

Blue Social Work and Atlantic Museum: a successful case study of what can be done to achieve a sustainable future

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Abstract.

This article presents the importance of blue social work as a strategy for social workers to use their environmental awareness and professional skills to build strategic alliances across professions for a fair sustainable development and alleviate poverty without damaging the environment. Using Atlantic Museum as a successful case study, it is demonstrated how blue economy can integrate art and culture with nature respecting the environment and how this strategy is the one that best defends the local communities, as it creates wealth and employment. The socio-economic evaluation of Atlantic Museum achieved very good results at most of the domains used in the Global Compact Model. Through the analysis of Atlantic Museum, we better understand why blue social work is based on the democratization of science and art and how social workers can support local based entrepreneurship, with a focus on innovation and job creation, on the development of social capital to create a new economic model that can solve societal problems with a deep respect by nature and spirituality.

Keywords.

Blue Social Work, sustainability, Blue Economy, Atlantic Museum, Global Impact Model.

Resumo.

Este artigo apresenta a importância do serviço social azul como uma estratégia para os assistentes sociais usarem a sua consciência ambiental e competências profissionais para construir alianças estratégicas entre profissões para alcançar um desenvolvimento sustentável justo e aliviar a pobreza sem danificar o meio ambiente. Utilizando o Museu do Atlântico como um caso de estudo de sucesso, demonstra-se como é que a economia azul pode integrar a arte e cultura com a natureza respeitando o ambiente e como é que esta estratégia é a que melhor defende as comunidades locais, na medida em que cria riqueza e emprego. A avaliação socioeconómica do Museu Atlântico alcançou resultados muito bons na maioria dos domínios utilizados no modelo do Global Compact. Através da análise do Museu Atlântico entendemos melhor porque o serviço social azul se baseia na democratização da ciência e da arte e como é que os assistentes sociais podem apoiar o empreendedorismo de base local, com um foco na inovação e na criação de empregos, no desenvolvimento do capital social para a criação de um novo modelo económico que pode resolver os problemas da sociedade com um profundo respeito pela natureza e pela espiritualidade.

Palavras-chave.

Serviço social azul, sustentabilidade, Economia Azul, Museu do Atlântico, Modelo de Impacto Global.

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1. Introduction

Facing today's and future social and environmental challenges, as well as the impact of natural and (hu)man-made disaster in all communities around the world, implies a big challenge to social work practitioners and educators in order to be prepared to act in uncertainty and in extreme conditions. As far as environmental and social challenges are concerned, Dominelli (2014: 338) "argues for the inclusion of environmental justice in contemporary social work practice as one way of promoting inclusionary social work that meets some of the challenges of the 21st century". The Blue Economy (Pauli, 2010) represent a sustainable and competitive business framework based on innovations and sustainable principles that offer investors and society financial, social, and environmental benefits to achieve a sustainable world. This is why this model of Economy is part of the main principles of the Circular Economy framework and a priceless base ground to design Occupational Inclusion policies as well as Social Work Employment Projects from a sustainable perspective and taking the Blue Economy principles.

2. Environmental driven social work: from green to blue

The Global Warming and environmental or man-made disasters, increase poverty and contribute to the grow of economic, social and environmental inequalities. It is clear that the idea of a continue economic growth is leading the world to a global chaos. Social workers should be actively involved on Sustainable Development Objectives (UN) and be able to lead communities to find more sustainable forms of socio-economic development.

The relation between social work, social justice and person-in-environment perspective have formed the foundation of the profession for over a century but now is time to focus on challenging the structures underlying environmental inequities (Philip,D, Reish, D, 2015).

It is urgent that social workers should integrate environmental concerns into their understanding of social justice, do its advocacy and help communities and their organizations to understand the links between individual and collective well-being depends on the manner as we care about the sustainability of our planet. In this regard, Williams (2015) emphasize the tremendous impact for social work if able to create social responses to environmental challenges.

Our commitment with social justice require from social workers the wisdom to use knowledge and skills to build strategic alliances across professions and disciplines that allows alleviate poverty without damaging the environment. Dominelli (2012) argue that in order to confront current environmental crises effectively, social workers must be able to think creatively and sophisticatedly, mixing different knowledge and skills.

