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Comparative capitalism and sustainable development: Stakeholder capitalism and co-management in the Kenyan fisheries sub sector
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Abstract

This paper argues that stakeholder capitalism is more appropriate to natural resource management and rural development in Africa than other varieties of capitalism. It examines different management arrangements in Kenyan Lake Victoria fisheries resources to argue that whilst stakeholder capitalism is still far from being the mainstream model of capitalism in Kenya, theoretically and empirically, it is more appropriate to sustainable development than the Anglo-Saxon variety of capitalism that the country inherited from its British colonizers. The paper demonstrates that the concepts of ownership and management rights are social, economic and political constructs that are continuously contested, with huge implications for sustainable development and natural resource management.

Keywords: Co-management; Kenya; Fisheries management; Stakeholder capitalism; Sustainable development.

1. Comparative capitalism and the sustainable development question

It is increasingly recognized that successful capitalism comes in more than one variety (Aoki, 1984; Dore, 2000; Hall and Soskice, 2001; Allen, 2004). The varieties of capitalism (VoC) or comparative capitalism (CC) debate has given rise to the recognition that national economies are characterized by distinct institutional constellations that engender particular systemic ‘logics’ for economic action (Jackson and Deeg, 2006); or distinct institutional arrangements that outline the relations among investment, ownership, control and economic growth (Fligstein, 1996). This gives rise to nationally distinct varieties of capitalism.

The VoC/CC literature as yet lacks a unified approach beyond a common focus on understanding the relationship between institutional variables and economic outcomes such as efficiency, growth and innovation (Jackson and Deeg, 2006: 5). It encompasses a variety of analytical frameworks with no agreement as yet on the number of distinct types of capitalism (Jackson and Deeg, 2006: 6).

Four fundamental principles drawn upon insights from various disciplines are included in the literature:

a) Economic sociology: business firms are embedded within particular social contexts — giving rise to differences in the social organization and governance of firms in different economies. Moreover, forms of economic governance or coordination extend beyond the conventional markets, hierarchies and state intervention to include mechanisms such as self governing associations, communities and social networks (Granovetter, 1985).

b) Political economy: the rise of different corporate governance models is increasingly attributed to the influence of social and political factors (Roy, 1997; Crouch and Streeck, 1997).

c) New institutional economics: issues concerning comparative institutional advantages and institutional theories of the supply side or how different institutions constrain the collective supply of labour, capital and other ‘inputs’ (Jackson and Deeg, 2006: 6).

d) Business studies: studies of the development of particular business firms and industries in different countries (Chandler, 1978).

The VoC/CC debate generally concerns itself with models of capitalism in industrialized countries. Typically, these are broadly categorized into two types: the Liberal Market Economy (LME) or the Anglo-Saxon variety of capitalism.
(exemplified by the UK and the US) and the Organized or Coordinated Market Economy (CME) variety of capitalism exemplified by Germany, France and Japan (Hall and Soskice, 2001). A number of factors distinguish these two varieties but one of the most central is the conception of corporate governance. The LME model holds that firms should be run in the interest of shareholders whilst the CME model holds that firms should be run in the interests of a wider variety of stakeholders, in such a way that a society’s resources are used more efficiently (Allen, 2005: 165). The CME model views shareholders as just one among many important stakeholders (such as employees and customers) in whose interests firms should be run.

The LME variety of capitalism ensures that firms are run in the interests of shareholders through five key corporate mechanisms: the board of directors, executive compensation, markets for corporate control, concentrated holdings and monitoring by financial institutions, and debt. The CME model ensures corporate governance in the interests of a broader variety of stakeholders through legal systems that explicitly provide that firms do not have a sole duty to pursue the interests of shareholders. In the German system of codetermination (Mitbestimmung) for example, employees have an equal number of seats in the supervisory boards of large corporations (Aufsichtsrat) or all the seats in the factory councils (Betriebsrat) of most companies. Some firms even have both, in which case employees are twice represented. The supervisory boards are responsible for the strategic decisions of firms — investment, financial, operational and other strategic decisions — but through a process which gives employees both a voice and a stake (ensuring that firms are run in a manner that is socially acceptable to employees and that employees’ actions and demands do not jeopardize the efficiency of firms — Allen, 2005).

Despite the neglect of developing economies in the CC/VoC debate, the CC/VoC debate has huge implications for developing countries. These countries are concerned with how best to achieve economic growth under conditions where the assumptions of perfect markets, competition and information are far from satisfied. Different varieties of capitalism represent a fundamentally different ordering of state-society-business relationships and have different implications for economic performance or outcomes. This raises the fundamental question of what varieties of capitalism are more appropriate to sustainable development especially in developing countries.

The relative conduciveness or appropriateness of different varieties of capitalism to sustainable development lies in the differential conception of corporate governance. Economic theory suggests that the CME model is more conducive to sustainable development than the LME model. The LME’s view is premised on Adam Smith’s notion of the organization of the economy through the ‘invisible hand’ and its modern refinement, the first and second fundamental theorems of welfare economics (the Arrow-Debreu Model — see Allen, 2005). “The first theorem states that if the objective of firms is to maximize the wealth of their shareholders, and individuals pursue their own interests, then the allocation is Pareto efficient. The second theorem states that any Pareto-efficient allocation can be implemented as a competitive equilibrium, given appropriate lump-sum taxes. In this view, the role of the firm in society is precisely to create wealth for shareholders and this is embodied in the legal framework” (Allen, 2005: 165). The problem of the interests of other stakeholders in the economy (i.e., equitable income distribution, including inter-generational income distribution) is relegated to policies relating to redistribution through lump-sum taxes and/or charity.

