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Conflict of Interest in Exploitation and Utilisation of Transboundary Natural Resources on Lake Victoria

Edmond M. Were
Kisii University, wearywere@gmail.com

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Introduction

The management and utilisation of transboundary shared natural resources have been pursued within the context of global principles establishing the guidelines for the behavior and practices of states and non-state actors. The utilization of the natural resources of Lake Victoria as regional commons is, however, pursued at the behest of vested local and national interests including those of external actors based in the Eastern Africa region, Americas, Europe and Asia. The combined actions of local and external actors have impacted negatively on the size and quality of the stock of the natural resources of the Lake. National interests thus tend to have an overbearing influence on the magnitude of resource exploitation and to a great extent are largely driven by the ever-growing global and regional forces of demand for the resources of the lake. Lake Victoria thus suffers not only from a conspiracy of convergence and divergence but also conflicting national interests and regional demand for its resources.

This paper locates transboundary natural resource management in a political and international relations perspective. To this end, it is buttressed by political idealism and political realism (also known as *realpolitik*). This is more apt because at the base of the translation of the principles of transboundary natural resource management are the state, ideology and power asymmetry in the control and exploitation of the resources of Lake Victoria. The argumentations are derived from a critical study of state actions and intentions on the portions of Lake Victoria physically and politically belonging to Uganda and Kenya. Although the exercise of soft power by partner states sharing Lake Victoria has been acknowledged to influence the management and exploitation of the Lake's resources, coercive tactics have tended to impact greatly on entry and exit of non-state actors involved in the exploitation and utilisation of the resources of the lake. Resultantly, containment strategies and tactics have been relied on over time and resulted into incessant disputes between Uganda and Kenya and human and property rights violations on the lake. The behavior of the partner states can thus be aptly explained from political idealist and realist perspectives.

The bigger picture points to attempts by the states to adhere to global principles guiding transboundary natural resource management but whose realisation is heavily negated by nationalist demands and expectations.

Methods and Conceptual Framework

The overexploitation of the natural resources of Lake Victoria can be explained from a multidimensional perspective. Indeed biological and frame surveys have been done to establish environmental impacts of unhindered exploitation, especially of fish resources, including the diminution or extinction of certain fish species from the lake.¹ These explanations point to the fact that fish resources, in particular, are becoming scarcer - and the impact on the livelihoods of the residents of Lake Victoria Basin becoming graver. Notwithstanding this, a peace and conflict or an international relations perspective brings to the fore a power relations dimension that has been lacking in the analysis of the utilisation of the natural resources of Lake Victoria.

The argumentations in this paper are largely influenced by both political idealist and realist debate. The two perspectives of power relations theory illuminate on the behavior of the state in the process of, not only, exploitation but also the comprehensive management of transboundary natural resources especially on Lake Victoria. In the first instance, political idealism has in retrospect been perceived as “the spirit which impels an individual or group of individuals to a loftier standard of conduct than that which ordinarily prevails around him or them”.² At the interstate level, the Earl of Birkenhead (1923) argued that this spirit would carry that kind of ethical progress, standards of purity and morality, and that “every reasonable statesman must desire that the relationship between States shall be increasingly regulated in accordance with the highest attainable standards of conscientious conduct”.³ Conflict would thus be unlikely to arise.

¹ Refer to Odada, E.O., Mitigation of Environmental Problems in Lake Victoria, East Africa – Causal Chain and Policy Options Analyses, *Ambio* Vol.33 No.1(2004).

² Earl of Birkenhead, “Idealism in International Politics”. A Rectorial Address Delivered on November 3rd, 1923, (Peterborough: Glasgow University, 1923), pp 1-11.

³ *Ibid.*

Political idealism traces its genealogy through such classical writers as Dante, Grotius, and Kant including later writers such as Claude, Falk, Jacobson and Mendlovitz. Modern political leaders in this school of thought include Woodrow Wilson, Dag Hammaskjold and Lester Pearson who were instrumental in raising the political idealism pedestal to embrace a determined “escape from an obsessive fixation on power” and that “the international system is not inevitably rigid and corrupt”⁴.

Argumentation on political idealism provides a podium from which we can strategically locate the exploitation, utilization and management of transboundary natural resources in any regional or global context. The unencumbered exploitation and utilization of the global or regional commons are a definite pointer to unsustainable development and laden with risks to human livelihoods. Idealism provides a standard which states ought to use to manage their shared natural resources. This is discerned in the global protocols, treaties, conventions and declarations entered into by states overtime and which comprise a significant part of customary international law.⁵

The political idealist perspective of cooperation in the management of shared natural resources is discernible in the Lake Victoria protocols especially those establishing the Lake Victoria Basin Commission (LVBC) and the Lake Victoria Fisheries Organisation (LVFO) as well as the research-focused regional fisheries organizations. The joint effort of riparian states is deliberately pooled in the realization that sustainable and research-based conservation and utilisation of shared natural resource assures common benefit. This is basically in recognition that millions of households belonging to the three riparian states depend, for their socio-economic survival and prosperity, on Lake Victoria. The idealist influence on shared natural resource management and utilisation is thus basically meant to facilitate integration of riparian states with a view to promoting sustainability and thus positively impact on human security. Indeed, human security and livelihoods along the

⁴ Balleck, Barry and Beer Francis (1994). “Realism/Idealism Texts. Psychometry and Semantics”. *Peace Psychology Review* 1, 1 (Spring:1994): 38-44

⁵ Eckstein, G.E., *Rethinking Transboundary Ground Water Resource Management: A Local Approach Along US-Mexico Border*, (Fortworth:Texas Wesleyan University, 2013). See also Brels, S.; Coates, D.; and Lourels, T., *Transboundary Water Resources Management: The Role of International Watercourse Agreements in the Implementation of the CBD*. CBD Technical Series No. 40. (Montreal: Secretariat of the Convention of Diversity, 2008)

shores of Lake Victoria are becoming increasingly precarious and requiring a shift in the paradigm of thought and practice by focusing on building alliances and synergy among the growing number of actors and associated processes in the exploitation and utilisation of the resources of Lake Victoria.

While dismissing the circumstantial efficacy of political idealism and in explaining the “ceaseless process of evolution and adjustment” of human societies, however, the Rt. Hon. the Earl of Birkenhead (1923) retrospectively asserted that

This process has been sometimes pacific, but more often it has resulted from warlike disturbance. The strength of different nations, measured in terms of arms, varies from century to century. The world continues to offer glittering prizes to those who have stout hearts and sharp swords; it is, therefore, extremely improbable that the experience of future ages will differ in any material respect from that which has happened since the twilight of human race. It is for us, therefore, who in our history have proved ourselves a martial, rather than a military people to abstain, as has been our habit, from provocation; but to maintain in our own hand the adequate means for our own protection, and, so equipped, to march with heads erect and bright eyes along the road to our Imperial destiny.⁶

In retrospection, argumentations on political realism have reverberated with conceptions of state sovereignty, use of force, patriotism, and defense of the state. These conceptions still form a central part of the current narrative on political realism. Indeed, writings on political realism as a driving force in the survival of states and their peoples are centuries old, especially, if traced to the writings of Thucydides, Machiavelli and Hobbes and later through Morgenthau, Keohane and Waltz.⁷ The basic assumptions of realism are that states are the key units of action in interstate relations; they seek power either as an end or as a means to other ends and behave in ways that are rational and, therefore, comprehensible to outsiders in rational terms.⁸ It also posits that the international system is essentially anarchic and the survivalist instincts of the state in such a system portend the use of power and force and

⁶ Earl of Birkenhead, *Ibid.*

⁷ Frieden, J.A. and Lake, D.A., *International Political Economy: Perspectives on Global Power and Wealth*, (London: Routledge, 2003)

⁸ Canestaro, Nathan, “Realism and Transnationalism. Competing Visions for International Security”, *Boston University International Law Journal*, Vol.25 (2007), pp. 113-162

maintenance of security in its egoistic and nationalist interest.⁹ Competition rather than cooperation between states is, therefore, at the center of interstate relations.

