# Social-Ecological Peace: a framework to analyze the transition from violence to peace in post-conflict areas, applied to Aceh, Indonesia

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## Abstract

The structures existing in wartime extend into post-conflict settings. Critical structural analyses expose these transitions. In this article, by engaging with two fields of conflict studies and political ecology, we develop the concept of social-ecological peace. This framework helps to understand how dimensions of prior violence transform into peace, and whether resilient structures and discourses or certain types of violence continue in different forms. The framework builds on Galtung's conceptualization of violence and peace, but realigns his "cultural violence" with Pierre Bourdieu's "symbolic violence." We add an ecological and historical dimension, based on Nixon's "slow violence." Applying the framework to Aceh, Indonesia, shows how cultural peace allows individuals to narrate and act out a new identity, and in this way, enables them to put into effect structures of a new era of social-ecological peace. At the same time, discourses that are inherited from wartime and transform into peacetime can carry violence with them. It is important to expose the structural effects of the very discourses that have supported Aceh's autonomy, so that they do not extend structural violence further into peacetime. This is likely to remain a challenge in a context where Aceh is still negotiating and struggling to enhance its political autonomy.

**Keywords**: Peace, violence, Galtung, slow violence, Aceh

## Résumé

Les structures existant en temps de guerre se prolongent dans les contextes post-conflit. Les analyses structurelles critiques exposent ces transitions. Dans cet article, en nous engageant dans deux domaines, les études de conflit et l'écologie politique, nous développons le concept de paix socio-écologique. Ce cadre permet de comprendre comment les dimensions de la violence antérieure se transforment en paix, et si les structures et les discours résilients ou certains types de violence perdurent sous différentes formes. Le cadre s'appuie sur la conceptualisation de la violence et de la paix de Galtung, mais aligne sa "violence culturelle" sur la "violence

symbolique" de Pierre Bourdieu. Nous ajoutons une dimension écologique et historique, basée sur la "violence lente" de Nixon. L'application de ce cadre à Aceh, en Indonésie, montre comment la paix culturelle permet aux individus de raconter et de mettre en scène une nouvelle identité, et leur permet ainsi de mettre en place les structures d'une nouvelle ère de paix socio-écologique. En même temps, les discours hérités du temps de guerre et transformés en temps de paix peuvent être porteurs de violence. Il est important d'exposer les effets structurels des discours qui ont soutenu l'autonomie d'Aceh, afin qu'ils n'étendent pas la violence structurelle en temps de paix. Cela restera probablement un défi dans un contexte où Aceh négocie et lutte encore pour renforcer son autonomie politique.

**Mots-clés:** Paix, violence, Galtung, violence lente, Aceh

## Resumen

Las estructuras existentes en tiempos de guerra, se extienden a los escenarios de post-conflicto. Los análisis estructurales críticos ponen de manifiesto estas transiciones. En este artículo, nos comprometemos con los campos de los estudios sobre conflictos y la ecología política, para desarrollar el concepto de "paz social-ecológica." Este marco ayuda a comprender cómo las dimensiones de la violencia anterior se transforman en paz, y si las estructuras y los discursos resistentes o ciertos tipos de violencia continúan en formas diferentes. El marco se basa en la conceptualización de Galtung sobre la violencia y la paz, pero realinea su "violencia cultural" con la "violencia simbólica" de Pierre Bourdieu. Añadimos una dimensión ecológica e histórica, basada en la "violencia lenta" de Nixon. Aplicamos el marco a Aceh, Indonesia.  La paz cultural permite a los individuos narrar y actuar una nueva identidad y, de este modo, les permite poner en marcha las estructuras de una nueva era de paz social-ecológica. Los discursos heredados de los tiempos de guerra pueden llevar consigo la violencia. Es importante sacar a la luz los efectos estructurales de los mismos discursos que han apoyado la autonomía de Aceh, para que no extiendan la violencia estructural en tiempos de paz. Es probable que esto siga siendo un reto, en un contexto en el que Aceh sigue negociando y luchando por mejorar su autonomía política.