The Arrow-Debreu Model assumes the existence of economies with perfect competition, complete markets and symmetric information. The CME model recognizes the reality of imperfect conditions and is concerned to ensure that firms are run in a way that efficiently utilizes societal resources. “For example, if there are externalities such as pollution, then maximizing the value of the firm is well known to cause a misallocation of resources” (Allen, 2005: 165). Allen argues that in the case of such externalities, firms concerned with the interests of a wider range of stakeholders are more likely to change their behaviour and produce the socially optimal level of pollution so that although it may not be possible to obtain efficiency, it may be possible to achieve a better allocation of societal resources in the interests of a broad category of stakeholders. This is equally true in the case of economic activities that have the potential to degrade the environment or natural resources (i.e., mining, oil and bioprospecting, commercial agriculture and fishing). In these instances, models of capitalism that put emphasis on the management of firms in the interests of shareholders are likely to generate more socially inefficient outcomes than ones concerned with the interests of a broader variety of stakeholders.

Despite this apparent relationship between the varieties of capitalism and sustainable development, neither the VoC/CC literature nor the climate change debate has focused serious research or policy attention on this linkage. This is the gap that this paper attempts to bridge. Just because the VoC/CC debate has neglected developing countries does not mean these countries do not confront policy choices implicit in the debate. Kenya is an example of a developing country that has attempted to address this dilemma — through a long running contestation over its variety of capitalism. In contrast to the German system of co-determination which puts an emphasis on the interests of employees, the Kenyan variety of capitalism (here labelled ‘stakeholder capitalism’) puts a lot of premium on the interests of producers (smallholder farmers, fisher folk) alongside those of the state, private sector actors and consumers. This paper traces this concern for producer interests to the nationalist movement for political
2. Stakeholder capitalism and the nationalist movement in Kenya

‘Stakeholding’ and its various derivatives (stakeholder economy, stakeholder democracy, stakeholder capitalism, stakeholder government, stakeholder company and stakeholder community) is increasingly the subject of much debate and controversy (Kelly, Kelly and Gamble, 1997). It is not the intention of this paper to delve into this debate beyond what is necessary to highlight the concepts relevant to this discussion. Broadly, ‘stakeholding’ entails the following critical concepts: ‘inclusion’, ‘participation’ (a holder is active rather than passive and is willing to engage with others who share common activities and concerns), ‘governance’, ‘accountability’, social justice (a meaningful stake requires action to address inequalities and barriers to a fully meritocratic society), ‘autonomy’ (individuals have control over their own lives and freedom to make choices) and economic efficiency (stakeholding is not about a fairer distribution of wealth in society, but the creation of more and/or different forms of wealth) (Kelly et al., 1997). The debate over stakeholding revolves around the ‘stake’ that individuals or groupings of individuals have in society/
public and private assets in Kenya. The colonial government’s response to this was the Swynnerton Plan of 1954. The Plan facilitated the co-evolution of technologies, institutions, organizational and management arrangements that were not only instrumental in facilitating the profitable participation of smallholders in commercial agriculture, but laid the foundations for peasant ownership and management in Kenyan commerce, agriculture and industry following independence. These innovations include: private land tenure, contract farming or public–private–peasant partnership company configurations, and state support of the African commoditization process through commodity research institutes, credit schemes and preferential policies for certain crops (Thurston, 1987; Ochieng, 2005). The Plan sought to establish technological, organizational and managerial capabilities and institutional and policy entitlements conducive to the development of an economy in which a majority of the population — peasants — could exercise ownership and management rights in commercial agriculture.

Prior to the Plan in 1954, Kenya Africans were legally prohibited from cultivating high value commercial cash crops such as coffee, tea and pyrethrum. But the Plan went beyond the simple legalization of African production of high-value cash crops to seek two fundamental objectives: a) the promotion of African commodity production through the provision of administrative, organizational, managerial and technological services and b) the establishment of private property rights in land. Private land tenure was viewed as a means of internalizing the benefits of innovative activities, providing economic incentives for productivity increases in agriculture, and solving the problem of chronic and costly litigation arising out of the customary land tenure system (Hebinck, 1998). The Plan had far-reaching consequences. It broke the monopoly of white settlers over commercial agriculture, enhanced the competitiveness of African agriculture by extending the politico-economic structure of agrarian institutions and organizations that had served white settler agriculture into African commodity production, increased the efficiency of land use through introduction of individual land tenure, and reduced the transaction costs of smallholder ownership and management rights by creating public–private–peasant business configurations (contract farming) and management models that included peasant participation (Ochieng, 2005).

Although the Plan only lasted five years (1954–1959), later governments continued to pursue policies and principles embedded within it, especially the notion of private property rights in land and the principle of extending market and state control over the African commoditization process, and multi-partite venture companies involving smallholder farmers. As a result of the Plan, smallholders (with a national average farm size under 2.5 ha) have come to dominate high value agriculture in post-colonial Kenya, through the contract production of crops such as tea, sugar, coffee, tobacco, flowers, fruits and vegetables (Republic of Kenya, 2004). Smallholders account for 70 percent of total marketed agricultural production in Kenya (Republic of Kenya 2004: 127–132; Ochieng, 2005).

Given that the Plan was a reaction to the Mau Mau War for independence, the first post-colonial government came under pressure to not only continue but to expand its key principles. As Kenya was a settler colony, white settlers and foreign capital dominated (in terms of ownership and management) the country’s economic sectors — agriculture, industry, commerce and even the bureaucracy. The attainment of political independence in 1963 was necessary but insufficient to address this problem. An economic strategy was needed that would gradually, efficiently and amicably address this whilst respecting the country’s property rights laws and observing the need for economic stability and growth. In 1965, the Kenya government came up with such a strategy — Sessional Paper No. 10 on African Socialism and Its Application to Planning in Kenya. This document, more than any other, went furthest in laying out the model of capitalism for Kenya — what it called a ‘mixed economy’ model. This ‘mixed economy’ model came to govern economic policy making and administration in Kenya from 1965 until the early 1980s when it was supplanted by structural adjustment programs.

