in-pakistan/ [Accessed 08/06/2012]
- 9. See supra note 7.
- 10. The Nation (April 2012) "Only 48pc Pakistanis have access to safe sanitation: WHO" Available online at http://www.nation.com.pk/pakistan-news-newspaper-daily-english-online/karachi/21-Apr-2012/only-48pc-pakistanis-have-access-to-safe-sanitation-who [Accessed 07/06/2012]
- 11. The Economist (February 2012) "Going with the flow" Available online http://www.economist.com/node/21546883 [Accessed 07/06/2012]
- 12. The Nation Pak among 17 countries facing water shortage. Available online at: http://www.nation.com.pk/pakistannews-newspaper-daily-english-online/karachi/25-Sep-2009/

Pak-among-17-countries-facing-water-shortage [Accessed 01/03/2012].

- 13. See "Report on Technical Assessment of Water Supply Schemes" Pakistan Council of Research in Water Sources, pp. 41-42. Available online at: http://www.pcrwr.gov.pk/Publications/Final%20Punjab%20Report%20Volume-I%20%2823-11-2011%29.pdf [Accessed 03/01/2012].
- 14. Id. and see supra note 3.
- 15. *Id.*
- 16. For a detailed discussion about the cost and benefits for privatizing water to promote human rights see, Fitzmaurice Malgosia, *Symposium: Environmental Protection and Human Rights in the New Millennium: Perspectives, Challenges, and Opportunities.* 18 FORDHAM ENVTL. L. REV. 537 (2007).
- 17. "Full cost recovery means that the state or private water supplier should be able to recover the full costs of supplying water to all users." *Id.* at 964.
- 18. Bluemel, supra note 5, at 965.
- 19. See infra note 15, at 70.
- 20. See World Bank Report. (2005). "Chapter IV-WHAT NEEDS TO BE DONE", Pakistan Country Water Resources Assistance Strategy Water Economy: Running Dry. Available online at: (http://siteresources.worldbank.org/PAKISTANEXTN/Resources/PWCAS-Full.pdf).[Accessed 29/03/2012].
- 21. See generally The Nation (November 2011) "Wapda workers rally hits WB, IMF policies". Available online at: (http://www.nation.com.pk/pakistan-news-newspaper-daily-english-online/lahore/02-Nov-2011/Wapda-workers-rally-hits-WB-IMF-policies) [Accessed 25/05/2012] and Dawn News. (April 2012) "No need of rental power projects: Wapda union" Available online at: (http://dawn.com/2012/04/19/no-need-of-rental-power-projects-wapda-union) [Accessed 20/05/12]
- 22. Dawn News. (March 2012). "65 pc electricity deficit leads to 16-hour outages." Available online at: (http://www.dawn.com/2012/03/20/65pc-electricity-deficit-leads-to-16-hour-outages.html)[Accessed 30/03/2012].
- 23. Dawn News. (July 2008) "Inefficiency blamed for nagging power shortage" Available online at: (http://archives.dawn.com/2008/07/21/nat17.html) [Accessed 21/05/2012]
- 24. Dawn News (July 2011). "Haphazard mix" of Pakistan's energy bureaucracy". Available online at: (http://dawn.com/2011/07/06/secret-us-cables-accessed-by-dawn-through-wikileaks-us-examined-haphazard-mix-of-pakistans-energy-bureaucracy/) [Accessed 21/05/2012].
- 25. Dawn News. (Dec 2011). "Privatisation of power sector: President urged to honour commitment". Available online at: (http://www.dawn.com/2011/12/28/privatisation-of-power-sector-president-urged-to-honour-commitment.html) [Accessed 30/03/2012].
- 26. The World Bank Group. *Note 115. Water Privatization and Regulation in England and Wales.* (May 1997). Available online at: (http://rru.worldbank.org/documents/publicpolicyjournal/115vdbrg.pdf) [Accessed 30/03/2012].
- 27. Naren Prasad. *Privatisation Results: Private Sector Participation in Water Services After 15 Years.* Development Policy Review, 24 (6): 669-692(2006).

