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## INTEGRATION OF WATER SPACES INTO THE COMMON FOOD SYSTEM

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### ИНТЕГРИРАНЕ НА ВОДНИТЕ ПРОСТРАНСТВА КЪМ ОБЩАТА ХРАНИТЕЛНА СИСТЕМА

**Резюме:** Статията разширява дебата около климатичната политика и концепцията за справедливостта на храните отвъд сушата, за да се интегрират водните пространства като еднакво важни компоненти на хранителната система. Въпреки че изследванията се фокусират предимно върху земеделски аграрни движения и разселване, напоследък риболовците стават по-видимо замесени в дискусиите. По-малкият достъп до ресурси, задвижван както от изменението на климата, така и от индустриализацията на риболовния сектор, доведе до изключване на дребномащабни рибари от 80-те години на миналия век. Рибарите, които са лишени от средствата си за производство, се обединиха, за да формират социално движение, което се бори за местния достъп и правата на човека. Движението за справедливост в областта на рибарството възникна поради надежди за постигане на хранителен суверенитет, справедливост в климата и противопоставяне на разширяването на сушата чрез насипи. Както се вижда от примера в Южна Африка, участието включително на риболовните общности във формирането на политики и включването на техните усилия в по-големи наземни инициативи за справедливост на храните могат да повлияят на създаването на по-справедливо законодателство.

**Ключови думи:** климатична политика, хранителна система, индустриализация на риболовния сектор, продоволствен суверенитет, климатична справедливост

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## **BACKGROUND**

Small scale fishers are defined as people who fish to meet basic livelihood needs, traditionally operate near shore fishing grounds, employ low technology gear, usually engage in single day fishing trips, and participate in their own sale or barter commercial activity (Campling et al 2012). These fishers are deeply connected with the water ways they have inhabited for up to thousands of years. Strong cultural values continue for those who dwell along the world's coasts, which happen to bear the brunt of climate change related effects. Fish populations are increasingly dwindling due to increased demand and competition for finite resources (Mills 2018). This can result in the removal of fishers from traditional territory which puts livelihoods at risk and intensifies conflict. Thus two layers of exclusion occur, one caused by privatization and industrialization of fisheries. The second more recent form of exclusion has been a byproduct of climate change and mitigation strategies. Polanyi asserts that „enclosures have appropriately been called a revolution of the rich is against the poor“ (Polanyi 1944). Fisheries justice is defined as the collective struggle for human rights and the democratization of access, ownership, and control of fishing resources (Mills 2018).

## **DOMINANT NARRATIVES**

A dominant narrative concerning fisheries is that industrialized fish agriculture universally increases food supply and benefits international economies. The reality is that many local fishers are left behind and exploited, thus increasing food insecurity in their regions. The first form of exclusion felt by fishers largely stems from late 19th century technological advances. This rapid industrialization driven by refrigeration systems allowed for transnational transportation and opportunity for longer term storage (Mills 2018). The new array of choices and access to exotic fish permanently altered production patterns. The fisheries sector enjoyed an influx of investment, boat capacity, and wealth by the 1950s. Over the next 50 years the number of fish caught globally quadrupled from 20 billion to 90 billion (Mills 2018). During that time production became vertically integrated and mechanized large scale fishing initiatives expanded. The modern extraction methods often disrupt marine ecosystems and require far less human labor. The inability of small scale fishers to compete with large scale operations, increased unemployment, and the decrease in fish stock have combined to form a crisis Mills (2018). Marx would describe this ratio of constant capital such as equipment and tools

to variable capital such as human labor and wages as the organic composition of capital. As constant capital increases due to mechanization and investment in new technology, labor input is displaced and declines resulting in a industrial reserve army of labor (Marx 781-784).

Global demand for animal protein intake is increasing and fish currently accounts for about 17%. The per capita intake of seafood has gone up not just for human consumption, but also fertilizers and meal for livestock (Mills 2018). Thus it is consumed indirectly, creating a massive and complex fisheries industry that incorporates agrarian food systems. The supply of fish is managed by about 140 million people around the world who depend on fisheries for livelihoods. Loss of fishing grounds can occur because of „ocean grabbing“ which often includes ambiguous agreements and transactions in which foreign vessels are granted access to industrial fishing (Barbesgaard 2017). The agreements also establish grounds private and enclosed spaces without community input. The previously communal territory is lost, thus diverting resources from local populations and limiting food access. Marx calls this process primitive accumulation, and argues that it is a violent process of taking land (in this case water), enclosing it, and unjustly expelling people to form a poverty stricken proletariat (Marx 793). These desperate attempts to own large fishing territories likely stems from increasing pressure to produce more food for a growing population (Barbesgaard 2017).