According to Canestaro (2007), states “do not subordinate their interests to the interests of other states or to those of the so-called international community and pursue other goals such as economic wellbeing only so long as they do not interfere with their security interest.”¹⁰ He, nevertheless, asserts that international norms and institutions only marginally affect the prospects for cooperation. In cases where states do enter into cooperative agreements, fears of cheating and exploitation limit their ability to commit fully. He further asserts that each participant measures its gains in comparison to those of its partners to ensure that the other is not benefitting disproportionately, and may abandon the effort or limit its involvement if potential rivals are receiving benefits far in excess of its own.

Political realistic thinking similarly reverberates in the Lake Victoria protocols, especially the Lake Victoria Fisheries Organisation. Notwithstanding the vision the protocols had in jointly managing shared natural resources of Lake Victoria, state-centric narratives are implanted in the body of the protocols especially the integration and the need to utilize national institutions in realizing the regional vision and the utilisation of *national* resources for *national* benefit. This has elevated the status of nationalist leaning natural resource management policies hence putting in doubt the import of regional integration.¹¹ In effect the regional integration agenda for transboundary natural resource management is not actualized and neither is it felt at the household level.

Idealism and realism thus inform the management, exploitation and utilisation of shared resources at the most basic level. Whereas it is feasible to manage the Lake Victoria natural resources for the common good, nationalistic stances among the member states sharing Lake Victoria tend to divert the common aspirations enshrined in the Protocol Establishing the Lake Victoria Fisheries Organization to the more basic survivalist socio-economic interest.

⁹ *Ibid.*

¹⁰ *Ibid.*

¹¹ See Republic of Uganda, National Fisheries Policy (Entebbe: Ministry of Agriculture and Animal Husbandry, 2004), Republic of Kenya Fisheries Act. Laws of Kenya (Nairobi: Government Printer, 1991)

The protocol derives its life from the global principles governing the management of shared resources. Within the foregoing conceptual analysis, this paper partly relied on selected primary data collected between 2012 and 2013 on selected Beach Management Units (BMU) on the Kenya and Uganda mainland shores and selected islands of Lake Victoria and secondary data from the regional institutions involved in the management of Lake Victoria natural resources. The study focused on purposively selected BMUs that have a direct road linkage to the major urban areas in the Lake Basin region especially through the Kenyan town of Busia and Kisumu and the Ugandan town of Jinja. This link gave the selected BMU an international perspective in terms facilitating access by the local and international actors to the natural resources of the Lake. In particular, the road linkage to the Lake is enabled principally by Marenga, Sinyenye, Usenge, Sori and Mugabo BMUs in Kenya and Maninga BMU on Sigulu Island in the Ugandan Lake Victoria waters. The gazetted BMUs on the shores of the lake have structured membership of at least 30 boats and leadership emanating from the users of the landing beach.

Global Agenda for Transboundary Natural resource Management

The global agenda and interest in transboundary natural resource management has been equated to the pursuit of common interest or the interests of humanity within the environmental realm.¹² This is discernible in the nature of the forces of globalization fronted by morally inclined institutions pushing an idealist agenda on the global scene. The United Nations Environmental Programme has been at the forefront of such institutions. Notwithstanding the various interpretations of globalisation, this paper adopts its conceptualisation as *universalisation* implying the harmonization of ideas, values and experiences.¹³

¹² Ellen Hey, “Global Environmental Law: Common Interests and the Reconstitution of Public Space”, *Iusturn Aequurn Salutare* v 2009/1, 41-57.

¹³ Globalization has undergone various interpretations: *internationalization* denoting cross-border relations between countries especially in the growth of international exchange and interdependence; *liberalization* denoting the removal of state restrictions on movement between countries; *universalization* denoting spread of ideas and experiences to people at all corners of the earth so that aspirations and experiences around the world become harmonized; *westernization* or *modernization* denoting the spread of the social structures of modernity all over the world thus destroying cultures and local self-determination in the process; and *detritorialization* denoting the reconfiguration of geography so that social space is no longer wholly mapped in terms of territorial places, territorial distances and territorial borders. See Najam, A; Runnals, D.;

Universalization apparently borrows from political idealism and manifests itself in global principles, declarations or treaties that highlight cooperation and the promotion of peace and justice among states. It is a convergence realm for those who advocate for “clear rules and institutions ensuring compliance” and “collective action enforced by an overarching authority.”¹⁴ However, lack of a supranational authority to ensure compliance to common rules makes universalization untenable especially with regard to the management of shared resources at the regional or global level. This is a critical standpoint on which political realism draws much relevance.

Nevertheless, transboundary natural resource management forms part of this universalist realm and which emerges purposely as a product of the romanticism attached to the need for cooperation in the exploitation of shared resources amongst sovereign states. It is, essentially, a composite of key global principles that have influenced a number of interstate natural resource management agreements and treaties around the world. Among the international conventions that manifest the principles of transboundary natural resource management are the 1966 Helsinki Rules on the Uses of the Waters of International Rivers, United Nations Convention on the Protection of Transboundary Watercourses and International Lakes and the United Nations Convention on the Non-Navigational Uses of International Watercourses.

Universalisation presumes that states would be willing to adopt the principles that in any case have been voluntarily acceded to by the member states. The obligation to behave according to agreed moral dictates is thus fundamental in deciding whether to accept them or not. Interestingly, however, such obligations are cumbersome to effect, notwithstanding that a number of cases exist that depict interstate collaboration arising from the moral obligation to cooperate. In the pursuit of global interest, and especially the pursuit of *Our Common Future*, interstate cooperation is a basic requirement. This is codified in treaties, conventions or laws that bind signatory states. Ellen Hey (2009) argues in this regard that interstate behavior in the environmental realm is regulated by global international law which deals with issues of “common interest ... and of concern to all humanity and that any one state cannot address

and Halle, M., *Environment and Globalization. Five Propositions*, (Winnipeg: International Institute for Sustainable Development, 2007), pp. 4-9

¹⁴ *Ibid.*

on its own.”¹⁵ In addressing issues of common and thus global concern, states have the obligation to cooperate with each other for the benefit of humanity, particularly in dealing with environmental degradation. Thus, global interests supersede state interests but states are obligated to make such interests functional for humanity.