28. See generally Erik J. Woodhouse, Note, The "Guerra del Agua" and the Cochabamba Concession: Social Risk and Foreign Direct Investment in Public Infrastructure, 39 STAN. J. INT'L L. 295 (2003); Andrew Nickson & Claudia Vargas, The Limitations of Water Regulation: The Failure of the Cochabamba Concession in Bolivia, 21 BULL. of Latin AM. RES. 128 (2002).

29. See supra note 5, at 1.

30. Id. at 2.

31. Id.

32. The committee is a body of independent experts in charge of monitoring the implementation of the International Covenant on Economic, Social and Cultural Rights and thus examines a series of issues such as provision of social security, adequate housing, food and clothing and the protection and assistance of families and workers as well as water rights. The Committee has not explicitly declared the privatization of water to be a violation of the human right to it. Incidentally, a report on the right to water published by the Office of the High Commissioner for Human Rights (OHCHR), has declared that states have an obligation to undertake all necessary legislation, which preclude third parties from engaging in any activity that hinders people from safe access to affordable and adequate amounts of water. However, this report too, remains ambiguous on the issue of privatization and does not establish it as an automatic abrogation of state's duty to ensure the safe and affordable access to clean water for all citizens. The ambivalence in the stance of both CESCR and OHCHR is understandable. The Millennium Development Goal of halving the number of people without access to safe and clean water by 2015 is an ambitious target and as such requires great amounts of investment. Governments are increasingly looking towards private companies for such funding. Declaring privatization as a violation of the human right to water is thus considered unrealistic. UN General Assembly, International Covenant on Economic, Social and Cultural Rights, 16 December 1966, United Nations, Treaty Series, vol. 993, p. 3, available at: http:// www.unhcr.org/refworld/docid/3ae6b36c0.html [accessed 20 May 2012]; Fitzmaurice, supra note at 552; UN Office of the High Commissioner for Human Rights, Fact Sheet No. 35, The Right to Water, August 2010, No.35, available at: http://www.unhcr.org/refworld/docid/4ca45fed2.html [accessed 22 May 2012]; Hamada Hamid. Privatization of Water in Water Poor Countries, (unpublished manuscript)

33. Huang, supra note 4, at 359.

34. Id. at 361.

35. Id. at 359.

36. Huang, *supra* note 3, at 359.

37. First Optional Protocol to the International Covenant on Civil and Political Rights, art. 1, Dec. 16, 1966, 999 U.N.T.S. 302 [hereinafter First Optional Protocol]; American Convention on Human Rights, art.44, Nov. 22, 1969, 1144 U.N.T.S. 144 [hereinafter AMCHR].

38. Leticia K. Nkonya. *SOCIOECONOMIC RIGHTS: EMPOWERMENT FOR GLOBAL JUSTICE: Realizing the Human Right to Water in Tanzania.* 17 HUM. RTS. BR. 25 (2010).

39. See Human Rights Watch "World Report 2012: Pakistan" Available online at: http://www.hrw.org/world-report-2012/world-report-2012-pakistan [Accessed 07/06/2012]

40. Note, *supra* note 2, at 1080.

41. INDIA CONST. art. 38. The Directive Principles provide that "the State shall strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of the national life."

42. *Id.* art. 37 ("The provisions contained in this Part shall not be enforceable by any court, but the principles therein laid down are nevertheless fundamental in the governance of the country and it shall be the duty of the State to apply these principles in making laws.").