Marine fisheries are not the only regions under siege, freshwater and brackish areas are experiencing similar processes. Fish farming, similar to intensive monoculture models on land, has gained popularity. It can be marketed under a „sustainable“ guise, however less human input means the loss of employment for fishers (Longo 2015). Aquaculture is often recommended as a remedy for fish stock over exploitation. Production of this method has quickly spread, doubling in size since the 1990s, and now fish farming provides about half of all the seafood consumed worldwide. The new flow of mechanized seafood products limits the majority of fisher people from participating (Longo 2015). This is an example of a positively marketed method to improve the food system having unintended consequences on those who work in the food industry.

Another dominant narrative is that overfishing is rampant and conservation initiatives are successfully implemented in the name of climate change mitigation. To an environmentalist any form of mitigation might be automatically considered a beneficial process, but often international policy makers, private sector tycoons, and even NGOs are unfamiliar with local conditions. The second layer of exclusion I present is less studied, but it has substantially exacerbated the enclosure of aquatic

resources (Barbesgaard 2017). Climate change, and perhaps more unexpectedly mitigation agendas, are responsible for displacement. Changing weather, flooding, and resource counts have resulted in forced migration and damaged infrastructure. Dam projects have historically been a way to develop fossil fuel alternatives and harness „sustainable“ energy. Companies are targeting waterways which has caused contamination, loss of fish habitat, and human displacement (Campling et al 2012).

The implementation of marine protected areas, when governments restrict or do not allow fishing activities that are ecologically important, has resulted in loss of fishing grounds for local people. On the surface these policies sound important and beneficial, especially expelling large companies from decimating wildlife populations. But these delicate zones, often breeding or spawning grounds, are usually shallow coastal areas that small scale fishers rely on for food security (Barbesgaard 2017). These people may have lived sustainably, without overfishing, in the landscape for generations when suddenly their access is denied. The „Blue Growth“ agenda has become popular globally, the clean carbon projects allow governments to buy credits by investing in the „protection“ of coastal areas. This is less about biodiversity conservation and more about the ability of marshlands, seas grasses, and algae to capture and store CO<sub>2</sub> (Barbesgaard 2017). It is a controversial way to engage in mitigation because offsetting emissions is not done domestically, but rather exported abroad often at the expense of indigenous populations.

This network of carbon credit trading has created a „carbon complex“ comprised of enclosed ocean spaces, mangroves, forests, and farmland under the premise of conservation. Sometimes these processes are interpreted more as land grabs because of the repercussions such as loss of livelihoods with no local input in decision making. This is similar to the impact of land based carbon projects such as REDD which affect forest dwelling communities (Barbesgaard 2017). Fishers' limited access to fish does not only threaten the food security of their families, but also the economies of countries with large fishing populations because of increased unemployment. Coastal regions in the Global South are very vulnerable to environmental crisis because socioeconomic health can largely depend on agricultural conditions whether on land or in water (Campling et al 2012).

Mitigation efforts can be an extension of privatization and enclosure. Mitigation programs on land have resulted in farmers and forest dwellers being disposed of their land, but this effect also impacts local fishers and their territories (Mills 2018). There are plenty of studies on small scale farmers engaging in a sustainable agroecology approach to

food production, but an aqua ecological approach is rarely discussed. This method employed on a small scale focusses on species specific equipment, following lifecycle and breeding patterns, protecting ecosystems, and adhering to limitations on catch (Mills 2018). By emphasizing the regenerative nature of their practices, some farmers have been able to propose alternatives to mitigation strategies in which control over resources is entirely redirected from communities into the hands of often foreign private and state actors. Fishers are beginning to attempt similar collaborations with authorities to develop effective and more equitable mitigation strategies (Mills 2018).

### **CASE STUDY**

BRICS countries are becoming hubs of global capital and centers for land grabs as the need for resources is expanding. Transformations are occurring in the socio economic relations between fishers and markets as large groups are disposed from their means of production. For example, in South Africa fishers are being forced to adapt and derive new forms of sustenance or to push back against unjust practices. Following Apartheid in 1994 the fisheries sector underwent transformation as a new democratic government dismantled the corporate monopoly structure (Isaacs 2012). New policies included the Marine Living Resources Act and the Policy on the Allocation of Long Term Fishing Rights but these largely benefited big business and excluded small scale fishers. In South Africa fishers' movements strive to establish alternatives to current dominant methods used to govern fisheries (Isaacs 2012). Rather than solely focusing on natural resource management and ignoring local narratives, a new system would have a more positive effect on socio political relations. South Africa presents as an example of how fishing communities are able to directly challenge government policy that neglects the rights of small sale fishers and bring about change (Isaacs 2012).

In 2007 a food price crisis sparked while BRICS countries were under the pressure of massive growth and rapid industrialization. The convergence of both issues altered global dynamics of food production (Masifundise 2014). Concern over industrial husbandry practices including antibiotics as well as warnings about the danger of eating too much red meat resulted increased demand for fish protein. The pressure on the fisheries sector was largely driven by the United States, China, and India (Masifundise 2014). Although South Africa has the smallest population and economy of the BRICS nations, it has one of the top capture fishing sectors in Africa. Its fish consumption „increased by 26%

between 1999 and 2012“. In 2012 fishing contributed about 435 million to South Africa's economy and has continued to grow (Masifundise 2014). Small scale fishing is widespread and provides livelihoods for many coastal communities. Though more than half of the commercial fishers in South Africa are subsistence fishers, they are often neglected in national policy in favor of large-scale operations geared toward meeting consumption demand.

