

Gendering Environmental Security: why it matters when tackling ocean plastic pollution

Maureen Walschot
UCLouvain

On June 8, the world celebrated World Oceans Day. For a week, a series of international organizations and individuals have raised awareness around the ocean environment and stressed its importance. However, this week also recalled to us that ocean plastic pollution is a growing problem. By 2050, studies show that there will be more plastic than fish in the oceans¹. Scientists have found plastic debris, especially micro plastic, in places where humans have never set a foot before, such as the ocean floor. However, until today, the full security impact of this large-scale pollution on our marine environment and our health and livelihood is still unknown². Among these uncertainties are the different consequences on women and men due to biological and social attributes.

¹ Sardon, H., Dove, A. P., "Plastics recycling with a difference", *Science*, 2018, 360(6387): 380-381.

² Villarrubia-Gómez, P., Cornell, S.E., Fabres, J., "Marine plastic pollution as a planetary boundary

Following these reflections, this commentary paper aims to bridge the gap between feminist approaches to security and the growing environmental insecurity fostered by ocean plastic pollution. By highlighting the links between the environment, security and gender, one can acquire the tools necessary to produce an adequate framework to address these issues and ensure the security of men, women and the environment.

On the necessity to include gender in environmental security studies

The existing gender bias in international relations results in the issue of gender currently being taken as irrelevant. However, gender is an important component in any field, including that of environmental security. As

threat – The drifting piece in the sustainability puzzle", *Mar. Policy*, 2017.

environmental degradation is not gender neutral, there is a need to incorporate feminist approaches in order to achieve a more comprehensive and inclusive security.

In *Environmental security and gender*, Nicole Detraz divides the security and the environment field into three different approaches³. The first approach, the environmental conflict perspective, links traditional security issues with the environment, such as the impact of increasing natural resources scarcity on the stability of States. The second approach, the environmental security perspective, concentrates on the impact of environmental insecurity on human beings. The approach is therefore broader than the environmental conflict one as it does not only take into consideration the security of the State but of human security as a whole⁴. The last approach, the ecological security perspective, centers on the negative impact of human actions on the environment. In this approach, human beings are considered part of the environment and not external to it as it is in the two previous perspectives.

Due to their lack of gendered sensitivity, the three perspectives singled out by Detraz have failed to create comprehensive solutions for women. Nevertheless, gender-focused environmental security perspectives can remediate to this. Indeed, as Detraz explains it, “with the analysis of environmental issues that directly impact people’s lives, feminist environmental security scholars can determine particular gender-differentiated impacts,

responses, and contributions to environmental degradation as well as call attention to the gendered assumptions in society through which these issues are typically understood.”⁵

According to the author, the approach to environmental security is best suited to include a gender perspective in the debate on security and the environment. Therefore, from a gendered-sensitive environmental security approach, contextual and historic factors as well as power dynamics that fuel violence can be exposed. Since regular discourses shape the policy making process, bringing in new perspectives and approaches to address security and the environment in the most relevant way possible is necessary. Detraz has demonstrated through several case studies how the different perspectives that combine security and environment appear in discussions of real-world environmental issues while highlighting the contributions of a gender-focused environmental security perspective. This commentary paper adds to the discussion by analyzing the case of ocean plastic pollution.

Ocean plastic pollution, environmental security and gender: outline of an emerging analytical framework

The international community has recently emphasized the action and empowerment of women in the fight for the conservation of oceans⁶. Some initiatives to include gender into the issue of ocean plastic pollution have emerged, such as the third UN Ocean day

³ Detraz, N., *Environmental security and gender*, Routledge Research in Environmental Security, 2015.

⁴ Floyd, R., “Human security and the Copenhagen school’s securitization approach”, *Human Security Journal*, 2007, 5 (37): 38-49.

⁵ Detraz, 2015, *op. cit.*, p. 355.

⁶ UN Women, *Empowering women to conserve our oceans*, online

<https://www.unwomen.org/en/news/in-focus/empowering-women-to-conserve-our-oceans>

conference on Gender and the Ocean in 2019⁷ or the eXXpedition project which enhances the involvement of women in the study and prevention of ocean plastic pollution⁸. With gender mainstreaming, new issues arise within the study of security and the environment.

Considering marine plastic pollution was initiated with the production of the first plastic products, the phenomenon is not recent. However, the pollution of marine ecosystems and its impact on human health as well as on the environment has only received growing attention in the last few decades⁹. On average, 8 million tons of plastic products enter the seas every year around the globe¹⁰. Rising awareness amongst civil society has led to some behavioral changes in the consumption of plastic, especially single-use products. Some countries and global companies have been prompt to take measures on the issue through new policies and strategies. Nonetheless, the growing contamination of oceans is an irreversible phenomenon. As the issue is studied more, new concerns emerge. The impact of micro-plastic on the health of ecosystems as well as of human beings is now at the forefront of marine scientific research.