43. See Attakoya Thangal v. Union of India (1990) 1 K.L.T. 583 ("the administrative agency cannot be permitted to function in such a manner as to make inroads, into the fundamental right under Art. 21. The right to life is much more than the right to animal existence and its attributes are many fold, as life itself. A prioritisation of human needs and a new value system has been recognized in these areas. The right to sweet water, and the right to free air, are attributes of the right to life, for, these are the basic elements which sustain life itself. ") See also A.P. Pollution Control Bd. II v. Prof. M.V. Nayudu, (2001) 2 S.C.C. 62, 69 (holding that the right of access to drinking water is fundamental to life, by creating a state duty under Article 21 to provide such access to its citizens); Vellore Citizens' Welfare Forum v. Union of India, (1996) 5 S.C.C. 647, 660 ("the constitutional and statutory provisions protect a person's right to fresh air, clean water and pollution-free environment, but the source of the right is the inalienable common law right of clean environment."). The Court has also articulated the idea that the right to life necessitates a right to a "healthy environment," making water pollution a justiciable issue. See, e.g., Kumar v. Bihar, (1991) 1 S.C.C. 598, 604 (holding that the right to life "includes the right to enjoyment of pollution-free water and air for full enjoyment of life").

44. Note, *supra* note 2, at 1079 n.51. *See also*, Jona Razzaque, Access to Environmental Justice: Role of the Judiciary in Bangladesh 1, 2 (unpublished manuscript), available at http://www.eng-consult.com/BEN/papers/Paper-jona.PDF.

45. See M.C. Mehta v. Union of India(1988) 1 S.C.C. 471. (The government was ordered by the apex court to improve the sewage system and stop throwing burnt corpses into the river Ganges); See Vellore Citizens' Welfare Forum v. Union of India (1996) 5 S.C.C. 647, (tanneries were violating citizens' rights by emptying untreated waste into local drinking water supplies and agricultural areas); M.C. Mehta v. State of Orissa, A.I.R. 1992 Ori. 225. (the court, after finding out that the government knew beforehand that sewage was mixing with river water and causing water-borne diseases, held that the state was obligated to stop and prevent the pollution to maintain wholesome water for consumption). See A.P. Pollution Control Bd. v. Prof. M.V. Nayudu, 2000 S.C.A.L.E. 354, P 3, (the court held that the right to access to drinking water is fundamental to life and that the state has a duty under Article 21 to provide clean drinking water to its citizens). In M.C. Mehta v. Union of India, (2004) 3 S.C.R. 128, PP 45-47, the supreme court recognized groundwater as a public asset with citizens having the right to the use of air, water, and earth as protected under Article 21 of the constitution. See also M.C. Mehta v. Kamal Nath, (1997) 1 S.C.C. 388

46. S. AFR. CONST. (1996) §§27("(1) Everyone has the right to have access to...b. sufficient food and water...(2) The state

must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights").

- 47. Note, supra note, at 1083; S. AFR. CONST. (1996) §§ 27(2).
- 48. Residents of Bon Vista Mansions v. Southern Metropolitan Local Council 2002 (6) BCLR 625 (W) (S. Afr.); See also Lindiwe Mazibuko & Others v. The City of Johannesburg & Others 2008 High Court of South Africa (Witwatersrand Local Division) Case No. 06/13865 P 3 (S. Afr.) [hereinafter Mazibuko]. (Prepayment water system was "unconstitutional and unlawful" and the city must "provide each applicant and other similarly placed residents of Phiri Township with . . . free basic water supply of 50 litres per person per day and . . . the option of a metered supply installed at the cost of the City of Johannesburg".) Id. at P 183. (City water policy also held to be discriminatory against women because of water cut off, women where the ones who were generally forced to travel long distance to obtain water). See Id. P 159.
- 49. See Constitutions of Gambia, Uganda, and Zambia. GAM. CONST. art. 216(4). UGANDA CONST., Nat'l Objectives and Directive Principles of State Policy XIV. ZAMBIA CONST. (Constitution Act 1991) art.112(d).
- 50. See, supra note 4, at 979
- 51. Id. at 981
- 52. See generally, supra note 2, at 1086.
- 53. Id. at 1088.
- 54. Id. at 1087.
- 55. See generally South Afirca v. Grootboom, 2000 (11) BCLR 1169 (CC)(S. Afr.).
- 56. See supra note 3 at 360
- 57. Id.
- 58. Id. at 359
- 59. See supra note 76
- 60. See supra note 78
- 61. See supra note 4, at 993
- 62. Id. at 994
- 63. Id. at 996
- 64. See supra note 82
- 65. See supra note 3 at 365
- 66. Id.at 366
- 67. Id.
- 68. Amy Hardberger, Whose Job is It Anyway?: Governmental Obligations Created by the Human Right to Water, 41 TEX. INT'L L. J. 533, 556 (2006)
- 69 See supra note 4 at 363
- 70. Pakistan ratified the Convention on the Rights of the Child on 12/12/90.
- 71. Pakistan ratified the Convention on the Elimination of All forms of Discrimination Against Women on 12/03/1996.
- 72. Pakistan ratified the International Covenant on Economic, Social and Cultural Rights on 17/04/2008; the International Covenant on Civil and Political Rights on 28/06/2010 and the United Nations Convention Against Torture on 3/06/2010.