As economic globalization has been a major obstacle to the development of a robust global environment justice agenda (Philip, D, Reish, D, 2015: 476), so social workers should reflect on the way



to increase the impact of green social work in communities. This process can be enriched turning green to blue, assimilating the concepts of Blue Economy and putting them into the social worker's agenda.

Green social work as a conceptual framework was a very important contribution to the development of social work as profession and to rise the attention to the need to be prepared not only to responses (service delivery) to environmental crises but as well to proactively addressing socio-economic disparities, consumption patterns, etc., and the need to be present in policy making structures.

It is important that social workers understand the complex relation between Climate Change, sustainability, economy and social justice. To Sauer and Ribeiro (2012), the connection between the social and the natural is usually limited to the purpose of internalizing ecological and technological norms to economic theories and policies, leaving aside the analysis of social conflict and political issues that cross the environmental field. These authors quote Vieira and Maimon (1993) to stands that the most devastating processes of ecological destruction, as well as social and environmental degradation (loss of soil fertility, social marginalization, malnutrition, poverty, among others) have been the result of inadequate use of natural resources which depends on technological patterns and a predatory growth model, which maximizes short-term profits, reversing their costs on natural and social systems. Pyles (2016) outlines neo-liberalism, the values of unlimited growth, deregulation, commodification and privatization of social services, individualistic approach to social problems as part of the problem. Carrol (2004) argue the impossibility for sustainability to be related to a consumptive lifestyle that seems to know no limit and for him "growthism" is a disease that need to be discussed

because the true sustainability requires a change in our fundamental values, it requires us to be fundamentally countercultural and revolutionary.

To face the violent threat to the Earth, a bluer action is needed. Marques (2016) argues the current dominant economic model, cannot eradicate poverty, hunger, emigration, war, the preservation of the environment and biodiversity, and is not contributing to the implementation of the Sustainable Development Objectives (SDG) in all the countries of the world. Models of a Community Social Work focused on alternative economic models are also claimed in the base of Community and Social Currencies in order to achieved these Sustainable Development Goals and a new Local Community Development (Fernández-Pacheco, 2017). These complementary and social currencies claim for Healthy Communities based on Healthy money (Greco, 1994) and can be a social base ground to build new economic scenarios, new strategies for social workers and sustainable futures.

As Bruckmeier (2016) points out the neoliberal "green economy" strategy, aiming more at an ecological modernization of the global economy than a transformation into a sustainable economic system. For him, the lack of natural and social resources for global industrialization and the global boundaries of natural resources use make further unlimited growth impossible.

To face this situation, Social Work needs to find a conceptual framework more connected with the reality of different countries around the world and Blue Economy can bring a new ideas and concrete solutions.

Despite increasing high-level adoption of the Blue Economy as a concept and as a goal of policy-making and investment, there is still no widely accepted definition of the term (WWF, 2015)



although there is a consensus that Blue Economy must respect ecosystem integrity, and that the only secure pathway to long-term prosperity is through the development of a circular economy.

For World Wildlife Fund the Blue Economy can only be sustainable when we also succeed in creating a sustainable economy on land – that is, an economy that restores, protects and maintains diverse, productive and resilience ecosystems, based on clean technologies, renewable energy and circular material flows.

Blue economy could be a path to social workers that supports a strong commitment with social and environmental justice. Blue social work believes and is based in the circularity principles of Blue Economy as sustainable business that evolves with respect not only for local resources, but also for culture and tradition; nature provides room for entrepreneurs who do more with less; nature only works with what is locally available; any by-product is the source for a new product; natural systems cascade nutrients, matter and energy, where waste does not exist (Pauli, 2011).

To Pauli (2010) the green economy requires to invest more, save some, payback over time and because of that only works for the rich countries. To him, Blue Economy is better because invest less, innovate more, generate multiple cash flow, create jobs, build up social capital, stimulate entrepreneurship, that allows achieve the real sustainability, understood as the capacity to respond to the basic needs of all with what we have.

Blue social work is based on the democratization of science to support local based entrepreneurship, it has a focus on innovation and job creation, on the development of social capital to create a new economic model that can solve societal problems with a deeply respect by nature and spirituality.