Sessional Paper No. 10 of 1965 was essentially an expansion of the principles embedded in the Swynnerton Plan. It encompassed corporate governance innovations — business, organizational and management models — that were intended to address the colonial circumstances that had barred or excluded Kenya Africans from profitably participating in the country’s formal economic sectors either as owners of capital or managers of private and public assets. It went much further than the Swynnerton Plan in defining the organizing framework of stakeholder capitalism in Kenya through five key guiding principles: political equality, social justice, human dignity, private enterprise and mutual social responsibility (Republic of Kenya, 1965). In essence, it was an attempt at moderation of the LME/Anglo-Saxon variety of capitalism. It put great emphasis on the promotion of private enterprise and on ‘mutual social responsibility’ — proposing a development pathway in which the state and the market would both play key roles. It expanded the government role in directly productive activities through the establishment of new state-owned enterprises (SOEs) and joint public–private partnerships in agriculture, manufacturing, banking and commerce. It also enabled a steady expansion of controls on domestic prices, interest rates, foreign exchange, exports and imports through regulatory frameworks that increased government authority over the economy (O’Brien and Ryan, 2001: 485). The objective was to ensure that Kenyan economy and firms within it, were run in the interests of a wider spectrum of stakeholders than under colonial rule.
Thus, agricultural policies came to be premised on the principles of equitable income distribution, employment and self-sufficiency which led to subsidies and guaranteed prices for farmers of food crops and key commodities, price controls and inter-district or regional controls on the movement of cereals through state-owned marketing boards on the one hand and relatively more market-based pricing for cash crops on the other (Ochieng, 2005, ch.5). An import-substitution policy through public–private partnerships or joint-ventures was pursued in the manufacturing sector, directed towards enhancing the capacity of the domestic economy to produce consumer goods using locally available resources (Ndung’u and Mwega, 2002: 16).

An ‘Africanization policy’ in commerce, the civil service and public sector appointments was pursued in the interests of local ownership and management rights. ‘Africanization’ reflected the nationalist drive for equality, in the light of the privileges implicit in the racial stratification of the colonial order (Rothchild, 1970). In commerce, Africanization took the form of transfer of petty trade to indigenous Kenyans from non-indigenous Kenyans.

Sessional Paper No. 10 of 1965 was an attempt to reject both the Anglo-Saxon variety of capitalism with its perceived excesses of individualism and the Soviet variety of socialism with its hostility toward private enterprise. The Kenya government rationalized this variety of capitalism by arguing that Marxist notions of class conflict might be relevant in Europe but were irrelevant in Africa because ‘mutual social responsibility’ and a strong sense of fairness were central to traditional African democracy and would prevent individuals from using economic power to their advantage (Republic of Kenya, 1965). It gave rise to the foundations of a stakeholder variety of capitalism that had at its core, in selected sectors, industries or firms, a model of corporate governance that put great emphasis on local ownership and management rights. This took one form or another of joint-ownership and co-management. The transformation of the KTDA from a top-down and autocratic public–private–farmer company in which the state and its multinational company and development agency partners dominated ownership and management in the early 1960s, into a lucrative US$320 million turn over company, wholly owned and managed by 360,000 smallholder farmers by the year 2000 (Ochieng, 2005, 2007), and the replacement of a centralized management system with co-management in the management of Lake Victoria fisheries resources in the late 1990s exemplify this. These transformations entailed a series of corporate governance innovations that were frequently contested, reflecting the somewhat ‘fringe’ status of the stakeholder variety of capitalism in Kenya. In spite of this, the following case study will show that this model of capitalism, including a traditional variation of it, has succeeded fairly well in ensuring sustainable resource use, management and rural development in the Lake Victoria basin of Kenya, when it has been seriously employed.

3. Management of Lake Victoria fisheries resources in historical perspective

3.1. From traditional to centralized management

Lake Victoria is the second largest fresh water lake in the world. It covers an area of 68,800 km², with a shoreline of 3,440 km shared between Tanzania (51%), Uganda (43%) and Kenya (6%) (Wandiga et al., 2004: 13). About 30 million people in Kenya, Uganda and Tanzania depend on the lake basin for their livelihoods (Eggert and Lokina, 2004). Lake Victoria has an annual fish production of about 500,000 metric tons with an estimated value of about US$600 million (Ogwang et al., 2005: 1). Fisheries resources have long played an important role in food and rural development in the three East African countries by providing food, employment, foreign exchange, better incomes to fish factories, middlemen and non-fishermen before the early 1970s. After that, fishermen who own boats and fishing gear have especially benefited (Abila, 2000).

Until the early 1970s, Lake Victoria fisheries resources (the Kenyan part of it) were under a traditional management system that dated back to the pre-colonial times. In spite of both the Swynnerton Plan of 1954 and Sessional Paper No. 10 of 1965, both the colonial and early post-colonial governments ignored or neglected the lake’s fisheries resources largely leaving the management to traditional communities until the early 1970s. When the Kenya government did intervene in the early 1970s, it introduced centralized management, which went against the fundamental principles of both the Swynnerton Plan and Sessional Paper No. 10 of 1965. This can be attributed to two interrelated factors. The principles of stakeholder capitalism embedded in Sessional Paper No. 10 of 1965 were continuously contested. The pursuit of ‘stakeholder capitalism’ varied between and within sectors, being determined chiefly by interest group pressures and the politics of patron-clientelism based on an ideology of ethnic competition, which has long characterized Kenya’s political and economic development (Bates, 1989; Ochieng, 2005). As both the colonial and early post-colonial ruling regimes had ‘core constituencies’ (white settler farmers under colonial rule and smallholder Gikuyu and Kalenjin farmers in the post-colonial period) in the tea industry in the Central and Rift Valley Provinces, which have so far produced independent Kenya’s presidents, it suited their patron–client politics based on an ideology of ethnic competition to practice some form of stakeholder capitalism in the tea industry as opposed to the lake Victoria fisheries sector, which is located in Nyanza and Western provinces, long the bedrock of opposition politics in Kenya (Ochieng, 2005, 2007).