- 73. See, for instance, Pakistan's reservation to Art. 6 which relates to the right to life. "The Islamic Republic of Pakistan declares that the provisions of Articles ... 6... shall be so applied to the extent that they are not repugnant to the provisions of the constitution of Pakistan and the sharia laws."
- 74. Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field. Geneva, 12 August 1949; Convention (II) for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea. Geneva, 12 August 1949; Convention (III) relative to the Treatment of Prisoners of War.Geneva, 12 August 1949. Convention (IV) relative to the Protection of Civilian Persons in Time of War. Geneva, 12 August 1949. Pakistan ratified these Conventions on 12.06.1951.
- 75. Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977. Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II), 8 June 1977.
- 76. PAKISTAN CONST. art. 9. "Security of person. -No person shall be deprived of life or liberty save in accordance with law."
- 77. PAKISTAN CONST. art. 14. "Inviolability of dignity of man, etc. –(1) The dignity of man and, subject to law, the privacy of home, shall be inviolable."
- 78. PAKISTAN CONST. art. 155. "Complaints as to interference with water supplies. –(1) If the interests of a Province, the Federal Capital or the Federally Administered Tribal Areas, or any of the inhabitants thereof, in water from any natural source of supply [or reservoir] have been or are likely to be affected prejudicially by- (a) any executive act or legislation taken or passed or proposed to be taken or passed, or (b) the failure of any authority to exercise any of its powers with respect to the use and distribution or control of water from that source...".
- 79. See, Pakistan Environmental Protection Act 1997, §§ xix-xxiv
- 80. See Art. 14. "Disposal of wastes and effluents. –(1) Effective arrangements shall be made in every factory for the disposal of wastes and effluents due to the manufacturing process carried on therein". See also, art. 20. "Drinking Water. –(1) In every factory effective arrangements shall be made to provide and maintain at suitable points conveniently situated for all workers employed therein a sufficient supply of whole-some drinking water.(2) All such points shall be legibly marked "Drinking Water" in a language understood by the majority of the workers and no such point shall be situated within twenty feet of any washing place, urinal or latrine, unless a shorter distance is approved in writing by the Chief Inspector."
- 81. Pakistan Penal Code Chapter XIV: OF OFFENCES AFFECTING THE PUBLIC HEALTH, SAFETY, CONVENIENCE, DECENCY AND MORALS 277. "Fouling water of public spring or reservoir: Whoever voluntarily corrupts or fouls the water of any public spring or reservoir, so as to render it less fit for the purpose for which it is ordinarily used, shall be punished with imprisonment of either description for a term which may extend to three months, or with fine which may extend to [one thousand five hundred rupees], or with both."
- 82. See Section 4 Functions of the Pakistan Council of Research in Water Resources Act 1 of 2007 Pakistan Council of

Research in Water Resources Act, 2007 – "...b) Design, develop and evaluate water conservation technologies for irrigation, drinking and industrial water... [a]dvise the government and submit the policies recommendations regarding water quality, development, management, conservation and utilisation of water resources... publish scientific papers, reports and periodicals as well as to arrange seminars, workshops and conferences on water related issues;...".