3. Challenges for Blue Social Work research and practice

In a complex society, social workers operate on different levels (micro, meso, macro) and to have a positive impact on social change, they need to support practice through research. This will allow understand the changing impacts of environment on people and communities. For that there are a need to adapt social work education, increase research and innovation, go deeper with interdisciplinary work. According to Williams (2015: 97) the growth of the profession in both traditional and new substantive areas (that is, sustainable development, social entrepreneurship, one health, economic development, and biodiversity) methodologically and politically supports the development of a set of challenges that will anchor the profession for the coming decade. For Green and McDermont (2010: 2428) the twenty-first-century social workers will work towards effecting the 'climates' that can sustain those conditions (social, ecological, biological, economic, political) essential to enhancing and maintaining human life and well-being. These authors outline the intersections of social work, environmental sustainability, community and economic development. New areas of work and research are available to social workers related with human impact of climate change, reducing carbon outputs, energy efficiency, (economic relief for poor families, or social support organizations), life styles, consumerism, food security, mobility, transition models, community gardens, green care, blue care, environmental education, risk analyses, delivery of services in disasters, etc. Park (1996: 320) argues environmental relationship, justice, and integrity must occupy a position of utmost priority for profession and requires an emphatic response from social workers. Other dimension of research is about decolonizing social work framework that includes a critical view



on the perpetuation of hegemonic colonialist legacies on disaster relief and recovery as well about a holistic/spiritually approach that integrate bodies, minds, spirits and recognizes the importance of culture and social identities of indigenous people and their relation with environment. As Pyles (2016: 9) outlines, a world view that frames land, sea, flora and fauna to be an extension of spirit, and equal in value to human beings. This perspective should be explored in blue social work practice and research, developing innovative approaches to use earth and nature as a therapeutic method. Healing by nature is increasing and need to be better understood and evaluated. It is important to shift the focus to understand nature's landscape and better understand our own interior landscape. As we understand nature as sustainer, mentor, and source of inspiration, we will be able to transform our own lives and the lives of our clients (Park, 1996: 322).

4. In the blue eye of complexity: Atlantic museum –a project that link social-ecological systems with economy and interdisciplinary knowledge

The Atlantic Museum is a case study of what can mean a sustainable development project. The importance of this project is double: it is developed according with sustainability, that is understood as all the interrelated activities that promote the long-term flourishing of Earth's human and ecological communities (Rockefeller, 2001) and, at the same time, has a powerful message about the need to protect oceans together and reflect critically on the current situation of Society, placing the immigration and refugees issue in our time at the centre of this reflection.

The museum is located about 12 meters deep, in the clear waters near the south coast of Lanzarote, in the Bay of Las Coloradas, covering an area of

2,500 square meters along, where are located 300 sculptures, accessible for divers and snorkelers, constituting a focus of tourism and cultural attention.

In its conception research activity is also included and It has been established that 2% of the income generated by the Atlantic Museum, will be used for research and dissemination of the richness of species and seabed of the Island, with the objective of putting in value the submarine platform of Lanzarote. This Museum got a great visibility and increase international projection of Lanzarote through the artistic work of Jason deCaires. In addition to this, since 2016 the Atlantic Museum has had a strong impact on media since the different phases of the project have been accompanied by communication actions with important media results, whether national or international.

The Atlantic Museum, was built on a sandy seabed devoid of life, is now an artificial reef of 2500 square meters (50 x 50 meters) which in just one year has already achieved a considerable increase in marine species such as angel sharks, barracudas and sardines, octopuses, sea sponges, rays, etc.

In addition to the direct positive impacts on the environment, it has achieved excellent economic and social results in several areas, namely environmental awareness, clearly contributing to the transmission of sustainability values and the importance of preserving diversity and local culture.