The different approaches to security and the environment developed by Detraz could shed light on many security issues in the case of ocean plastic pollution: from a national security approach of plastic waste trade between Western and Asian-Pacific countries or resource dependence patterns within States

which could affect internal stability (environmental conflict), through the impact of plastic pollution on food security and human health (environmental security), to the insecurity of marine ecosystems with the plastic contamination of oceans (ecological security). However, according to Detraz, “if we are to understand the ins and outs of these links, gender must be a focus of analysis due to its ever-present impact on how this topic is understood and its impacts on how environmental insecurity is experienced¹¹.” Ocean plastic pollution is a multifaceted issue that requires a gender approach. Consequently, this commentary paper briefly presents the input of a feminist environmental security discourse which allows for a comprehensive understanding of marine plastic pollution as a security issue.

Ocean plastic pollution is a result of the wide production and consumption of plastic in today’s society. Plastic is used for various use in everyday life, with half of the quantity produced being disposed after single use¹². According to Mendenhall, “an inherent characteristic of plastic – its durability – explains both its appeal as a product and the challenge it presents for waste management. Because plastics take a very long time to naturally degrade, almost all the plastic ever created still exists. Of the plastic produced over the last century, only 9% has been recycled, with 12% incinerated and 79% deposited in

⁷ More information on UN World Ocean Day website: <https://unworldoceansday.org/gender-and-ocean>

⁸ For more information, see the content available online www.expedition.com

⁹ Kirk, E.A., “Science and the International Regulation of Marine Pollution”, in: Rothwell, D.R. , Oude Elferink, A.G., Scott, K.N., Stephens, T. (Eds.), *Oxford Handbook on the Law of the Sea*, Oxford University Press, 2017: 516–535.

¹⁰ Jambeck, J.R., Geyer, R., Wilcox, C., Siegler, T.R., Perryman, M., Andrady, A., Narayan, R., Law, K.L., “Plastic waste inputs from land into the ocean”, *Science*, 2015, 347(6223): 768–771.

¹¹ Detraz, 2015, *op. cit.*, p.80

¹² Li, W.C., Tse, H.F., Fok, L., “Plastic waste in the marine environment: a review of sources, occurrence and effects”, *Sci. Total Environ.*, 2016, 566–567:333–349.

landfills or the natural environment¹³.” Despite a lack of consensus amongst scientists on the distinction between the different types of plastic, we use the common size categorization which differentiates between macro plastics, micro plastics and nano plastics. The first ones are plastic debris usually greater than 5 mm. Plastic debris are considered micro plastics when they measure less than 5 mm. Finally, nano plastics are plastic that is less than 200 nm¹⁴.

More than 80% of the plastic in oceans stems from land-based litter, while the rest originates from ocean-based sources such as fisheries and maritime navigation¹⁵. The type and efficiency of waste management as well as the location of the litter influence the flow of plastic debris entering the seas. In some parts of the world, 75% of the land-based marine litter is due to the non-existence of collecting litter strategies. The other 25% is due to failure in existing collection systems. However, despite some disparities, the issue of marine plastic pollution is a global phenomenon¹⁶.

For various reasons which will be explained in the following paragraphs, men and women are affected differently by changes in marine ecosystems and the relation between gender and the ocean has been an emerging topic of interest. More specifically, Lynn *et al.*'s research has revealed important findings regarding the existing links between gender

and ocean plastic pollution¹⁷. Some are related to insecurities associated with marine plastic pollution affecting women, while others concern the female role in the production of marine plastic pollution and the possible solutions to fight against it.

First, with regard to insecurities, studies have shown that health effects resulting from plastic exposure are different for men and women¹⁸. Differences due to biological factors, such as the hormonal system, menstruation, as well as pregnancy and breast-feeding, play a role on the effect of marine plastic contamination. In their study, Lynn *et al.* point out that “women’s unique biology can create specific vulnerabilities at certain times in their lives including during puberty, menstruation, pregnancy, when nursing children and menopause all of which can be affected by workplace and environmental exposures¹⁹.” Moreover, as Lynn *et al.* have observed in their research, gender differences exist regarding seafood and fish preferences, as well as their consumption frequencies. According to the authors, these gendered differences can cause differing exposure to plastics²⁰.” In addition, the economic impact on women’s earnings is another gendered aspect of marine plastic pollution. Up to 50% of the workforce in ocean jobs is female but women are still more vulnerable, in terms of wage and stability, than their male counterparts²¹. For example, it can be related to the type of fisheries women and

¹³ Mendenhall, E., “Oceans of plastic: A research agenda to propel policy development”, *Marine Policy*, 2018, 96: 291-298

¹⁴ *Idem.*

¹⁵ European Commission, Descriptor 10: Marine litter, online https://ec.europa.eu/environment/marine/good-environmental-status/descriptor-10/index_en.htm

¹⁶ Raubenheimer, K., McIlgorm, A., “Can the Basel and Stockholm Conventions provide a global framework to reduce the impact of marine plastic litter?”, *Marine Policy*, 2018, 96: 285-290.

¹⁷ Lynn, H., Rech, S., Samwel-Mantingh, M., *Plastics, Gender and the Environment, Lifecycle of Plastics and its Impacts on Women and Men, from Production to (Marine) Litter, Main Findings of a Literature Review*, Utrecht: WECF, 2017.