**Palabras clave**: Paz, violencia, Galtung, violencia lenta, Aceh

## 1. Introduction

Many conflicts involve both an ecological and societal dimension. According to the Institute for Economics & Peace (2019: 43), the "effects of climate change pose a major challenge to peacefulness in the coming decade." The Institute emphasizes that "Asia-Pacific and Sub-Saharan Africa are the two regions most vulnerable to climate-induced security risks due to a high risk of exposure to natural hazards" (Institute for Economics & Peace 2019: 47). The Asia-Pacific is a resource-rich region, and conflicts over natural resource revenues are likely to impact a country's ability to manage climate-induced shocks, i.e. revenues can "worsen overall governance by exacerbating corruption, political divisions, civil conflicts, and social unrest" (Avalos *et al.* 2013: 8). For example in Myanmar, subnational conflict is amplified by armed organizations seeking control over natural resources, also to sustain these organizations' operations (World Bank 2019). In Papua New Guinea, violence and conflict have come about over resource development, in particular mining (see e.g. Kirsch 2003). In Indonesia, the prolonged wars in Aceh (Aspinall 2007a) and Papua (McCarthy 2007) also closely relate to access to natural resources. However, even if resource and societal conflicts often intersect, analytical frameworks to some extent fail to capture this interaction between conflict, peace, environment, and society.

Conflicts over extractive resources are often analyzed from a conflict studies or political ecology perspective, two fields between which there has been little engagement (Le Billon and Duffy 2018). This article attempts to respond to the call by Le Billon and Duffy to look for mutual synergies between the two fields. Hereby, it focuses on Johan Galtung's understanding of violence and peace, and further develops it using concepts from political ecology. When political ecologists refer to violence, they may not refer to Galtung's "cultural violence", but to "symbolic violence" as devised by Pierre Bourdieu (see e.g. Le Billon 2015; Springer and Le Billon 2016). However, as this article will show, Galtung's understanding of violence is in certain regards not too different from that of political ecologists. Galtung's "structural violence" has been criticized as "intrinsically value-laden and devoid of substance. It could be taken to mean anything one dislikes" (Miall 2011: 2079). In light of such criticism, Galtung appears to be closer to political ecologists who conduct research out of a "normative concern" (Le Billon 2015: 606) and engage in an "ethically engaged positionality" (Le Billon and Duffy 2018: 243). As the intention of this article is to devise a framework to understand persistent forms of violence in a process of transitioning from a situation of conflict towards peace, the article also emphasizes

a historically-grounded use of Galtung's conceptualization of violence, which is again informed by political ecology (Le Billon 2015; Le Billon and Duffy 2018). And finally, we extend Galtung's definition of peace and conflict with an ecological dimension, which aligns with research in the field of political ecology (see e.g. Le Billon 2015).

The framework shall serve as a "normative benchmark" to assess what persistent forms of violence need to be considered for a transition towards peace in a post-conflict situation. It will, therefore, be anchored in an ecocentric paradigm. Ecocentrism states that nature has not only instrumental but also intrinsic value (Piccolo 2017). Ecocentrism is in opposition to Anthropocentrism, according to which nature needs to be protected only to the extent that it supports human existence. Ecocentric approaches see all of the multi-layered parts of the biotic community as equally valuable (Eckersley 1992; Pickett and McDonnell 1993). The need for a healthy ecosystem (Rapport *et al.* 1999; Rapport and Maffi 2011) is a requirement not only of humanity but of all living entities. We consider such an approach appropriate in the epoch of the Anthropocene (Biermann and Lovbrand 2019) because even if dynamics within ecosystems change due to anthropogenic influences, ecosystems still have their own "integrity, stability, and beauty" (Leopold 1949: 224-225). By taking an ecocentric perspective, we hence deliberately emancipate "nature" from humanity in a time when it is increasingly engulfed by human influences.

The framework responds to some extent to the criticism that political ecology research may not be overly "motivated by the resolution of environmental conflicts" (Le Billon 2015: 600) with our focus on a transition towards peace, by engaging with conflict studies, and with Johan Galtung's *oeuvre*. The article contributes to political ecology by providing a more differentiated understanding of Galtung's conceptualization of violence for the field.