4.1 Atlantic Museum Impact Assessment through Global Impact Model

In 2016 Deloitte Consulting company has made a socio-economic evaluation about the impact of Atlantic Museum on Lanzarote island. For that, the firm used its own model, designed by the company and entitled Global Impact Model. This model allows determine the wealth generated in a country



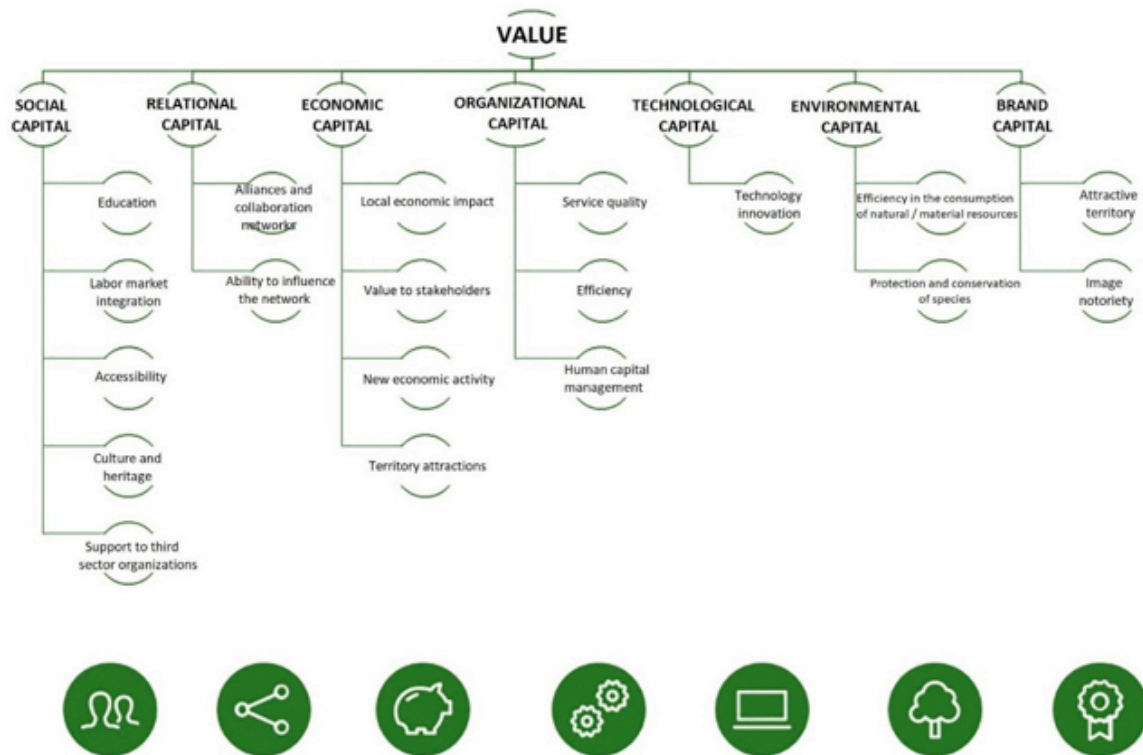


Figure 1. Global Impact Model tree (adapted from Deloitte, 2017).

or region by the development of an economic activity during a certain period of time. The Global Impact Model allows to separate the effect or total impact on the economy in two types of effects: direct or initial effect and indirect or inter-sectorial effect and allows to understand the impact of the studied activity produce, taking into account the interrelations that take place between the different economic sectors (Deloitte, 2017).

The conceptual framework used by the Global Impact Model is composed of 7 main capitals that are then divided into other scopes forming a tree of contributions as we can see at Figure 1.

³ Enterprise & Organizational Simulation and Modelling (EOMAS). Certification of diving companies accredited to operate at the Atlantic Museum. The creation of the EOMA network has a positive impact on the diving sector in Lanzarote, both in the companies that compose it and in third parties, through the transfer of organizational excellence and good practices, increasing the professionalization of a sector with growth potential.

The socio-economic evaluation of Atlantic Museum achieves very good results at most of the domains used in Global Compact Model. The impact of this project on the media around the world was enormous, reaching in 2016 a total audience of more than 870,786,843 people, which allowed to give a great visibility to the island as an integral tourist destination. According to Deloitte (2017) to the impact of this visibility is attributed a value of 65,172,241 €.

It was also significant it's direct and indirect impact on the creation and quality of employment, namely in the most connected to the project, such as diving centers. Of the 37 dive companies on the island, 81% are now integrated into the EOMA¹ network and almost half have conducted improvement processes with the aim of certification.