The perceived injustice drove fisher resistance following the adoption of such policy in 2005. Fishing communities were deprived of access rights, so community organizations such as Coastal Links brought the issue to the Equality Court which ruled in favor of new policy development (Isaacs 2012). Representatives from fisher communities engaged in several years of consultations with local government and in 2012 the Policy for the Small Scale Fisheries Sector in South Africa was established. It introduced new fishery management strategies that emphasized human rights and community access. A branch was added to the Department of Agriculture, Forestry, and Fisheries in order to more effectively address local fishing rights and ensure implementation of the new policy (Masifundise 2014). The victory for South African fishers demonstrated the success of mobilizing vocal community leaders in natural resource politics.

In 2012 legislation emerged as a response to civil society pressure, potentially setting a precedent for future fisher policy. Coastal Links played a pivotal role in the development of the Voluntary Guidelines for Securing Sustainable Small Scale Fisheries in the Context of Food Security legislation (Masifundise 2014). The initiative was the result of 4000 representatives from communities, local governments, and NGOs driving change from the bottom up. Coastal Links facilitated effective communication and action between villages by publishing and proliferating „Small Scale Fisheries Policy: A Handbook for Fishing Communities“ (Masifundise 2014). The pamphlet provided fishers with an arsenal of knowledge concerning policy application and access justice initiatives. Two hundred sixty seven community leaders representing over 20,000 fishers are registered with the Department of Agriculture, Forestry, and Fisheries to receive community resource allocations promised in the legislation (Masifundise 2014). Fisher mobilization has engaged in prolonged insistence on follow through. Both of the policies mark a shift in the governance and perception of fishers sectors. The rights of those who have informally contributed to the global food system for generations are beginning to be formally recognized. South Africa has been a beacon for civil society groups including fishers, farmers, rural, and indigenous peo-

ples recognizing common struggles and seeking a united front against corporate control of the food system (Isaacs 2012).

## ANALYSIS

The relationship between food production justice movements and climate change accompanied by mitigation converged around the establishment of the International Planning Committee for Food Sovereignty in 1996 (Mills 2018). In recent decades fisheries justice movements have been able to work together against the negative effects of globalization of fish resources. The World Forum of Fish Harvesters and Workers was established in 1995 to fight for human rights and social justice in the fisheries sector. Since then, the annual Global Conference on Small Scale Fisheries began in 2008 to encourage transnational collaboration and activism (Mills 2018).

The 2015 United Nations Climate Change Conference in Paris was celebrated around the world and achieved mass media recognition, but a lesser known convention occurred that year as well. The People's Climate Summit brought fishers, farmers, and social movement representatives together to debate the effectiveness of the solutions being presented by world leaders, and to discuss environmental protection at the local level (Longo 2015). Many indigenous groups voiced apprehension that the carbon trading mechanism of the UNFCCC perpetuates an economic system that profits from the commodification of nature. Fishers shared common concern for the impact on coastal communities and the rapid transformation of the global food system (Longo 2015). The Summit highlighted commonalities between agrarian and fishery climate justice movements, and allowed budding fishery justice activists to build on agrarian food sovereignty strategies beyond agriculture. The alliance allows for stronger movements, effective negotiation tools, and learning from each others' experiences (Longo 2015).

Though academic research on land grabbing and diminishing access to land based resources is gaining popularity, fishers movements remain understudied (Barbesgaard 2017). Their plight in the context of climate change has largely been ignored despite the interconnected nature of land and water resources. The fisheries sector has been completely transformed by privatization and industrialized commodification. Changing consumption patterns have led to a massive increase in fish production carried out by large scale companies that prioritize large yields (Mills 2018). This has endangered small scale fishing which is more a matter of food sovereignty than market control. These people employ

sustainable often traditional methods that do not overexploit natural resources, therefore they should not be lumped together with big industry when access is restricted (Campling 2012). Small scale fishers operate in areas that are already vulnerable to climate change related disasters and are attractive for conservation projects. Though expansion of mitigation is important, when done poorly it can result in exacerbated dispossession and exclusion of fishers from territories (Barbesgaard 2017).

## CONCLUSION

Through this paper I do not argue that aquacology, urban agriculture, and small scale fishing have the capacity to feed the world, I simply assert that governance mechanisms and mitigation initiatives need to take fisher livelihoods into account. Increased participation in the policy making process is necessary because rights of fishers continue to be neglected, especially those who fish for sustenance. The exclusion has driven conflict with corporations and governments, and brings to question the commodification of nature and its subjection to neoliberalisation. Research on fishers' movements is important because it broadens academic understanding of transnational resource justice movements, and expands conversation on food politics.

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