We introduce our framework in two parts. First, we determine the extent to which violence against humans and nature still persists in a post-conflict area through an extended definition of violence. We then define "Social-Ecological Peace" as a benchmark to assess what forms of violence hamper the transition towards peace in a post-conflict situation. We then apply the framework to post-conflict Aceh, Indonesia.

## 2. An extended definition of violence

We first introduce the definition of violence as conceived by Johan Galtung, and its relation to Pierre Bourdieu's "symbolic violence." Then, Galtung's conceptualization is extended in two ways: by including nature into a conceptualization of violence and peace requires shifting away from an anthropocentric to an ecocentric perspective. Secondly, the framework's historical dimension is introduced. Violence is understood as changeable over time, and it may transform from one dimension to another.

*A brief summary of the definition of violence by Johan Galtung*

The *oeuvre* of Johan Galtung is rich and manifold, and only a concise summary of his conceptualization of violence can be given. For Galtung, violence is not simply direct physical and/or verbal action towards the physical and mental health of another human being, but violence is also present in social relations. Both direct and structural violence impede humans from actualizing their somatic and mental potential (Galtung 1969: 169). Each expression of violence is legitimized by cultural violence (Galtung 1990). In summary, Galtung divided violence into three dimensions: direct violence, structural violence, and cultural violence (Galtung 1990). One important difference across these three dimensions is "the time relation of the three concepts of violence. Direct violence is an event; structural violence is a process with ups and downs; cultural violence is an invariant, a 'permanence' …, remaining essentially the same for long periods, given the slow transformations of basic culture" (Galtung 1990: 294). Transforming forms of violence depends on how slowly these expressions of violence change.[2]

Expressions of violence impact human needs differently. Galtung identified survival needs, well-being needs, and needs for freedom and identity as the basic needs (Galtung 1990). In our framework, we merge

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[2] Galtung also distinguished between *intended* and *unintended* violence, where direct violence is presumed to be intended, and structural violence is unintended (see Galtung 1969). However, this distinction was not always maintained in his work (see e.g. Galtung 1996: 31). Furthermore, underlying structural violence may also be the result of an intention. This is why this additional distinction between intended and unintended violence is not included in this article.

survival needs and well-being needs into well-being needs because they are on a continuum, differing by degree. For instance, actions can affect well-being (needs) by leading to illness or misery, and possibly to death (survival need).

*A refined understanding of cultural violence*

Galtung's structural and direct violence concepts have been mentioned and applied to some extent by political ecology scholars since their publication in 1990 (see e.g. Le Billon 2015; Navas *et al*. 2018; Nixon 2011a; O'Lear 2016; Springer and Le Billon 2016). However, instead of "cultural violence", political ecologists at times refer to Bourdieu's concept of "symbolic violence" (see e.g. Le Billon 2015; Springer and Le Billon 2016). It is important to review possible differences and similarities between these two conceptualizations.

Bourdieu understands "symbolic violence" as "a gentle violence, imperceptible and invisible even to its victims, exerted for the most part through the purely symbolic channels of communication and cognition (more precisely, misrecognition), recognition, or even feeling" (Bourdieu 2002: 1-2). This understanding of symbolic violence as exerted through cognition to some extent resonates with Galtung's understanding of cultural violence as changing "the moral colour of an act" (Galtung 1990: 292) from wrong into right, or acceptable. Another expression of cultural violence is to make reality opaque, i.e. a violent act or fact is not seen as violence (Galtung 1990).

In similar ways to cultural violence being "…used to legitimize violence in its direct or structural form" (Galtung 1990: 291), Bourdieu saw symbolic systems as instruments to legitimize the "domination of one class over another" (Bourdieu 1979: 80). With his definition of "culture" as "the symbolic sphere of our existence" (Galtung 1990: 291), "cultural violence" and "symbolic violence" are semantically close.