As we can observe, to invest on a sustainable, blue development that integrates art with nature

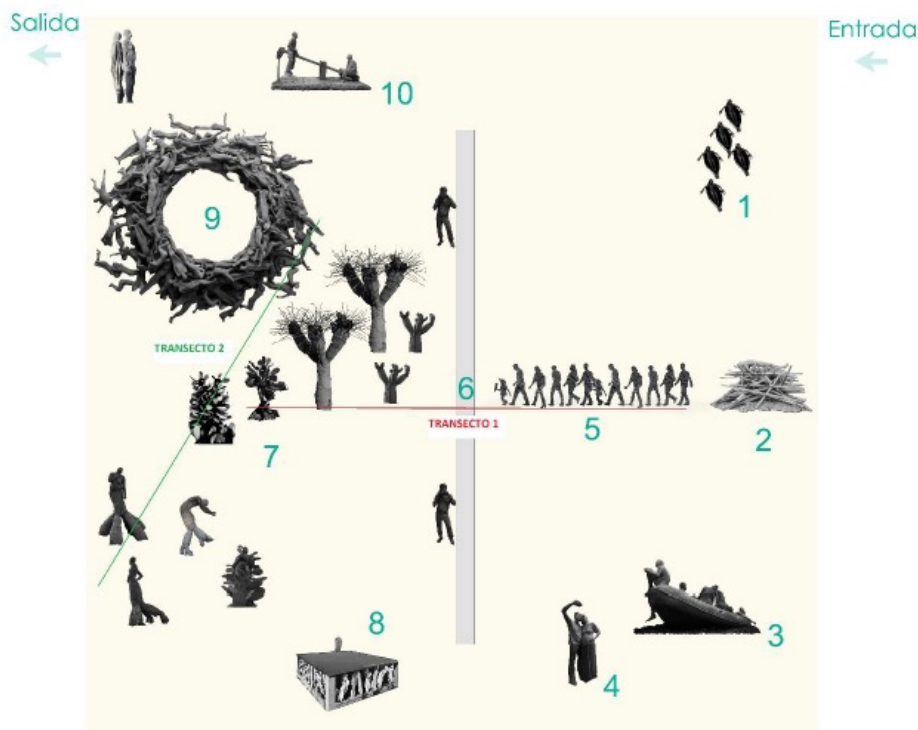


Figure 2. Video-transects (Dracaena, p. 10).

respecting the environment and this strategy is the one that best defends the local communities, as it creates wealth and employment.

4.2 Environmental assessment and research

The Atlantic Museum is a place for education, preservation and conservation of the marine environment and the nature of Lanzarote as an integral part of the human value system. It shows that it is possible to achieve balance and harmony between civilization and nature. The promotion, diffusion, conservation and affirmation of the value of nature and biodiversity of the island allows to position Lanzarote² as a very attractive place as sustainable tourism destination and

allows to project itself in the world as a territory that bets on the values of social and environmental awareness, creativity, innovation as tool for social and economic development.

The environmental assessment of the project was carried out by the company Dracaena - Environmental Consulting, which have done a systematic study of the area occupied by the Atlantic Museum, but also of control zones created for the purpose in the vicinity of the museum. The definition of a control zone with characteristics similar to the museum area was fundamental to evaluate the evolution of the system before and after the installation of the sculptures.

The methodology used was based on a sampling that allowed evaluate the physical and biological environment, the functionality and applicability of parameters that allowed to evaluate, over time, the changes that occurred in the biological communities. By January 2017, three samples were taken: one

² In Lanzarote there are other centers of Art, Culture and Tourism that contribute to project an image associated to the values of the nature and the conservation of the historical-cultural patrimony. In the environmental field we highlight "Cave of the Greens", "Jameos del Agua"; "Montañas del fuego" and "Jardín del Cactus".



in the pre-operational phase (January 12 and 14, 2016), another in the installation phase, six months after the installation of the sculptures on the seabed (12 and 13 June 2016) and finally another sampling in the installation phase (16 and 17 January 2017).