Thus, it is not entirely surprising that the government’s interest in the management of the fisheries shifted the management of the lake’s resources from the interests
maximization of foreign exchange earnings through increased fish exports. This orientation not only re-defined ownership and management rights of the lake’s resources (from the traditional definition) but was based on the misconception that fisheries resources were inexhaustible. These factors combined to alienate local fishing communities from management and utilization of resources that had been the bedrock of their rural livelihoods since pre-colonial times.

Besides alienating local communities, the consequences of centralized management included over-fishing, introduction of alien fish species such as the Nile Perch that has contributed to the extinction of more than half of the lake’s original 400 fish species, oxygen depletion, siltation, industrial pollution and eutrophication (Ikiara, 1999; Eggert and Lokina, 2004). This unsustainable use of fisheries resources has been compounded by technological advances, increasing local, regional and global demands for fish as human and livestock feed, open access property rights regime and weak enforcement of existing legislation especially the Fisheries Act (Abila, 2000). There has been a progressive decline in catch per unit effort (CPUE) and the proportion of immature fish in catches is increasing (Abila, 2000; Wandiga et al., 2004). Microbiological and chemical pollution (untreated sewage, animal and maritime transport waste, run-off and storm water, enhanced effluent and solids discharge and atmospheric deposition) is also on the increase. Presently, nearly half of the lake floor experiences prolonged anoxia (lack of oxygen) spells for several months of the year compared to 4 decades ago when anoxia was sporadic and localized ... Algal biomass concentration is almost 5 times greater in the surface waters today than reported in the 1960s ... which indicates higher rates of photosynthesis” (Wandiga et al., 2004: 14).

This paper argues that this degradation of the fisheries resources is in part a function of the model of capitalism and corporate governance that was established in the lake in the 1970s when the government replaced traditional management systems with centralized management. Centralized management had a more limited conception of stakeholders than the traditional management system.

In theory, the Kenya national fisheries policy appears accommodative of multiple stakeholder interests through its objective of achieving national food security through a) increased per capita fish consumption through the production of low cost protein food; b) generation of employment opportunities and incomes in fishing, fish processing and trading; c) improving the living conditions of fishermen and their families by maximizing economic benefits to them; and d) maximizing foreign exchange earnings. In practice, (i.e., through the implementation or enforcement of the Fisheries Act) the concern with maximization of foreign exchange earnings through increased fish exports superseded all the other interests (Ikiara, 1999; Abila, 2000; Owino, 1999). This undermined the sustainable use of fisheries resources as the centralized management system was skewed towards the interests of relatively ‘big players’ in the fish exports value chain (fish factories and their agents in production, pricing, marketing and processing and large scale fishers using modern fishing techniques such as trawlers) and away from small scale actors, most notably members of the local fishing communities (Abila, 2000: 14; Gitonga, 2005; Geheb, 1996).

This contrasts sharply with the period before the 1970s when Lake Victoria fisheries was under traditional management. Until the early 1970s, only small scale fishermen exploited the fisheries of Lake Victoria; fish processing and trading was mainly dominated by small scale operators, most of them women; there were few wholesale traders in fish and the few that were seldom gained control over the fishermen; income from fishing was evenly distributed within fishing communities; and few people owned more than one canoe or more grill nets than they were able to control themselves (Jansen, 1973; Butcher and Colaris, 1975; Owino, 1999). The turn of events after 1970 can be attributed to: increasing population and demand; advances in fishing technologies and a management system based on a variety of capitalism that puts emphasis on the interests of a limited category of stakeholders. As Abila (2000: 14) has observed, by the 1990s, local people had “progressively been edged out of production, pricing, marketing and processing” in the Lake Victoria fisheries value chains.

From the early 1990s, the increasing degradation of the lake’s fisheries resources catalyzed the search for innovative management systems across the three East African countries, Kenya, Uganda and Tanzania (Ogwang et al., 2005). At the turn of the century, this search converged onto a new management model that sought to reinstate ownership and management rights of local communities over the lake’s fisheries resources in order to enhance their sustainable use. This innovative model was co-management.

Although viewed as an innovative model for managing natural resources, co-management is not in fundamental respects unlike the traditional management system that had governed fisheries resources on the Kenyan part of Lake Victoria until the early 1970s. The co-management model shares two fundamental concepts with the traditional management system — community ownership and management rights over the fisheries resources. The traditional management system sought to ensure sustainable fisheries resource use and management (species diversity, abundance and rural livelihoods for fishing communities) in the interests of a broad variety of stakeholders within a given local fishing community. This was anchored in fishing communities’ perception of ownership and management rights towards the lake and its resources. Under
the traditional management system, sustainable utilization of fisheries resources was the collective responsibility of fishing communities. Fishing was a major source of food and income and there was communal perception among fishing communities that the lake and its resources belonged to them. Thus, it was their collective responsibility to ensure that fishing was conducted in a sustainable manner (Jansen, 1973; Geheb, 1996; Owino, 1999).