¹⁸ Caporossi, L., Papaleo, B., “Exposure to Bisphenol a and Gender Differences: From Rodents to Humans Evidences and Hypothesis about the Health Effects”, *Journal of Xenobiotics*, 2015, 5(1): 5264.

¹⁹ Lynn *et al.*, *op. cit.*, p. 19.

²⁰ *Idem.*, p. 2.

²¹ Make Sense, online www.ocean.makesense.org

men tend to work in and that are impacted differently by ocean plastic pollution²². Besides, the lack of studies taking into account gender, social status, and the specific living and working environments inhabited by women and men can potentially worsen the impact of plastic pollution on human health.

Secondly, women have been assigned socially constructed roles which make them part of the ocean plastic pollution problem. Consequently, they have to be incorporated into the making of solutions in order to effectively and comprehensively face this issue. For instance, studies have shown that buying basic consumer goods (food, clothing, household products and health items) is a task that women tend to conduct more than men, while the latter more often buy expensive goods such as cars and electronic equipment²³. Since the packing industry represents 40% of the global plastic production, and households use about 20% of these products²⁴, women are therefore important actors in global plastic production patterns. On the issue of waste management, environmental behavior studies “showed women tend to perceive various hazards as more risky in comparison to men and are less willing than men to impose health and environmental risks on others. However, waste management cannot generally be attributed to males or females, but there are gender roles, which may differ between cultures²⁵.” These different aspects of plastic consumption and its impact on women through the plastic contamination of oceans reveal the existence of a nexus between marine plastic pollution, gender and security.

²² Kleiber, D., Harris, L.M., Vincent, A.C.J., “Gender and small-scale fisheries: A case for counting women and beyond”, *Fish and Fisheries*, 2014, pp.1–16.

²³ Schultz, I., *Gender aspects of sustainable consumption strategies and instruments. Policies to*

Recent global action and international summits and conferences suggest a growing interest in the link between gender and a healthy marine environment. The feminist environmental security perspective mobilizes narratives that combine strong concern for environmental sustainability with a gendered view of human insecurity. Analyzing the link between marine plastic pollution and gender is necessary, not only because of specific biological attributes of women, but also because of social norms defining certain roles for women and men. Women are impacted differently by marine plastic pollution. Within a feminist perspective, insecurities are analyzed through a gender lens while gender-sensitive solutions are formulated to ensure human security, gender emancipation and environmental security.

The way forward with gender-sensitive solutions

Ocean plastic pollution is a global phenomenon that has been addressed through different perspectives linking security and the environment. This commentary paper has highlighted the need to add a feminist environmental security perspective to the analysis, gendering ocean plastic pollution. Given its recentness in environmental security studies, this new gendered discourse in the field of ocean plastic pollution is only emerging. However, policies that are not gender-sensitive can create or reinforce insecurity. Therefore, in order to prevent the lack of gendered sensitivity in solutions to face marine plastic pollution, and in order to formulate coherent and effective policies, a more comprehensive approach is necessary. According to Detraz, “a

Promote Sustainable Consumption Patterns, 2009, Available at:

<http://www.isoe.de/uploads/media/eupopp-gender-isoe-2009.pdf>.

²⁴ Lynn *et al.*, *op. cit.*, p. 2.

²⁵ *Idem.*

gender-focused environmental security perspective allows for more reflexive scholarship and policy making due to its recognition that not everyone experiences environmental insecurity in the same ways. By encouraging scholars to ask different questions and examine issues from a different point of view, this gender-focused environmental security perspective aids in our understanding of important livelihood issues²⁶.” As such, solutions put forward to strength the international legal and policy framework to reduce the quantity of plastic waste generated need to include gender. Not only because women suffer differently from marine plastic pollution, due to biological and social attributes, but because they can play an active role in the solutions that are to be implanted.

²⁶ Detraz, N., “Environmental Security and Gender: Necessary Shifts in an Evolving Debate”, *Security Studies*, 2009, 18(2):368-369.



Louvain-Europe (ISPOLE) de l'Université catholique de Louvain. Elles portent sur la géopolitique, la politique étrangère et l'étude des modes de prévention ou de résolution des crises et des conflits.

L'analyse des éléments déclencheurs des conflits et des instruments de leur gestion - sanctions et incitants économiques comme moyens de politique étrangère; crises et interventions humanitaires; rôle de la mémoire dans un processus de réconciliation, par exemple - est combinée à l'étude empirique de différends internationaux et de processus de paix spécifiques.

© 2020 Centre d'étude des crises et conflits internationaux

Le CECRI ne prend pas de position institutionnelle sur des questions de politiques publiques. Les opinions exprimées dans la présente publication n'engagent que les auteurs cités nommément.

Direction : Tanguy Struye de Swielande

Centre d'étude des crises et conflits internationaux
Université catholique de Louvain
Place Montesquieu 1, bte L2.08.07
1348 Louvain-la-Neuve
Belgique
www.cecrilouvain.be