- 83. National Drinking Water Policy approved by the Federal Cabinet on 28 September 2009,
- 84. See National Drinking Water Policy 2009, Foreward.
- 85. Id. at § 2.
- 86. Id.
- 87. See supra note 88, § 6.12, "...(i) Pakistan Safe Drinking Water Act will be enacted to ensure compliance with the National Drinking Water Quality Standards...."
- 88. See supra note 87, § 4(iii); 6(m).
- 89. See generally supra note 87, § 6 Policy Measures.
- 90. See National Environment Policy, § 2.2(d).
- 91. Id. at Section 3.1. Water Supply and Management.
- 92. Ordinance IX OF 1978
- 93. See BALUCHISTAN GROUND WATER RIGHTS ADMINISTRATION ORDINANCE, 1978 ORDINANCE IX OF 1978. § 3 –Establishment and functions of Provincial Water Board.
- 94. See, Functions of WASA in Baluchistan as established under the BALUCHISTAN GROUND WATER RIGHTS ADMINISTRATION ORDINANCE, 1978 –ORDINANCE IX OF 1978 –"... Plan, design, construct, operate and maintain water supply, sewerage and sanitation system within the service area of the Water and Sanitation Authority to be established under Section 3 of this Ordinance... Monitor and control water resources in the Area, both surface and underground and issue licenses for abstraction of water from such resources in the Area in accordance with regulations made by the authority...."
- 95. Punjab Local Government Ordinance 2001.
- 96. See Punjab Local Government Ordinance, §.52.
- 97. *Id.* at § 54 Functions and Powers of the Tehsil Municipal Administration Punjab Local Government Ordinance (2001) "...(h) provide, manage, operate, maintain and improve the municipal *infra*structure and services, including- (i) water supply and control and development of water sources, other than systems maintained by the Union and Village Councils... (iv) sanitation and solid waste collection and sanitary disposal of solid, liquid, industrial and hospital wastes...."
- 98. *Id.*at Section 54-A-Functions and Powers of the Tehsil Municipal Administration.
- 99. Id. at Section 80 Functions of Union Nazim.
- 100. *Id.*at Section 96 Functions of Village Council and Neighbourhood Council— "...(a) develop and improve water supply sources; ... (d) take measures to prevent contamination of water...."
- 101. See supra note, 99, Fourth Schedule Part B, "...8. Discharging any dangerous chemical, inflammable, hazardous or offensive article in any drain, or sewer, public water course... 10. Supplying or marketing drinking water for human consumption in

any form, from any source which is contaminated or suspected to be dangerous to public health...."