Universalization of global values borrows quite significantly from sustainable development and the pursuit of equity. In its globally acclaimed definition, sustainable development emphasizes meeting current *needs* and minding about future *generations*. In Elen Hey’s assertion, individual and group needs conform to individual and group interest. Thus the requirement to meet the “needs of the present without compromising the ability of future generations to meet their needs” is an assertion of the synergy between individual and group interest.¹⁶ The environmental space that provides the requisite goods and services thus belongs to the present and future generations and survival in this space basically depends on equitable access and exploitation of common/environmental resources. Equity in this case emphasizes justice accorded to the present and future generations. Lake Victoria, irrespective of its geographical location, belongs to the global commons that can only be exploited in the global interest of pursuing human development; that is, the utilisation of its natural resources is subject to the moral obligation of assuring the “ability of future generations to meet their needs.”¹⁷

According to Turton and Ashton (2008) and Rahaman (2009), statistical analysis of the bilateral and multilateral agreements reached on water resource use in most shared river basins and international watercourses around the globe highlight “eight core elements.”¹⁸ These elements include the equitable use of shared resources, avoidance of causing significant harm to other riparian states, sovereign equality and territorial integrity, information exchange, consultation with other riparians, prior notification, environmental protection and peaceful resolution of disputes. Their realisation varies from context to

¹⁵ Ellen Hey, “Global Environmental Law: Common Interests and the Reconstitution of Public Space”, *Iusturn Aequurn Salutare* v 2009/1, 41-57.

¹⁶ *Ibid*, p.44.

¹⁷ *Ibid*.

¹⁸ Turton, A.R. and Ashton, P. “Basin Closure and Issues of Scale: The Southern African Hydropolitical Complex”, *International Journal of Water Resources Development*, 24:2 (2008), pp 305-318. See also Rahaman, M., “Principles of Transboundary Water Resources Management and Ganges Treaties: An Analysis”, *Water Resource Development*, Vol. 25 No.1 (2009) pp.159-173.

context but they are more relevant in shared lakes just as they are significant in the hegemonic analysis of shared river basins. Lets us address the more pertinent four principles.

Whereas universal transboundary resource management principles implicitly focus on equitable access by present and future generations, the exploitation of shared resources in one state tends to generate the propensity to cause harm to the partner state.¹⁹ The principle advocating reduction of harm, however, uses the adjective “significant harm” to diminish the requirement of states not causing harm to other states. How significant “a harm” could be is thus subject to individual state’s interpretation. This requirement is more applicable to river basins where water extraction and usage can be empirically determined and both scientific methods as well as hegemonic tactics applied to control them.²⁰ On Lake Victoria, the context of equitable access provides new thinking on the operationalisation of the concept. Lake Victoria is primarily incongruently shared by three sovereign states in the proportions of 6% (Kenya), 49% (Tanzania) and 45% Uganda).²¹ However, water contribution into the lake favours Tanzania with 61.2% and Kenya with 37.6% while Uganda contributes a paltry 1.3%.²² This means that sovereign authority will also be incongruently exercised. Furthermore, the proportion of water contribution leads to varied interpretations of sovereign rights over shared resources existing in a sovereign territory. This has meant that Uganda, that controls 45% of the surface area of the lake but contributes 1.3% to the lake waters, exercises undue control over those resources found in its territory at the expense of both Tanzania and Kenya. Conversely, Kenya with a small portion of the lake exerts more intensified fishing effort on the lake than her two neighbors due to growing numbers of fishers and superior fishing technology.

¹⁹ Vaughan, J., “AU Urges Egypt and Ethiopia to hold talks on the Nile Row”, *Africa Review*, 13th June, 2013.

²⁰ Zeitoun, M., Mirumachi, N. and Warner, J., “Transboundary Water Interaction II: Soft Power Underlying Conflict and Cooperation,” *Int Environ Agreements* (2011) 11:159–178.

²¹ Wirkus, L., and Boege, V, “Transboundary Water Management on African International Rivers and Lakes. Current State and Experiences”. In Waltina Sheunnan and Susan Neubert (ed), *Transboundary Water Management in Africa. Challenges for Development Cooperation* (Bonn: Deutsches Institut fuer Entwicklungspolitik, 2006

²² Lake Victoria Environmental Management Program, *Lake Environmental Management Project Phase 1, Revised Scientific Stocking Report – Progress During Lake Victoria Environmental Management project 1 and Challenges for the Future*, (Washington, DC: World Bank, 2003). See also COWI Consulting Engineers, *Integrated Water Quality/Limnology Study for Lake Victoria. Lake Victoria Environmental Management Project Part II, Technical report*, 2002.

These actions definitely cause harm not only to the lake ecology but also to economies of the partner states sharing Lake Victoria.

Universal principles of transboundary natural resource management further dictate that riparian states must share sovereign authority and territorial integrity. This is stated contrary to the Harmon doctrine and is pursued to foster peaceful coexistence and sharing of natural resources.²³ This is a principle that also rests on volunteerism from states to cooperate by ceding the exercise of absolute sovereignty in terms of exploitation of shared resources. Within the purview political realism, however, and the fact that states do enjoy unfettered exercise of power in their national interest, it has become virtually impossible for states to share sovereign authority in managing shared resources. Whereas the management of Lake Victoria natural resources falls under the Lake Victoria Basin Commission and the Lake Victoria Fisheries Organization protocol, the actual management has been relegated to the individual riparian states. Through the National Measures clause in the protocol establishing the Lake Victoria Fisheries Organization, member states have been empowered to institute laws and regulations that directly manage the utilisation of the resources in their interest. The consequent state policies addressing the lakes resource management have proved that member states are more inward looking than acting in the pursuit of regional integration. In a number of cases the pursuit of sustainable exploitation and utilisation has been implemented at the expense of partner riparian states. Incidences have been reported on cross-border incursions by state agents to the chagrin of partner states.²⁴ This has impinged on human and property rights of non-state actors on the lake and created animosity between the nationals of the three partner states.

The global agenda for natural resource management espouses the principle that disputes between riparian states be resolved in a peaceful manner. This requires putting in place

²³ McCaffery, Stephen, "Harmon Doctrine One Hundred Years Later: Buried Not Praised", *Natural Resources Journal*, Vol. 36(Summer 1996), Available http://lawschool.unm.edu/nrj/volumes/36/3/05_mccaffrey_harmon.pdf accessed on 20th August 2015

²⁴ Were, Edmond, *Hydro-hegemony and Transboundary Natural Resource Management on the Kenya-Uganda Portions of Lake Victoria*, Unpublished Thesis, (Masinde Muliro University of Science and Technology, 2013).

mechanisms that recognize the actors and processes for mediating and negotiating transboundary disputes.