Traditional fisheries management was based on territorial user rights (Geheb, 1996). It vested management powers in clan elders whose jurisdiction extended beyond land to cover the water near the shores or the ‘kira line’ also known as ‘puodho’ or ‘farm-waters’ which implies ‘ownership rights’. Waters within a clan’s ‘kira line’ had restricted access whilst water beyond the ‘kira line’ (effectively out of reach of the clan’s available technology) was considered open access. The traditional management system had a restrictive conception of ‘open access’ (and thus an expansive conception of ownership and management rights) as some clans claimed that the ‘kira line’ extended beyond what the ‘eye could see’ (Owino, 1999). Within the ‘kira line’, clan elders strictly enforced fishing rules and regulations to ensure sustainable resource use within the lake in the interests of all members of the clan or community. Such rules and regulations included:

- strict observations of closed seasons (February–May, usually the long rains season and September–December or the short rains season);
- restrictions on canoe ownership and fishing gear;
- age and marital limits (those above 20 and married); and
- permissions to immigrant fishermen (or outsiders) from clan elders before they could fish within a clan’s ‘kira line’.

The closed seasons were considered fish breeding and spawning seasons. Fishing was prohibited during these seasons with people relying on agricultural produce, livestock, poultry and sun-dried fish (‘obambo’) caught earlier and preserved (Owino, 1999: 6). Restrictions on canoe ownership and fishing gear entailed allowing only two fishermen to own and operate beach seine nets in one beach. “These two people were to possess high moral values, as a prerequisite for acceptance, (morality in this context meaning, those who would give fish freely ... to community members who had no fishing equipment). This was seen as an effective way of redistribution” (Owino, 1999: 6). This system of giving freely to people who had no fishing equipment was known as ‘bira’ and it survived well into the early 1970s. Immigrant fishermen had to adhere to the rules and regulations of the locals, give details of where they had come from, and declare the type and number of their fishing gear. Marriage was considered a sign of responsibility (Owino, 1999).

These traditional rules and regulations created a well-functioning system of regulatory compliance, monitoring, equitable and sustainable fishing that served Kenya well into the early 1970s. Jansen (1973) estimates that in 1971 there were only 4,100 canoes, with about 11,000 men fishing from them either as owners or owners of fishing gear or as labourers in the Kenyan part of Lake Victoria. About 90% of these canoes were owned by people who possessed one canoe each. “The income from the lake was shared relatively evenly by the men who participated in the fishing operations … Respected clan elders still had an important say in the management of fisheries. The system of ‘bira’ was still practiced when the boats landed with plenty of fish” (Owino, 1999: 6). There was limited industrial pollution and no alien fish species.

The traditional system was helped by limited fishing pressure as a result of among others, a relatively low population, rudimentary fishing technologies and localized or domestic fishing markets. This is not to argue that the system was only sustainable under these conditions. As shall be shown in the following sections, the fundamental principles it shares with co-management and the fact that co-management has fared better than centralised management implies that the system could be adapted to changing demographics, technologies and markets. Instead of adapting the system to changing conditions, the Kenya government replaced it with centralized management from the early 1970s. In the 1950s, the Nile Perch was introduced into Lake Victoria although it took more than two decades to ‘boom’, its booming coinciding with the forceful pursuit of centralized management. Nile Perch production increased from 1,000 tons in 1979 to 325,000 tons in 1989 (Owino, 1999: 7). Its production has been declining since with only about 54,000 tons estimated to be have been caught in 1997 (Othina, 1999). However, the Nile Perch ‘boom’ transformed fisheries and fisheries management in Lake Victoria from a small scale affair into a global business. The East African governments introduced trawlers into the Lake and foreign investors entered the scene with investments in fish processing plants for both Nile Perch and *Rastrineobola argentea* (small sardine like fish, known as omena, dagaa or mukene in Kenyan, Tanzanian and Ugandan lakeside languages — Abila and Jansen, 1997). The introduction of the Nile Perch led to increased fishing efforts on a commercial scale, a new source of cheap protein and severe reduction in Lake Victoria’s biological diversity. The Nile Perch feeds on other fish and because of this, it is estimated that of the original 350–400 species of fish in the early 1900s, fewer than 200 remain (Brundy and Pitcher, 1995; Eggert and Lokina, 2004). Commercially, only three important species of fish remain: Nile Perch, Dagaa/omena/mukene and tilapia (Eggert and Lokina, 2004).

To cope with these dramatic changes, the Government of Kenya introduced a new Fisheries Act (1989, revised 1991) which outlined rules and regulations for the management of fisheries. This Act provided a legal reinforcement to the centralized management system introduced (administratively) in the early 1970s. It outlined
who could fish, where, when and how. The Fisheries Act sought to enhance centralized management of the lake’s resources. Virtually all aspects of the traditional management system, including community participation in management were discarded. The Act re-defined ownership and management rights over the lake and its resources. Where previously local communities perceived the lake and its fisheries resources as belonging to them and felt obliged to manage it in a sustainable manner, the Act forced them to view the lake and the fisheries resources as belonging to the government. Thus, it was the government’s duty to manage it in its own interest (Geheb, 1996; Ikiara, 1999; Owino, 1999).

“The changed role of the Kenya Government in fisheries management … has contributed to changed attitudes and perceptions of the fishermen towards the lake’s resources. In the pre-colonial time, during the colonial period and even up to the early 1970s, the local fishermen themselves were active in the management of the resources. The fishermen expressed and felt that the lake was theirs — it was their responsibility to manage the resources in a sustainable way. And when they successfully managed the fisheries resources, this was done with reference to their own accumulated experience and developed rules about who should fish, when, where and with what kind of fishing gear. It was not done with reference to any external act, rules or regulations. Many fishermen interviewed felt that this responsibility has been taken away from them” (Owino 1999, 7). In the words of one fisherman: “We no longer own the lake, we are only expected to fish and go away since it is the role of the Government to manage the lake” (quoted in Owino, 1999: 7).