- 102. See supra note 99, at Fourth Schedule Part D. 103. Id.
- 104. *Id.* at, Eighth Schedule "9. Obstructing or tampering with any main pipe, meter or any apparatus or appliance for the supply of water or sewerage system. Fine: Rs. 1,000/.... 28.Failure by the owner or occupier of any land or building to clean, repair, cover, fill up or drain off any private well, tank or other source of water supply, which is declared under this Ordinance to be injurious to health or offensive to the neighbourhood. Fine: Rs. 1,000/".
- 105. See, supra note 99, art. 52. "Entrustment of certain decentralised offices to Tehsil Municipal Administration. Provided further that Water and Sanitation Agencies coming under the control of District Government under sub-section (3) of section 182 functioning in a tehsil shall further be decentralized to the concerned Tehsil Municipal Administration: Provided also that Water and Sanitation Agency or similar agencies functioning in a City District and coming under the control of City District under sub-section (3) of section 182 may further be decentralised to the City District Administration or, according to requirements of service delivery, may be decentralised to towns in a city district."
- 106. The SBNP Local Government Ordinance 2001 S.2(xxii) 'municipal services' include, but not limited to intra-city or intra or inter-town or tehsil network of water supply, sanitation, conservancy, removal and disposal of sullage, refuse, garbage, sewer or storm water, solid or liquid waste, drainage, public toilets...."
- 107. See supra note 99, art. 53. "Structure of the Tehsil Municipal Administration.-... (3)(ii) Tehsil Officer (Infrastructure and Services) who shall be responsible for water, sewerage, drainage, sanitation...." art. 76. "Functions of the Union Administration.(j) to provide and maintain public sources of drinking water, including wells, water pumps, tanks, ponds and other works for the supply of water..." art. 94. "Water supply. (1) The concerned local government shall provide or cause to be provided to its local area a supply of wholesome water sufficient for public and private purposes." art 95. "Private source of water supply. (1) All private sources of water supply within the local area of a concerned local government shall be subject to control, regulation and inspection by the local government."
- 108. See Shehla Zia infra note 115 at para. 14 (Saleem Akhtar J, acknowledging the impact of U.S. jurisprudence concerning the right to life on south asian case law and citing the seminal U.S case, Munn v. Illinois, (94 U.S. 113 (1877), ("By the term "life,"...something more is meant than mere animal existence. The inhibition against its deprivation extends to all those limbs and faculties by which life is enjoyed. ... [t]he deprivation not only of life, but of whatever God has given to everyone with life for its growth and enjoyment, is prohibited)."; see also Griswold v. Connecticut 381 U.S. 479, 485 (1965) ("specific guarantees in the Bill of Rights have penumbras, formed by emanations from those guarantees that help give them life and substance)."
- 109. PAKISTAN CONST. supranote 79.
- 110. PAKISTAN CONST. supranote 80.

- 111. See Shehla Zia and Others v. WAPDA (PLD 1994 SC 693).
- 112. See Benazir Bhutto v. President of Pakistan (PLD 1998 Supreme Court 388).

113. Id.

114. Id.

- 115. Mrs. Anjum Irfan v. Lahore Development Authority through Director-General and Others (PLD 2002 Lahore 555).
- 116. PAKISTAN CONST. supranote 80.
- 117. General Secretary, West Pakistan Salt Miners Labour Union (CBA) Khewra, Jhelum v. The Director, Industries and Mineral Development, Punjab, Lahore (1994 SCMR 2061).
- 118. Ch, Riaz Ahmad Yazdani v.The Federation of Pakistan and 8 others (1990 CLC 1406).
- 119. Abdul Latif and 2 others v. Additional Sessions Judge, Sahiwal (2001 CLC 1139).
- 120. See Justice (R) Fazal Karim. 2006. "Interpretation of Fundamental Rights," *Judicial Review of Public Actions*. Pakistan Law House: Karachi.
- 121. See generally, The Summit on the Millennium Development Goals 20-22 September 2010. Available online at: http://www.un.org/millenniumgoals/ (concluded with the adoption of a global action plan to achieve the eight anti-poverty goals by their 2015 target date and the announcement of major new commitments for women's and children's health and other initiatives against poverty, hunger and disease.)
- 122. Out of the Rs. 4 billion received by the Punjab government, Rs. 1.8 billions was given to contractors. However, the remaining Rs. 2.8 billion was never paid further to the contractors in disregard of their contractual rights.
- 123. Data obtained through the Environment Protection Department.
- 124. These notices were sent to the Managing Director ("MD") of WASA, the Lahore Waste Management Company, the District Coordination Officer ("DCO") of Lahore, District Officer of the EPD ("DO-Environment"), the Director General of the Lahore Development Authority ("LDA") and the Secretary of the Irrigation Department. The TMO's of Allama Iqbal Town, Wagha Town and Aziz Bhatti Town were also informed.
- 125. The EPD is a regulatory authority and according to section 16 of Pakistan Environment Protection Act 1997, the EPD issues an Environment Protection Order (EPO) to the concerned authority allowing 30 days for preventive measure. In case of no compliance, the EPD forms a tribunal, which examines reports and samples before taking a decision which the concerned authority has to comply with.
- 126. Food and Agriculture Organization. 2002. The State of Food Insecurity in the World 2001. Rome P 10.
- 127. Food and Agriculture Organization. 2003. *The State of Food Insecurity in the World 2003*. Rome P 12.
- 128. Paper 667. MEETING FUTURE FOOD DEMANDS OF PAKISTAN UNDER SCARCE WATER SITUATIONS. *Pakistan Engineering Congress, 70th Annual Session Proceedings 2007*, 238, 239.
- 129. Alam, M., and Bhutta, M. N., (1996). Availability of water in Pakistan during 21st century. Proceedings of the International Conference on Evapotranspiration and Irrigation Scheduling,