Rahaman (2009) states that “all states in an international watercourse should seek a settlement of the disputes by peaceful means in case states concerned cannot reach agreement by negotiation”²⁵. This principle was endorsed by the 1966 Helsinki Rules and the 1997 UN Watercourses Convention. The argument behind this principle is that states should engage preventive diplomatic practices through structured dialogue. The challenge in applying this applicant is built in the *realpolitik* that drives the behavior of states in that they will largely engage other states if, in their own calculations, their national interests are taken care of. Transboundary natural resource disputes are not a rarity today and the African continent has a fair share of them especially after the discovery of hydrocarbons and other precious or high value natural resources in border regions of a number of countries.²⁶ The East African region is replete with a number of cases between Kenya and Uganda on Lake Victoria, Uganda and Congo on Lake Albert, Kenya and South Sudan over the Elemi Triangle, Kenya and Ethiopia over grazing lands in border areas, Uganda and South Sudan over encroachment on each other’s territory, Tanzania and Malawi on Lake Malawi and so many others. In a number of these disputes states have resorted to the use of force to address them, in the first instance. Resort to protection of national interest is thus a motivating factor in disputes arising from control and utilisation of shared natural resources.

Regional Agenda and Interest

The global agenda attempts to standardize the management of shared natural resources at regional, national and even local levels especially for the benefit of humanity.²⁷ This has been evident in the proclamations made in various international fora, conventions and treaties

²⁵ Rahaman, M., “Principles of Transboundary Water Resource Management and Ganges Treaties: An Analysis”, *Water Resource Development*, Vol. 25 No. 1(2009), p. 159-173.

²⁶ See the University of Durham website for a comprehensive list of boundary conflicts and processes towards resolving them at <https://www.dur.ac.uk/ibru/resources/links/?cat=all>, accessible on 21st August 2015. Kanyesigye, Frank “Rwanda, Uganda hold talks on border security”. Available <http://www.newtimes.co.rw/section/article/2010-03-28/81381/2010>. Accessible 21st August 2015.

²⁷ Refer to Mukherejee, n, and Krieckhaus, N. “Globalisation and Wellbeing, international political Science Review, 33(2)2011, pp. 150-170.

in which states have acceded to prescriptive values focusing on specific global issues such as environment, nuclear, seabed, health, education, etc.

In the backdrop of dwindling natural resources and the burgeoning world population, there have been demands for cooperative approaches amongst states in assuring the survival of future generations through proactive conservation measures and reduction of processes endangering the global environment. Regionalism emerges then as an entry point in the actualization of the global agenda and Africa is replete with regional organizations that deal with political, economic and environmental issues since the early 1960s.²⁸ Regionalism in this paper is dissimilar to the regional approach adopted in natural resource management in developed countries especially in Australia or the USA where there is a paradigm shift in the governance of natural resources.²⁹ The regional approach adopted in this paper considers inter-state cooperation in integrating management practices by sovereign states. Lake Victoria being a shared resource amongst sovereign states can benefit from the joint management processes that arise as a result of adherence to the global principles of transboundary natural resource management.

The establishment of the Lake Victoria Basin Commission within the East African Community was done with the hindsight that Lake Victoria and its basin was an “area of common interest and a regional economic zone to be developed by Member states.”³⁰ The management of the lake resources focuses on addressing cross-border issues by developing “policies and program aimed at widening and deepening cooperation among partner states in political, economic, social and cultural fields, research and technology, defense, security and legal and judicial affairs, for mutual benefit.”³¹ The policies and programs focus, with respect

²⁸ Huggins, C., Chenje, M., and Katerere, J.M., “Environment for Peace and Regional Cooperation”, pp. 375-405, Available http://www.unep.org/DEWA/Africa/docs/en/aeo-2/chapters/aeo-2_ch12_ENVIRONMENT_FOR_%20PEACE_AND.pdf, accessible 20th August 2105.

²⁹ Bellamy, Jennifer, “Adaptive Governance: The Challenge for Natural Resource Management, Chapter 7, pp. 95-117. Available: <http://press.anu.edu.au/anzsog/fra/pdf/ch07.pdf> accessed 20th August 2015.

³⁰ UNDP-GEF, International Water: Review of Legal and Institutional Frameworks (Washington Dc: UNDP-GEF International Waters Project, pp.172-190.

³¹ Adar, K., East African Community. First International Democracy Report, (Moncalieri: Center for Studies on Federalism, 2011)

to Kenya alone, on the needs and interests of over 500,000 people directly employed while over one million benefit from it.³²

Whereas the Lake Victoria Basin Commission has a wider mandate within the Lake Victoria Basin, the Lake Victoria Fisheries Organisation was established purposely to harmonise “domestic laws and regulations for the sustainable use of the living resources of Lake Victoria and to develop and adopt conservation and management measures.”³³ At the heart of the mandate, however, lie the conservation, extraction, utilisation and marketing of the Lake Victoria natural resources for the benefit of the state, fishermen, fishmongers, fish processors, fish marketers and fish transporters among others.

The promotion of regional interest, however, suffers from perceived suspicions about derived benefit by some partner states at the expense of others. Uganda has had a notion that Kenyan originating fishers have been exploiting Ugandan fish without regard to the national fishery laws and regulations.³⁴ This has been justified by the large number of Kenyan fishers and vessels on Ugandan waters. Their impact on the fishery stocks has been interpreted in the negative and prompted the Ugandan state agents to target them during enforcement of the fisheries laws and regulations. A number of them have been arrested for illegal entry in Ugandan waters, fishing without permits, illegal trading in Ugandan fish, and using unlicensed gear to fish in Ugandan waters. Similar cases have been reported in Tanzania against Ugandan and Kenyan fishers. Kenya has not recorded such complaints against fishers from the neighbouring partner states probably due the small proportion of the lake or scarcity of fish on its portion of the lake. In fact, Kenya has served as a ready fish market for fish from Tanzania and Uganda. In addition, the country has had a developed fish processing infrastructure that has attracted fish inputs from the partner states.

To a larger extent, the regional agenda for transboundary natural resource management has borrowed heavily from the global agenda especially the requirement for coordinated management of the shared natural resources of the lake. This is deliberately done to promote

³² Republic of Kenya, Fisheries Sector, (Nairobi: Ministry of fisheries, 2012)

³³ UNDP-GEF, 2011, Ibid.

³⁴ Lake Victoria Fisheries Organization, *Regional Status Report of Lake Victoria Biennial Surveys Between 2000-2012*, (Jinja: LVFO, 2013).

conservation of the natural resources so that present generations can sustainably utilize the resource without jeopardising access by future generations.

National Interest in Transboundary Natural Resource Management

States have been a central analytical tool in the disciplines of political science and international relations. The prominence of these disciplines has been propelled by the ability of researchers in those realms to proffer conceptual and theoretical tools for locating the state in prevailing discourses. The argumentations on the state have mainly been advanced with a view to linking state behavior to advancement of the interest of a nation or state, depending on the prevailing political context. In his *Politics Among Nations*, Hans Morgenthau, states succinctly thus about American relations with the rest of world:

and, above all, remember always that it is not only a political necessity, but also a moral duty for a nation to always follow in its dealings with other nations but one guiding star, one standard for thought, one rule for action: The National Interest.³⁵

Morgenthau's conceptualisation of political realism equated national interest with the accumulation of power and thus the ability for global dominance. This was achievable through a calculated balance of power that placed the interests of the American state in the forefront of inter-state interactions. Kiyono (1969) expounds the concept *national interest* expressed by the United States and more probably by all nation-states by paraphrasing Hans Morgenthau in *Another Debate: The National Interest of the United States*: "Thus all nations do what they cannot help but do: protect their physical, political and cultural identity against encroachments by other nations."³⁶ He equated national identity to national interest since they sit at the base of national survival. Sklenka (2007), however, provides a more succinct and graphic explanation of national interest as comprising "the willingness of a state to uphold its morals and national values with the commitment of its blood, treasure, time and energy to achieve sometimes specific and sometimes in specific ends."³⁷

³⁵ Pham, Peter, "What is the National Interest? Hans Morgenthau's Realist Vision and American Foreign Policy, *American Foreign Policy Interests*, 30: 256-265, 2008

³⁶ Kiyono, Ken, "A Study of the Concept National Interest of Hans Morgenthau: As the Standard of American Foreign Policy", (1969). Available http://naosite.lb.nagasaki-u.ac.jp/dspace/bitstream/10069/27783/1/keieikeizai49_03_04.pdf, Accessed 21st August 2015.