With this level of disenfranchisement, it is little surprise that the centralized management system failed to reverse the over-exploitation of the fisheries resources. This was a failure of a management model (or variety of capitalism) rather than a failure or a flaw in the objectives. Many of the rules and regulations imposed as part of the reforms brought about by the Fisheries Act were intended to achieve objectives similar to those sought by traditional management. Consider this, for example. Both the centralized and traditional management systems had rules and regulations on who could fish, when, and how. Whilst the traditional management system successfully enforced these rules for centuries, the centralized management system found them anything but easy to enforce. The government’s main instrument for restricting who could fish, when and how, as provided by the Fisheries Act, was licensing. Theoretically, through licensing, only a limited number of fishermen, using appropriate/authorized equipment or fishing gear could be granted permission to fish in selected areas and seasons, thus ensuring sustainable utilization of fisheries. The government’s fisheries officers or the fish scouts, located at the beaches/villages were to enforce and monitor the implementation of these rules. This was the government’s basic plan for controlling illegal fishing and illegal fishing methods and equipment. It failed for a number of reasons, many of which can be reduced to the marginalization of local communities from ownership and management of the lake’s resources.

First of all, instead of using the licensing system to control access to and use of the lake’s resources, the government ended up using it primarily as a device for raising revenues either through taxes (license fees) or increased fish exports (foreign exchange and earnings from export certificates, fish factory and trader licenses etc.). Virtually anyone who could pay for a fishing license got one. (Ikiara, 1999). By emphasizing revenue collection rather than more broad-based rural development, the government shifted the management of the lake’s resources from the interests of a broad category of stakeholders at the local level to its own narrow interests. LME model of capitalism and welfare theorists would argue that theoretically, the government could have used the licensing system not only as an instrument for controlling access to fishing and fish stocks but also as a tool for re-distributing or sharing the benefits from fisheries through for example, the provision of social or other services to those within the community not directly involved in fishing. As shall be shown, this was scarcely the case.

The government’s management of the fisheries resources in the interests of a narrow category of stakeholders is manifested in its tax and credit incentives to fish factories and processors and its lack of quantitative and/or price controls on fish production and exports. Although the Fisheries Act placed some restrictions on certain fishing techniques, it did not place any restrictions on the number of fishing vessels or nets that one could own, unlike the traditional management system. The government provided low interest loans for constructing and equipping fish factories, low taxes or tax exemptions and duty exemption on essential factory equipment to fish factories.1 Taken together, these measures indicate that the government was more concerned about raising revenues and less about equitable and/or sustainable utilization of the fisheries resources. This led it to adopt a management system that marginalized the interests of local fishing communities to the advantage of the big players in the fish processing chain.

Centralized management also failed to achieve sustainable utilization of the lake’s resources because the position of the government fisheries officer, or the fish scout, displaced that of the clan elder and collective community management. This had serious consequences. To begin with, there were not enough fish scouts (or adequate equipment) to ‘man’ all of the 256 officially

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1 The government earns revenues by licensing fish processing and fishmeal factories, fish traders’ licenses and export certificates, registration of boats. Local councils and government cooperatives also raise revenue through levies charged on each Kg of fish sold to fish factories (Abila, 2000, 14).
designated beaches on the Kenyan part of Lake Victoria. The result was that some beaches fell under a management vacuum leading to a depletion of fisheries resources (Geheb, 1996; Abila, 1998). Due to poor remuneration packages, the fish scouts were susceptible to corruption, often allowing some fishermen to use illegal gears and methods in designated fish breeding and spawning bays (Owino, 1999: 8). Moreover, some fish scouts abused their powers by intimidating, threatening or demanding bribes from fishermen, thus alienating community members from collaborating with them in law enforcement.

“By doing so, the fishermen have become marginalized to the extent that many are convinced that the lake and the fish actually belong to the government … Their responsibility is therefore to use the resources in line with the government’s laid down conditions and requirements. When they see how the government officials behave by colluding with unscrupulous fishermen in the plundering of the fisheries resources, they understand it to be the order of the day and take part in the mismanagement. Their previous responsible attitude and practices have been undermined by the way in which fisheries officials behave while implementing the Fisheries Act” (Owino, 1999: 8).

This attitude was reinforced by the demise of the system of ‘bira’ which had underpinned equitable utilization of the lake’s resources under the traditional system. Consequently, the income gap between large scale often ‘foreign’ (non-members of local communities) fishers and small scale, predominantly local community fishers, widened. This occasioned increasing competition and conflicts between trawler and canoe fishermen. This in spite of the fact that trawling is prohibited within five nautical miles from any point on the entire shoreline of Kenyan waters — effectively the entire Kenyan part of the lake, and thus throughout the entire lake as Tanzania and Uganda have a total ban on trawling within their entire portions of the lake. Trawler fishers have lucrative relationships and partnerships with fish processors who prefer receiving fresh fish in huge quantities that only trawlers can deliver. Whilst trawler owners claim that trawling benefits the lakeside communities in many ways (e.g., directly and indirectly creating jobs), Abila (2000: 17) argues that “trawling destroys other fishing gear on the lake, and displaces local artisanal fishers, hence, it has a negative net effect on employment in the fishery. It is also largely non-selective, with long-term negative consequences on sustainability of the fishery”.

Trawling and other non-selective fishing methods such as ‘tembea’ (a form of drift net fishing) aggravate the problem of over-fishing. Over-fishing is reflected in declining trends in catch levels and average sizes of fish caught. Several studies indicate for example that Nile Perch catches have been on a general downward trend since 1991 (Othina, 1999; Wandiga et al., 2004; Abila, 2000). Boat catch rates reduced from a daily average of 400–500 kg in 1981 to about 80 kg per boat per day in 1997 (Abila, 2000: 18).