November 3-6, 1996, San Antonio, Texas, USA.

130. FAO, supra note 134, at 9.

- 131. PAKISTAN CONST. art.38 "Promotion of social and economic well-being of the people. –The State shall– ...(d) provide basic necessities of life, such as food, ...for all such citizens, irrespective of sex, caste, creed or race, as are permanently or temporarily unable to earn their livelihood on account of infirmity, sickness or unemployment;"
- 132. ICESCR, *supra* note 33, Art. 11 (2) –"The States Parties ... shall take, individually and through international co-operation, the measures, including specific programmes, which are needed: (a) To improve methods of production, conservation and distribution of food by making full use of technical and scientific knowledge, by disseminating knowledge of the principles of nutrition and by developing or reforming agrarian systems in such a way as to achieve the most efficient development and utilization of natural resources; (b) Taking into account the problems of both food-importing and food-exporting countries, to ensure an equitable distribution of world food supplies in relation to need."
- 133. See Pure Food Ordinance 1960 Section 2.
- 134. See The Cantonment Pure Food Act 1966- Explanation I.
- 135. "Cabinet meeting approves Food Authority Act" –*The Express Tribune*, Available Online at:(http://tribune.com.pk/story/132658/cabinet-meeting-approves-food-authority-act/) –[Accessed on 13/05/2011].
- 136. See Punjab Food Safety And Standards Act, 2011 Section 2(f) "Food" means any article used as food or drink for human consumption other than drugs, and includes—...Water in any form, including ice, intended for human consumption or for use in the composition or preparation of food: Provided that the Government may declare, by notification in the Official Gazette, any other article as food for the purposes of this Act."
- 137. Pakistan to face 25 MAF water shortage: IRSA *Pak Observer* Available online at:(http://pakobserver.net/201103/10/detailnews.asp?id=80250) –[Accessed on 13/05/2011].
- 138. Water Management Practices in Pakistan Issues & Options for Productivity Enhancement-Round table *Discussion on Agriculture and Water in Pakistan, 8-9th March; 2011 –* Available online. at: (http://siteresources.worldbank.org/PAKISTANEXTN/Resources/WMPracticesinPakistan.pdf)-[Accessed on 13/05/2011].
- 139. Shortage of water at tail-end may hit cotton crop: SCA—*Dawn News*, Available online at: (http://www.dawn.com/2011/04/16/shortage-of-water-at-tail-end-may-hit-cotton-crop-sca.html)-[Accessed on 14/05/2011].
- 140. For instance under the CDWA project, Pakistan sought to import rather than develop the technology itself. This decision is strong evidence of Pakistan's lack of expertise in developing and maintaining a sustainable water supply.
- 141. Source: http://www.ofwat.gov.uk/ [Accessed 02/03/2012].
- 142. Established under SS 34-45 of Water Act 2003. Available online at: http://www.legislation.gov.uk/ukpga/2003/37/pdfs/ukpga_20030037_en.pdf. [Accessed 02/03/2012].
- 143. See Pakistan Penal Code IX: Of Offences By Or Relating To Public Servants.
- 144. See Prevention of Corruption Act 1947