³⁷ Sklenka, S.D. "Strategy, National Interests and Means To an End", (Carlisle: Strategic Studies Institute 2007) p. 3.) www.strategicstudiesinstitute.army (Accessed on 15 December 2012)

National interest thus consists of those cherished domestic ambitions, goals and values pursued by the state spur national development.³⁸ Nationalist interest is served, however, by an ethos powered by a sentimental attachment to the values of the nation.³⁹ The sentimental attachment is buttressed by the desire to create and sustain a nation's autonomy, identity and unity. The natural resources found in a nation thus contribute to the sculpturing of a cherished identity somewhat different from any others. In contexts of naturally shared resources, nationalism projects a desire for hegemonic control of shared resources but essentially those found in one's territory. Power relations that ensue are thus dominant attributes of transboundary natural resource management. In these relations, manifestations of power asymmetry tend to emerge whereby the hegemon drives the agenda that targets the accumulation of benefits at the expense of partner states. This is feasible because national interest and thus hegemonic behavior is powered by strategic thinking and depends on whether national interest is survivalist, vital, major or peripheral.⁴⁰

Hirsch and Jensen (2006) in their study on the Mekong River Commission aver that national interests sit at the centre of transboundary cooperation between Vietnam, Laos, Thailand and China. They argue that "governments jealously maintain sovereignty over their own stretches of the river, and they invoke the discourse of national interest to legitimize development of the basin's resources."⁴¹ By tracing the tribulations of the Commission, the authors introduce the concept of *objective national interest*, which infers that each riparian state "has an "objective" geographically-based interest deriving from its location on the river, topography and benefits derived or sought from the river and its resources."⁴²

³⁸ Refer to the operational Definitions section in Were, E.M., *Hydrohegemony and Transboundary Natural Resource Management in the Kenya-Uganda Portions of Lake Victoria*. Unpublished PhD Thesis. Masinde Muliro University of Science and Technology. (December, 2013)

³⁹ Were, E.M. and Amutabi, M.N. *Nationalism and Democracy for Participatory Development*. (Eldoret: Moi University Press; 2000). See also Sklenka, S.D. *Ibid*.

⁴⁰ Sklenka, S.D. *Ibid*.. For a full discussion on hegemony and national interest on Lake Victoria refer to Were, E.M. *Hydrohegemony and Transboundary Natural Resource Management on the Kenya-Uganda Portions of Lake Victoria*. Masinde Muliro University of Science and Technology. Unpublished Ph.D Thesis (2013).

⁴¹ Hirsch, Philip and Jensen Kurt Morsch. *National Interests and Transboundary Water Governance in the Mekong*. (University of Sydney: Danida, 2006), p. 45.

⁴² *Ibid*, 9.46. The authors argue further that "the geography of the Mekong ... would suggest that each country pursues its goals based on "objective" criteria such as its position upstream or downstream and whether it lies in wet areas of sharp relief suited to hydroelectric generation, dry areas requiring irrigation, flat low-

The Mekong River phenomenon is discernible as well on the Nile, Jordan and Tigris rivers where hegemonic practices have been exhibited in pursuit of the dominant state's interest.⁴³

The International Network for Basin Organizations and the Global Water Partnership (2012), however, acknowledge that transboundary natural resource management, albeit being a global phenomenon, is significantly influenced by state sovereignty since it usually responds to national legal and institutional policy frameworks.⁴⁴ In addition, the interests and objectives for natural resource use are linked to national development and security objectives and may differ across nations. The authors further argue that the proportion of the country affected by the transboundary basin can in some cases have an impact on its involvement and willingness to establish transboundary collaboration; that is, if a country is affected by a river basin on a small part of its territory, its involvement will not be as strong as if a large portion of its territory is concerned. Furthermore, the authors argue that complexities emerge in shared basins with regard to conflicts on water resource allocation and benefit sharing and the apparent laxity or unwillingness to exchange information and data on water resources.

Regional vs. National Interest in the Lake Victoria Fisheries Organisation

The foregoing arguments on national interest are deeply manifested in the Convention for the Establishment of Lake Victoria Fisheries Organization. Whereas the convention calls for the harmonization of national measures in order to promote the sustainable (and thus regionally sanctioned) utilization of the living resources of Lake Victoria, it, however, specifies that it does not infringe upon member states' freedom and ability to "adopt national laws that are more stringent or extensive than required to fulfill its obligation to the LVFO."⁴⁵ This gives room for riparian states to engage in activities ostensibly in their self-interest but which are breeding grounds for inter-state conflict or disputes.

lying areas subject to flooding, or coastal areas subject to saline intrusion. Each country's interests would also be determined by the specific benefits it actually or potentially derives from the river system, whether they be food staples (rice or fish), energy or navigation benefits.

⁴³ Zeitoun, M., Mirumachi, N., and Warner, J., "Transboundary Water Interaction II: Soft Power Underlying Conflict and Cooperation," Working Paper.

⁴⁴ International Network for Basin Organizations and the Global Water Partnership, *Handbook for Integrated Water Management in Transboundary Basins of Rivers, Lakes and Aquifers*, (Paris: International Office for Water, 2012),

⁴⁵ UNDP-GEF, *International Waters: Review of Legal Institutional Frameworks* (Washington, DC: UNDP-GEF International Waters Project, 2011), pp. 172-190

Indeed a number of resource-based and territorial disputes have been experienced on Lake Victoria as a result of nationalistic interpretation of the regional protocol.