In sum, although centralized management was introduced in the early 1970s to deal with increasing population, demand and technological pressures on fisheries resources, it failed to achieve sustainable utilization of the lake’s resources. This section has argued that in large part this was because it sought to manage the lake’s resources in the interests of a narrower category of stakeholders than its predecessor — traditional management.

3.2. From centralized management to co-management: The Beach Management Units (BMUs)

As aforementioned, until the late 1990s, the three East African countries sought to manage Lake Victoria fisheries resources through centralized or direct command and control management systems that generally excluded local community participation (Ebong et al., 2003; Ogwang et al., 2005; Ogwang et al., 2006). Increasing demand and high prices for fish, especially Nile Perch increased both legal and illegal fishing efforts to levels that were not only unsustainable, but uncontrollable under existing centralized management systems (Ebong et al., 2003; Ogwang et al., 2005; Ogwang et al., 2006). This was the context within which a new form of fisheries management known as co-management evolved in East Africa in the late 1990s, under an organizational arrangement known as Beach Management Units (BMUs).

Beach Management Units (BMUs) refer to the organization of fisher folk at the beach (boat crew, boat-owners, managers, fish processors, fish mongers, local gear makers or repairers and fishing equipment dealers) within a fishing community (Ogwang et al., 2005). It is a form of co-management. The Kenya government defines co-management as ‘management in partnership’ that “encompasses various arrangements which formally recognize the sharing of fisheries management responsibilities between the department of fisheries and other institutions either public, or private who have interest in the sustainability of the resource” (Ogwang et al., 2006: 3). The government argues that within the right institutional framework, co-management allows the knowledge and understanding of all stakeholders to be reflected in decision making and for their various capacities and competencies to be harnessed in implementation (Ogwang et al., 2006). “This has the potential to improve the sustainability of fisheries resource exploitation, increase the efficiency of management and improve equity outcomes … Co-management arrangements can enhance the position of disadvantaged groups by giving them direct representation in decision making. By empowering fisher communities and giving them access to the benefits that can be derived from collective action, they can also serve to increase the security of fisher livelihoods (by reducing thefts, piracy and inter-group conflicts), the potential sustainability of fishing activities (and hence more catches), while improving value added (through
better handling facilities) and prices obtained by fishers (through collective bargaining with traders)” (Ogwang et al., 2005: 4).

The principle of co-management in fisheries management was adopted in Kenya in the 1990s upon the realization that without the support of various stakeholders or resource users in the industry “the decline in trend may not be reversed, thus deliberate measures are now being put in place to facilitate the sharing of responsibility in the management of this country’s fisheries resources” (Ogwang et al., 2006: 1). Consequently, the country started putting in place structures that finally established BMUs at all local fish landing stations as an organizational mechanism for broadening stakeholder participation in fisheries management. BMUs are not synonymous with co-management. BMUs had been in Kenya and Tanzania (which pioneered them in East Africa due to its Ujamaa policy or decentralized government which empowered local village governments) long before the concept of co-management. However, prior to the mid–late 1990s, they were not broadly representative and were either not formally recognized by national governments or involved in policy and decision making. For example, in Kenya, the government used BMU leaders, then known as beach leaders to collect revenues from fishermen and to disseminate information to them, whilst in Tanzania they were not involved in policymaking (Gitonga, 2005). BMUs were a much later concept in Uganda, but Uganda has since gone ahead to become the first East African country to domesticate the concept through primary legislation.

The inclusion of co-management into BMUs owes a lot to the advocacy work of the Lake Victoria Fisheries Organization (LVFO) in the mid-1990s. It was the LVFO that brought the three East African countries to agree on a regional approach to fisheries management, using the concept of co-management under the BMU organizational framework (Ebong et al., 2003; Gitonga, 2005; Ogwang et al., 2005; Ogwang et al., 2006). Although the BMUs in the three East African countries are still at different stages of development, and there are slight variations in the understanding of co-management, the three countries have agreed to harmonize the roles of the BMUs in order to facilitate sustainable management of Lake Victoria fisheries resources.

Typically, co-management strategies involve the inclusion of non-traditional decision-makers (that is other than state or private sector actors); participation of local communities in the management of natural resources; and consensus-based decision-making and power sharing arrangements. A BMU is made up of the BMU Assembly and the BMU Committee that it elects. BMU membership consists of boat owners, crew members, managers/supervisors, artisanal fish processors and traders, fishing gear and equipment dealers/repairs, boat makers, agents of industrial fish processors and other fisheries related institutions operating at the particular beach. To be a member of a BMU, a person must register him/herself and be vetted by the local authority/fisheries officer. In an echo of traditional management guidelines, BMUs require non-citizens to be in possession of valid work permits provided by the Immigration Department and to comply with requirements for non-citizens in the Fisheries Act (Ogwang et al., 2006). These procedures are designed to maximize broad-based support for the BMUs by promoting democracy, equity, transparency and accountability, since the way a BMU is constituted has great influence “on how far resource users and other fisheries stakeholders have ownership of its actions or a commitment to its objectives” (Ogwang et al., 2005: 6).

In Kenyan BMUs, co-management is being implemented through:

1. Development and capacity building of BMUs.
2. Capacity building of fisheries staff to undertake their new roles and functions within a management partnership framework.
3. Formation of BMU networks at sub-county/division, district and national levels, with linkages to local and national government and the structures of LVFO.
4. Linking co-management into broader development frameworks, to promote poverty reduction within fisheries management and development.
5. Enabling all co-management partners to participate in policy review and development, feeding in views and concerns from the fishing communities and other stakeholders into local, national and regional policy and plans.
6. Strengthening linkages between LVFO and the private sector processing plants and associations (Ogwang et al., 2006).