- 145. See National Accountability Ordinance 1999
- 146. See Federal Investigation Agency Act 1974
- 147. See supra note 166
- 148. See supra notes 165 and 166
- 149. See The Punjab Anti-Corruption Establishment Ordinance, 1961
- 150. Dawn News (March 2007) "Lack of Resources to Affect Water Projects" Available online at: http://archives.dawn.com/2007/03/09/nat26.htm [Accessed 07/06/2012]
- 151. Catholic Relief Services Guidelines for the Development of Small-Scale Rural Water Supply and Sanitation Projects in East Africa. Available online at: http://www.ehproject.org/PDF/ehkm/crs-usaid_watsan.pdf [Accessed 02/03/2012].
- 152. Amy Hardberger, *Life, Liberty and the Pursuit of Water: Evaluating Water as Human Right and the Duties and Obligations it Creates*, 4 NW. U. J. INT'L HUM. RTS. 331, 345 (2005).
- 153. Article 25 of the UDHR is the most relevant provision on the basis of which the right to water can be implied. It states that "everyone has the right to a standard of living adequate for the health and well-being of himself and his family, including food...."
- 154. Amy Hardberger, supra note 24, at 345.
- 155. Report on the United Nations Water Conference, Mar del Plata, G.A. Res. 32/158, U.N. GAOR, 107th Plen. Mtg., U.N. Doc. E.77.II.A.12 (1977).
- 156. States Parties shall ensure to [rural] women the right... to enjoy adequate living conditions, particularly in relation to ... water supply." See Convention on the Elimination of All Forms of Discrimination against Women,G.A. Res. 34/180, at art. 14 (2)(h), U.N. GAOR, 34th Sess., Supp. No. 46, U.N. Doc.A/34/46 (1979) [hereinafter CEDAW].
- 157. Convention on the Rights of the Child, G.A. Res. 44/25 annex, at art. 24(2)(c), U.N. GAOR, 44th Sess., Supp. No. 49, U.N. Doc.A/44/49 (1989).
- 158. Harberger, supra note 24, at 347.
- 159. U.N. Comm. on Economic, Social, and Cultural Rights, The Right to the Highest Attainable Standard of Health: General Comment No. 14: art. 12 of the International Covenant on Economic, Social, and Cultural Rights, § 4, U.N. Doc. E/C.12/2000/4 (2000).
- 160. Id. at §§ 30, 34.
- 161. See U.N. Comm. on Economic, Social, and Cultural Rights, Substantive Issues Arising in the Implementation of the International Covenant on Economic, Social and Cultural Rights: General Comment No. 15: The right to water: arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights, P 1, U.N. Doc. E/C.12/2002/11 (Nov. 26, 2002) (stating that the "depletion and unequal distribution of water is exacerbating existing poverty") [hereinafter General Comment 15].
- 162. Id. at 3.
- 163. Id. at 1-2.
- 164. Declaration on the Right of Development, G.A. Res. 44/128 (1986), art. 8.
- 165. See Convention Respecting the Laws and Customs of War

- on Land art. 23 (a), annexed to Convention [No. IV] Respecting the Laws and Customs of War on Land, Oct. 18, 1907, 37 Stat. 2277. (Prohibiting use of poison and the conventions general scope "allows its application to the purposeful contamination of water sources") Hardberger, *supra* note 23, at 552.
- 166. Hardberger, supra note 23, at 549.
- 167. Convention of the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, May 18, 1977, 31 U.S.T. 333, T.I.A.S. No. 9614, [hereinafter ENMOD].
- 168. Fitzmaurice, supra note 9, at 544.
- 169. Id. at 544.

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