The National Measures Clause of Article XII of the Convention for the Establishment of the Lake Victoria Fisheries Organization is a key avenue for the expression of state sovereignty in the East African region. The Clause recognizes the sovereignty and territorial integrity of the member states and especially empowers the member states to “take all necessary measures including legislative measures when appropriate, in accordance with their respective constitutional procedures and national laws to implement the decisions of the Organization's Governing bodies.”⁴⁶ In particular it empowers the member states to “enforce its national laws and regulations adopted pursuant to paragraph 1 of this Article” in “respect of its own territory and territorial waters; its own nationals and the fish landed in its territory”. It further empowers the member states to “remain free to impose such penalties in accordance with its national laws as it may determine to be necessary to fulfill its obligations” and that “nothing in this Convention shall be interpreted as preventing a Contracting Party from exercising fully its sovereign powers in respect of any of the subject matters of this Convention. In particular, each Contracting Party shall remain free to adopt national laws and regulations more stringent or extensive than those required to fulfill its obligations”. This Article is basically a *carte blanche* handed to the signatory member states of Lake Victoria Fisheries Organization to indiscriminately exercise their sovereign powers over the utilization of the shared natural resources of Lake Victoria. In the Clause, nationalist stances have found a fertile ground to germinate and prosper. The effect of this Article can be seen in the *liberté* with which some member states have exhibited in implementing the fishery policies on their territory.⁴⁷

National interest is discernible further in the attempts to industrialize the fishing sector in both countries. The national fishery policies in Kenya and Uganda are explicit in the

⁴⁶ Convention for the establishment of the Lake Victoria Fisheries Organization (with annex and final act). Concluded at Kisumu, Kenya, on 30 June 1994, No. 32987, p.137-138

⁴⁷ Refer to Republic of Uganda, *National Fishery Policy*. (Entebbe: Ministry of Agriculture, Animal Husbandry and Fisheries, 2004), Republic of Kenya, *Fisheries Act. Laws of Kenya* (Nairobi: Government Printer, 1991)

utilization of fishery resources obtaining in each partners territory for the benefit of its citizens⁴⁸. In Uganda the policy empowers the various state agencies to enforce the national fisheries policy and especially the ban on whole fish exports to neighboring countries. The fish processing firms depend generally on fish landings from the lake which have prompted fierce competition for access to these resources. Consequences of overexploitation due to the fish race are evident in the respective portions of Lake Victoria in the two countries.⁴⁹

The nominal management of the fishery resources has been delegated to the Beach management Units (BMU) along the shores of the lake.⁵⁰ The BMU are the face of the community and by extension the state, on the shores of the lake. Their powers are wide and with the support of state security agents, they are responsible for conservation, trade, control of pollution, and generally the enforcement of the *national* fisheries rules and regulations in each state waters and shores.⁵¹ To a large extent their responsibilities mirror the intent of the State, which in most instances run counter to the global principles of transboundary natural resource management.

Interface between National Interest and Global Demand for Lake Victoria Resources

Global interest in the environmental realm is not simply felt in the ability of the international community to provide the moral standards that states are expected to adhere to in the design of their national policies. Economic globalisation as well plays a significant role in shaping state behavior in regulating or exacerbating natural resource extraction and utilisation.⁵² Thus, depending on the perceived contribution of natural resources to the Gross Domestic Product or to individual incomes, the intensity of extraction and utilisation will be pursued or regulated accordingly.

⁴⁸ Republic of Uganda *Ibid.* 2004.

⁴⁹ Refer to Odada, E.O., Mitigation of Environmental Problems in Lake Victoria, East Africa – Causal Chain and Policy Options Analyses, *Ambio* Vol.33 No.1(2004).

⁵⁰ There 1087 registered BMU on the shores of Lake Victoria both on the mainland and the islands. A BMU is expected to have at least 30 registered boats and membership includes all the stakeholders in the locality including women, youth, small and large scale fishers as well as all those whose activities on the beach contribute to the sustainable management of the fishery resources. The BMUs do, however, experience political, economic and social challenges that impact their effective engagement in the sustainability of natural resources of the lake.

⁵¹ Republic of Kenya, *National Beach Management Unit Guidelines*. (Nairobi: Department of Fisheries, 2006).

⁵² Mukherjee, N and Kriekhaus, J., *Ibid.*

High value natural resources such as hydrocarbons tend to attract the interest of the national government due to their immense contribution to the Gross Domestic Product. Their exploitation will thus be immensely regulated and where necessary, non-state actors may be excluded. When common resources such as Lake Victoria fish are, however, deemed to significantly contribute to the GDP and are highly demanded in the national and regional market, their extraction will be a consequence of competition between various non-state actors, some of whom may have the blessings of the agents of the respective state. This is more evident on Lake Victoria especially in the expansive territorial waters of two riparian states.

Furthermore, the intensity of resource extraction and use becomes more aggravated when global interest and consequential demand are sustained over time. This phenomenon has captured the interest of a growing number of states to the extent that resource stock levels have been depleted to meet the ever increasing demand from external markets and more fundamentally succeeded in spatially integrating resource rich regions in the global resource market. It has been noted in emerging literature that “fisheries and aquaculture in Sub-Saharan Africa have and will respond to a series of external forces that shape demand and supply in the sector.”⁵³ Walter Carroll has demonstrated the global phenomenon of supply and demand for fish by paraphrasing Bestor (2000:54) thus: “a 500-pound tuna is caught off the coast of New England or Spain, flown thousands of miles to Tokyo, sold for tens of thousands of dollars to Japanese buyers and shipped to chefs in New York and Hong Kong. That’s the manic logic of global *sushi*.”⁵⁴ Just like *sushi* has linked Japan to the rest of the world, fish from Lake Victoria has indeed linked East Africa to the rest of the world.⁵⁵ The region can thus not be excluded from the global analysis of fresh water fish trade.

⁵³ Refer to Gordon, Ann, Fiengold C., Crissman, C. C. and Pulis, A., *Fish Production, Consumption and Trade in Sub-Saharan Africa: A Review Analysis* (WorldFish, 2013). They paraphrase Garcia and Grainger (2005) by emphasizing that global economic development patterns, population growth, and the state of the environment as the main drivers of change. They assert that “globalisation of markets affects trade and investment flows through factors such as trade alliances to remove barriers, low cost transport, interconnections between products, labour, and financial markets, and deregulation of country economies”. In particular they point out that “direct access to European markets through low cost transport and value chains governed by large European retailers and wholesalers has created and sustained the export market for Nile Perch from Lake Victoria, p. 4

⁵⁴ Walter F. Carroll, *Sushi: Globalization through Food Culture: Towards a Study of Global Food Networks*, p.451-456, http://www.icis.kansai-u.ac.jp/data/journal02-v1/31_Carroll.pdf. 07th September 2015

⁵⁵ Ibid.

Global demand for the resources of Lake Victoria is supported by an increasing number of non-state actors in the Lake Basin region. The array of actors includes fishers, fishmongers, fish truckers and lake containers, industrial fish processors and the fisheries cooperatives dotted along the lake shores in the three riparian states. The role and activities of the actors in this region manifest the prevailing national interest in the lake resources. Paradoxically, the non-state actors supported by the administrative and regulatory institutions, sometimes by the coercive forces of the respective riparian state, have over the years joined the “fish race” that has visited wide-ranging negative effects on the quality and stock of the natural resources of the Lake as well as the livelihoods of the inhabitants of the lake region.⁵⁶ Between 2000 and 2012, the number of fishers in Uganda almost doubled from 34,000 to 63,921. In Kenya, with 6% of the surface area of the lake, in the same period, the aggregate change ranged from 38,431 to 40,078.⁵⁷ The increase in fishers is accompanied by an increase in the number of fish vessels and fishnets. The largest increase was also recorded in the flat-ended boats that are designed for attaching outboard motors thus increasing the fishing range and effort per day. Comparatively speaking, Kenya possesses a higher potential of fishing effort not only in its waters but also in those of neighboring countries. This is facilitated by the modern fishing and fish transport technology that are at the disposal of its fishers - and who benefit from the free access that obtains on the lake.