For the sampling, “transects” were defined that allowed to obtain a vision of the initial stages of the colonization process of the statues by the algae and sessile invertebrates, fish, etc. and to obtain a more complete information about the ecosystem formed by the museum (Dracaena, 2017). The “transects” were designed in order to register the species, their number and size and in addition to the direct observation was also used “videotransects” and the “quadrats”. To treat information several tools were used, namely the *Community Ecology Parameter calculator 1.0* and the *Coral Point Counter*.

In order to evaluate the impact of the Atlantic Museum on the environment, different parameters (diversity, abundance, biomass, sessile organisms, ecological indexes, etc.) and algae communities were evaluated before and after the installation of the sculptures according to the BACI (Before- after-control-impact).

After analysing the results, it was clearly demonstrated that there are large differences between the museum area and the control zones. In the area of implantation of the Atlantic Museum, there is more species richness, more abundance, more diversity and larger size of living organisms, more biomass.

According to Dracaena (2017) in just one year (from January 2016 - pre-operational to January

2017 - operational phase) the positive impact of the museum on the environment was enormous, both for mobile organisms and for sessile organisms and algae. In the museum area, the following results were obtained for mobile organisms:

- Specific **wealth** increased by 228.57%. It went from 7 to 23 counted species;
- **Abundance** increased by 346.67%. It went from 30 to 134 individuals counted;
- The **density** of individuals increased by 390.91%. It went from 0.11 ind/m² to 0.54 ind/m²;
- **Biomass** increased by 4,833.86%. It went from 94,76 gr. to 4,833.86 gr.

It is thus demonstrated that another development is possible and the Atlantic Museum is the proof of this. This project affirms the possibility of recovering the damages that man does to the environment and that it is possible to reach the balance and the harmony between civilization and nature. The Atlantic Museum is a place designed for preservation, conservation, education and science. The museum also works as an asset in the island's economy, as it strengthens Lanzarote's position as a world tourist destination, rich in natural resources, art, culture and with a recognized environmental sensitivity.

Starting from this point, social inclusion policies can be developing, not only to give training to vulnerable collectives in order to incorporate to projects like this, but also it's an opportunity to use this experience to design Social Work projects related to Functional Diversity Tourism related to diving, as we can see in experiences like “diveability” in the United Kingdom.³

³ More information of the Project in diveability.org



5. Conclusion

The Blue Economy, remember to all of us that the sky is blue, the ocean is blue and the Gaia seen from the universe is as blue as can be (Pauli, 2011). Blue social work, inspired by that, could develop new approaches to social and environmental justice and at some time fight global warming and all related problems. Etingoff (2016) argues that cities, rural areas, and entire regions must learn to adapt to natural disasters and long-term socioecological changes caused by a changing climate. To deal with Climate Change, Social Work should be more involved in environmental awareness and education, promoting entrepreneurial activities, doing cross disciplinarily research, supporting Local Community Development to achieve well-being through a real sustainable development. It is time to act, it is time to inspire others for the change. For Carol (2004: 4) the way to achieve environmental sustainability is through ecological living. The way to achieve ecological living is ultimately through spirituality. The changeover to ecological living requires a conversion away from the dominant paradigm or value system of our culture, and the active development of resistance to that value system. Such changeover requires rejection of that value system, the rejection of consumption and waste as a lifestyle, and the embrace of frugality as a core principle.

Deirdre Tedmanson (cited in Hessle, 2014) argue the importance of people be enabled to work together for an achievable and sustainable common purpose which aids their independence or communal interdependence, social and emotional well-being is enhanced (Taylor 2006; Dockery, 2009). Atlantic Museum is in line with what and show us how culture and art, business, science, civil society, and community can partners in harmony with nature, wealth for entrepreneurs, and opportunities for food and livelihood security for all. Environmental artists such Jason deCaires work with scientists, landscape designers, community groups, and public officials in order to produce public art that betters the environment and captures people's imaginations and helps them reconnect with their natural surroundings (Egan, D, Hjerpe, E & Abrams, J, 2011). Such approaches inspire and motivate social workers to envisioning the future and advocate for a new economy, one led by innovation and creativity to cultivate an ecological living. To achieve degrowth and sustainability, we need a fundamental transformation of our lives and an extensive cultural change, the only way to make sustainability justice, dignity and well-being possible for all.



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