The shift from centralized management to co-management entailed a paradigmatic shift on the part of the government regarding the concepts of ownership and management of fisheries resources. As the government’s guidelines on co-management and BMUs now explicitly state: “The fisheries resources of Kenya and the waters within which they are found are a common property shared in the utilization by the people of Kenya. These resources are held in trust by the government on behalf of the present and future generation as is enshrined in the country’s constitution. The economic and livelihood gain of the resource to the fishing community cannot be overemphasized and as such their participation in the management, as owners of the resource, is paramount” (Ogwang et al., 2006: 4).

This paradigmatic shift has had a significant impact on the utilization of Lake Victoria’s fisheries. The former Director of Kenya Fisheries Department, Nancy Gitonga reports on the impact of greater stakeholder consultation that led to subsidiary fisheries legislation in Kenya in 2001: “Due to the involvement of stakeholders in policymaking process from the outset, the compliance level with the
closed season for fishing *Ratrineobola argentea* ... which was effected for three months, from 1st April to 31st July 2002 was high, between 60–85%, despite political interference with the ban at times. This has been an encouraging development, considering that closed seasons had not been imposed on the Lake Victoria fisheries for the last decade ... During the closed period, the fishers participated in the surveillance, especially by reporting those who violated the new regulation with respect to closed season. The resource users’ sense of ownership was clearly demonstrable during the closed season, as the fishing communities fully participated in the law enforcement” (Gitonga, 2005: 6). Gitonga concludes that the co-management “concept is rapidly gaining popularity because it is being viewed as a more tenable method towards achieving sustainable utilization of fisheries resources. The popularity of ownership concept is evidenced by the widespread formation of Beach Management Units ... the BMUs are being developed to help communities take the lead in fisheries management, in line with the government policy of community involvement in policy formulation and implementation” (Gitonga, 2005: 4).

In spite of these encouraging results, Kenya is yet to domesticate co-management as a primary legislation and it will take time to integrate or institutionalize co-management into local and national development frameworks (i.e., into a model of the country’s capitalism). Going that much further requires the country to resolve the debate, going back to *Sessional Paper No. 10 of 1963* (later supplanted by structural adjustment or a liberal market economy model of capitalism in the 1980s) about what model or variety of capitalism is more appropriate to its sustainable development. This paper has suggested that at least in the case of natural resources, with potentially huge positive and negative externalities, a stakeholder variety of capitalism might be more appropriate.

4. Conclusion

This paper has raised three critical propositions. Firstly, sustainable development requires a model of capitalism that allocates a society’s resources efficiently, where the definition of ‘efficiency’ is multi-stakeholder dependent. This paper has suggested theoretical and empirical reasons that make stakeholder capitalism more appropriate to sustainable development than other varieties of capitalism. Secondly, this paper has submitted that ownership and management rights (of natural resources) is a social, economic and political construct that is continuously contested. It has shown that the construction of ownership and management rights (over natural resources) has huge implications on natural resource management and sustainable development. Finally, this paper has proposed that for the sake of sustainable agriculture, natural resource management and economic development, African countries need to engage with the comparative or variety of capitalism debate, and decide for themselves a capitalist model that is more appropriate to their development needs.

It is worth stressing that the co-management system in the Lake Victoria basin is still in its early stages. Whilst it has succeeded in bringing back some sense of ownership and management rights among local communities and other stakeholders it is too early to determine whether it is sufficient to address all the problems of fisheries resource management caused by centralized management or other factors. For example, whilst compliance with ‘closed seasons’ is a positive sign, the restoration of the fisheries resources (i.e., recovery of lost species and maintenance of the aquatic biodiversity) requires more than this. However, experiences from co-management systems in other parts of the world suggest that if pursued rigorously and on a large scale, co-management has the potential to contribute to the recovery and sustainable utilization of the lake’s resources. For example, between 1993 and 1998, the Integrated Fisheries on Protected Areas Project in Laos, using indigenous knowledge and collaborative or co-management, set up 68 Fish Conservation Zones (FCZs) along the Mekong River which resulted in increased stocks of 50 types of fish (Scherr and McNeely, 2007). In the US state of Maryland, the Chesapeake Bay Agreements of 1983, 1987 and 1992 which committed the state to restore the bay to its former productivity and health have led to the recovery of several aquatic species through improved water quality as a result of, among others, improved nutrient management including significant reductions in the point source emissions of phosphorus and nitrogen (Scherr and McNeely, 2003: 158). This involved significant changes in the agricultural practices of local communities, including the adoption of some form of conservation tillage by almost half of Maryland farmers.

The threats to Lake Victoria’s fisheries resources are numerous, enormous and require considerable effort. Some of these threats are a result of centralized management (e.g., introduction of invasive species) while others emanate from elsewhere. For example, the explosion of blue-green algae caused by the run-off of agricultural chemicals from surrounding farms starves fish of oxygen and light and reduces the diversity of important aquatic plants (Scherr and McNeely, 2003). Eutrophication of the lake has led to the explosion of the water hyacinth — an invasive plant species that causes the lake water to stagnate, creating a breeding ground for mosquitoes and bilharzia parasites which both pose a serious threat to the health of the local communities. These threats suggest that sustainable management of the lake’s resources requires a multi-faceted but integrated approach — focusing on community livelihoods and health, conservation of aquatic biodiversity and restoration of lost species of fish. Whether the brand of co-management currently practiced in Kenya will be able to do this remains an empirical question. Further research is needed in this area. This paper can only
highlight the potential and apparent suitability of co-management approaches to this effort.

The fact that co-management and the stakeholder variety of capitalism from which it is derived is continuously contested in Kenyan politics implies that its sustainability is also determined by somewhat external factors, including most notably, the politics of patron–clientelism based on an ideology of ethnic competition.

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