The increasing trend of the number of fishers on Lake Victoria is discernible in all the three partner states. The combined efforts of the state and non-state actors on the lake have ensured that international demand for fish and fish products is sustainably met at all costs. According to Bukenya, Obua and Hyuha (2012), East African countries “have been able to penetrate the international market for fishery products and compete well in a liberalized global economy⁵⁸. Apart from the Tilapia and *Rastrineobola argentea* (also known as *omena* or *dagaa* in East Africa) fish species, Nile Perch is the most dominant fish species in the export trade, traditionally accounting for 80% in volume and value of total fish exports from East Africa.

⁵⁶ Lake Victoria Fisheries Organization, *Regional Status Report of Lake Victoria Biennial Surveys Between 2000-2012*, (Jinja: LVFO, 2013).

⁵⁷ Ibid.

⁵⁸ Bukenya, J.O.; Obua, E. and Hyuha, T. “Demand Elasticities for East African Fish Exports to the European Union”. *Journal of African Business*, 13:1(2012), pp. 70-80.

The authors point out that the European Union imports over 70% of total fish exports from East Africa. Proportionally, Tanzania accounts for 57%, Uganda 31% and Kenya 12% of total fish exports.⁵⁹

The USA is an emerging and significant market for fishery resources of Lake Victoria, especially targeting non-conventional or as it is known “alternative” fish exports. The USA market focuses mainly on ecologically produced fish. For example, Anova Foods is an established player in the fisheries sector on Lake Victoria through its Naturland Certified Product that deals in an alternative Nile Perch species that is caught in a sustainable manner and whose demand in the USA is rising steadily.⁶⁰ This makes more than 20% of the firms Nile Perch exports from Lake Victoria⁶¹. The project is run by a partnership of the Anova Foods and the GTZ and is “designed to ensure the longevity of the species as well as improve the ecological, social and economic conditions” of fish sites.⁶² Its exploitation is subject to fish-gear restrictions, minimum size requirements, price transparency and fair and safer working conditions.⁶³ The proceeds from the sale of the Nile Perch are ploughed back into the community by supporting “kindergartens, adult education programs, mobile health clinics and means for clean drinking water in the community” in Tanzania’s Bukoba region alone.⁶⁴

The European Union accounts for a large and growing proportion of fresh water fish import from East Africa. This is a significant driver of fishing activities on the lake. Its importance was registered when it banned fresh water fish imports from the region as a result of the low and substandard hygienic standards on the fish landing shores of Lake Victoria.

⁵⁹ Bukenya, Obua and Hyuha, *Ibid.*, p.72.

⁶⁰ Refer to the Anova website for details on the criteria for engagement in ecological farming of fish on Lake Victoria, available: <http://www.anovaseafood.com/en/seafood-sources/lake-victoria-perch> (accessed 30 September 2015)

⁶¹ See SeaFood Source, available: <http://www.seafoodsource.com/news/environment-sustainability/certified-lake-victoria-perch-a-hit-in-u-s> (accessible 30 September 2015)

⁶² The certification focuses, among other things, on the “ecological, social and economical dimensions of fisheries ”, available: <http://www.anovaseafood.com/en/about-us/sustainability/certification> (accessed 30 September 2015).

⁶³ *Ibid.*

⁶⁴ See “Anova Food surpasses expectations with sales growth of Sustainable Lake Victoria Perch”, accessible: <http://www.einpresswire.com/article/56874575/anova-food-surpasses-expectations-with-sales-growth-of-sustainable-lake-victoria-perch> (accessed 30th September, 2015).

Since the demand for the white fish flesh is still growing in Europe and to ensure sustained supply of the fish products, it partnered with the state in the three riparian states to improve on the Good Hygiene Practice (GHP) and Hazard analysis at Critical Control Points (HACCP).⁶⁵ Within the Union, France accounts for 25.1%, Belgium 19% and Netherlands 11.7%. The Northern European market imports mainly trimmed Nile Perch and Tilapia fillet. According to Benkenstein (2011) Nile perch produces high-value white fish fillets, which have a ready market in the EU, Middle East, Australia and the US.⁶⁶ As Nile perch populations rapidly increased in the lake, industrial fish processors were established on the lake shore to take advantage of the demand for quality white fish in global markets. By 2008, 10 fish-processing factories had been constructed in Uganda, six in Kenya and nine in Tanzania. The most valuable products are fresh and frozen fish fillets, for which Europe is the primary market.

The Asian market has emerged recently mainly as a consequence of the developments within the traditional fish export-import market in the European Union. According to Cocker (2014) East African countries are increasingly and strenuously in search for alternative markets for their fresh water fish products. He attributes this shift to the East on the stringent regulatory regime that has variously been imposed by the European Union on fresh water fish products from Lake Victoria and more specifically on issues to do with “food safety, traceability and increasingly certification.”⁶⁷ The Asian market is today a significant player in fish marketing. Israel accounts for 7% and United Arab Emirates 4%. Other emerging significant markets include Japan, Singapore, Hong Kong, Australia.

⁶⁵ Cocker Lee, *Strategic Review On African Aquaculture Markets and Export Potential* (Sterling: University of Sterling and NEPAD, 2014) p.35

⁶⁶ Benkenstein, A. *Troubled Waters: Sustaining Uganda's lake Victoria's Nile Perch Fishery* (Johannesburg: South African Institute of International Affairs, 2011)

⁶⁷ Cocker Lee, *Strategic Review On African Aquaculture Markets and Export Potential* (Sterling: University of Sterling and NEPAD, 2014) p.35. The author states that the stringent measures include, among others, the adherence to Good Hygiene Practice (GHP) and Hazard analysis at Critical Control Points (HACCP) that have seen increasing modernization of the Beach Management Units along the landing shores of Lake Victoria and a heightened Public/Private Partnership between the state Fisheries Departments and the Fish Processing factories in the three riparian states.

The Far East is a major market for fish bladders from the Nile Perch that are exported mainly to Hong Kong and China. Japan and Israel account for a large proportion of de-scaled skin fillets. The two countries are also a major market for dagaa/omena.⁶⁸

China's presence on Lake Victoria is part of the strategic partnership entered into between China and FAO within the framework of South-South Cooperation.⁶⁹ It was argued then that Chinese practical expertise in intense small scale farming and aquaculture would be of immense help to boost productivity in African farm enterprises. Before then, China had entered into a joint venture with the Republic of Uganda in 1987. The Sino-Uganda Fisheries Joint Venture Company Limited was signed between the Republic of Uganda and China Liaoning Corporation of Economic and Technical Cooperation and was based in Entebbe with the objective of developing an integrated industrial fish harvesting, processing and marketing concern. Since its establishment the venture has been run by a team of Chinese management and technical personnel supported by Ugandan counterparts. To support the envisaged fishing endeavors a Kampala Ice Plant was also constructed with financing from China and run by a small team of Chinese technical staff.

The presence of the Chinese on Lake Victoria has further been evidenced by their gradual but sustained engagement in capture fisheries in Uganda and especially their participation in cage farming. Although cage farming is still in its trial phase the presence of the Chinese in its implementation has alarmed local Ugandans who express fear that "Lake Victoria has been sold to Chinese", of course against a backdrop of denials from National Fisheries Resource Institute (NaFIRRI).⁷⁰ Cage farming will inevitably lead to closure of certain sections of the lake in an effort to promote commercial aquaculture production to the envisaged 300,000 tonnes. According to SciDev, cage farming is an introduction from China to Uganda that aims to boost commercial fish farming in water bodies in Uganda⁷¹. This is a

⁶⁸ Bukenya, J.O.; Obua, E. and Hyuha, T., *Ibid.*

⁶⁹ Refer to Wiegatz Jorg, Uganda's Human Resource Challenge: Training, Business Culture and Economic Development. P.394

⁷⁰ George Achia, Modern Strains Put Lake Victoria in Critical Condition. (Scie Dev, 2013) www.scieDev.net.

⁷¹ From the Sub-Saharan Africa Desk, A New Technology to Boost Commercial Fish Farming in Lake, Dams, Reservoirs and Rivers is Being Transferred from China to Uganda. Refer to www.ScieDev.Net. 05.09.13.

three year China-Uganda Cooperation in aquaculture research that involves the use of metal cages of various sizes that are suspended in a water body.

Each cage carries 10,000 fingerlings. Fish farmers use a measure of efficiency in converting food mass into increased body weight to know when to transfer the young fish to the next cage until they mature for harvesting six months later. This technology is expected to be rolled out nationally after capacity building at the NaFIRRI. The adoption of this technology in Kenya and Tanzania is still in its infancy and beset by ecological challenges on the lake.

A significant development on the shores of Lake Victoria that has ensured the tight linkage between the lake shores and the international markets is the growth of the modern fish processing industry. Fish processing on the shores of Lake Victoria has basically and effectively taken root since the early 1990s with the rapid industrialization of the fish sector in Uganda and Tanzania as a belated catching-up process focused on Kenya⁷². The Kenyan fresh water fish processing industry had had a head start since the 1950s as a result of the more advanced transport infrastructure connecting the lake region to the external markets through either the railway network or the international airlines hub. The catching-up process admittedly introduced a rush for fish by the three riparian states to satisfy their budding fish processing industry. The consequences have been variously referred to as overexploitation and reducing sustainability of the lake resources. The process of industrialization of the sector was further facilitated by the free access on Lake Victoria that ensured ample supply of fish catches to the established fish factories in Kisumu, Migori and Nairobi. The belated domestic realisation that fish products were a stable source of foreign exchange further aggravated fish exploitation. Resultantly, a fishery policy was instituted in each riparian state to modernize the extraction and exploitation subsector supported by the coercive machinery of the state in the three riparian states. The entry of the state in the exploitation business has introduced hegemonic tendencies on the lake to the extent free access by fishers and fish traders from partner states has been controlled to a bare minimum.

⁷² Ssali, W.M., Reynolds, J.E and Ohwayo, O.R., “Industrial Processing, Investment and Development for the Fisheries of Lake Victoria” , *National Seminar On the Management of the Fisheries of Lake Victoria*, 6-8th August, 1991 (Jinja: Department of Fisheries, 1991).

Just as the rational actor arguments are valid in the realist theory of the state, they have as well been discernible in the transnational nature of non-state actors who decidedly translocated their fish processing businesses to those partner states with ample supply of fish as a raw material.⁷³ Uganda and Tanzania have generally benefitted from the cross-border translocation of fish processing factories from Kenya to benefit from the 1990s ban on whole fresh fish exports to neighboring countries. Of course, Kenya was the big loser in the fish ban policy. This has consequently established Uganda, and to a lesser extent Tanzania, as a leading exporter of fish fillets to the European Union and the Asian markets, let alone the large undocumented exports to the regional markets. Modern fish processing outlets especially in Tanzania and Uganda have further led to the intensification of fishing effort on the lake including the encroachment on protected zones and use of illegal methods and techniques in the capture process. Within this scenario, it can be discerned that the global demand for fresh water fish and local fishing effort and fish processing work in unison to ensure the unsustainable exploitation of the common resources of Lake Victoria. Expert advice has been proffered in varied fora but the exploitation has continued unabatedly. The presence of large scale fishing operations on the shores of the lake has further marginalized artisan fishing thus impacting on the subsistence livelihoods of the residents of the Lake Basin. The specter of deserted BMUs on the Kenyan shoreline is testament to the resource capture that is fast materialising in the fishing economy of the Lake Basin region.

Conclusions and Recommendations

Conflict over Lake Victoria natural resources is real but subtle. None of the riparian states wishes to be identified as the aggressor yet hegemonic tendencies emanating from political realism can be discerned in the tripartite relationship. Whereas Kenya owns a small portion of the Lake its influence over the common resources of the Lake spreads far and wide especially practiced through the numerous fishers and fishmongers on the lake. Furthermore, the dominance of Kenyan entrepreneurs of the fish processing sector even in the partner

⁷³ Refer to an unfinished paper by Selby, J., "Beyond Hegemony: Gramsci, the National and Transnational" (Brighton: University of Sussex, 2007) available: <http://www.soas.ac.uk/water/publications/papers/file39697.pdf> (accessed 18 September 2012).

states demonstrates the soft power that Kenya wields over the Lake resources. Uganda has since the 1990s relied on the militarization of the fish sector to exert itself as a regional force.

This was made possible by using the National Fisheries Policy which limits enjoyment of the benefits of the fishery resources to residents of the Ugandan territory. Similar behavior is also discernible in the Tanzanian waters of Lake Victoria

The economic benefit of Lake Victoria is crucial to the partner states sharing Lake Victoria to the extent that each state would as much as possible resort to the dictates of *realpolitik* to emerge as a dominant actor on Lake Victoria. This is despite the existing protocol regulating the utilization of Lake Victoria resources and the global principles informing transboundary natural resource management on the lake. Emerging from this analysis is the scenario that even though and whereas the global agenda roots for utilization of common resources for common benefit of the partner states, domestic forces tend to play countervailing and contradictory roles in transboundary natural resources management. The application of the global principles of transboundary natural resources management has not attracted the attention of local and national communities whose respective survival and development efforts are tied to unfettered exploitation of the common natural resources on the lake. Indeed, at the national level, national actors tend to enjoy almost free reign and access in the exploitation of such resources. The Lake Victoria resources have for this long suffered increased exploitation amidst a determined application of fisheries rules and regulations in the partner states.

It is feasible to deduce, therefore, that the global agenda for transboundary natural resource management on Lake Victoria has been peripheralized by the national measures in both the regional protocol as well as the national fisheries policies. The global principles of transboundary natural resource management are designed to guide the conduct of nations with regard to management of shared watercourses. However, their realization has been left to the discretion of individual countries.

The three riparian states need to energise the existing regional protocols by a synergistic and cooperative implementation process through regional enforcement mechanisms. This requires the establishment of both enforcement structures and processes as well as conflict

resolution mechanisms that derive authority from the East African Community regional institutions. Reliance on national institutions to pursue regional interests and agenda simply plays into the hands of real and perceived hydro-hegemons in the region.