While symbolic violence and cultural violence are similar in their signification of a certain expression or dimension of violence, they differ in the extent that they are embedded in different theoretical traditions. Galtung's conceptualization "bears the impress of its genesis during the high era of structuralist thinking that tended toward a static determinism" (Nixon 2011a: 11). In his most prominent writing about the three dimensions of violence, we find direct, structural and cultural violence conceptualized seamlessly in a "causal flow" (Galtung 1990: 295).[3] Bourdieu, however, was interested in processes of symbolic production, i.e. agency and structures that create symbolic systems (Bourdieu 1979, 2002). He differentiated structures along their relation to agency as e.g. 'structuring structures', 'structured structures', or 'instruments of domination.' For our focus on a transition from a state of violence to peace, we will use "cultural violence" in line with such an understanding, i.e. as violence that legitimizes direct and structural violence, while at the same time also being subject to transformation when (groups or alliances of) agents (try to) undertake changes in the instruments and means of its production. Otherwise, a structuralist approach would not be able to explain how "counter-narratives" are produced by certain actors to de-legitimize certain research practices for example (see Dunlap and Jakobsen's [2020] emphasis and further development of "extractivism"), and hence would not support an understanding how a transition takes place away from cultural violence.

*Inclusion of nature*

A social-ecological definition of violence not only refers to impacts on humans affecting their actual somatic and mental realizations, rendering them below potential; but also to ecosystem health needs, understood as troubled by human interventions.[4]

For the purpose of this framework, the state of nature is specified as "ecosystem health" (De Kruijf and Van Vuuren 1998; Rapport *et al.* 1999; Rapport and Maffi 2011). A healthy ecosystem is defined as having the capacity to respond to perturbations and to provide ecosystem services to all living entities and its environment (Rapport *et al.* 1999: 85). It has three properties: organization, vitality and resilience (Rapport and Maffi 2011). The organization of ecosystems constitutes their capacity to maintain their biotic structure, their characteristic biological diversity, and their interactions between species and with the abiotic environment. "Vitality" is the

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[3] In Galtung's rich and multifaceted *oeuvre*, structuralist influences diminish over time. For example, in Galtung (2010: 21), he writes that there is "nothing 'neutral' or 'objective' about this structure" that science is embedded in. He also refers to "producers and consumers" of knowledge developed by science as a culture.

[4] Galtung also refers to violence against nature in his work (e.g. Galtung 1990, Galtung 1996). However, his focus remained on social peace, and nature was not systematically incorporated in his frameworks for conflict, violence or peace.

capacity of ecosystems to maintain their function for even more complex ecosystems. "Resilience" is the capacity of ecosystems to rebound from perturbations (Rapport and Maffi 2011).

As mentioned above, Galtung understands cultural violence as the intellectual justification for, or legitimization of, direct and structural violence (Galtung 1990; Galtung and Fischer 2013). Cultural violence may be incorporated in theories, discourses or narratives that support nationalism, racism, or sexism, through education, the media, literature, film, or even street names or monuments celebrating war "heroes."

Theories or paradigms of development or political paradigms that prioritize economic growth and neglect ecosystem health can also legitimate cultural violence. Neo-liberalism or the Washington Consensus are examples (Bokpin 2017; Shahbaz, *et al.* 2015). Cultures of consumerism can legitimize violence against nature, when people aspire to find meaning, contentment, and acceptance primarily through what and how much they consume and possess, without considering the implications for the planet (Assadourian 2010; Ekins 1991). Even climate science is questioned, since its underlying ontologies and use of data can provide legitimization for forms of carbon management, for example, considered detrimental to particular populations (O'Lear 2016).

Structural violence is when social institutions like norms and regulations hamper people from meeting their basic needs (Galtung 1990; Galtung and Fischer 2013). Structural violence is very closely linked to unjust social relations (Farmer 2009). Actors performing violence are not physically present, but violence is woven into the social structure and appears as unequal power and unequal life chances (Galtung 1969: 171; Farmer 2009).

Structural violence against ecosystem health exists when there is a lack of regulation to preserve nature. An example is the regulation of Foreign Direct Investment (FDI), where it results in environmental degradation in developing countries (Bokpin 2017; Shahbaz *et al.* 2015), because an implementing agency disregards those regulations. For example, the Extractive Industry Transparency Initiative (EITI) standard has not been able to address social environmental impacts of extractive industry practices (Yanuardi *et al.* 2021; Magno and Gatmaytan 2017). Structural violence can also exist as "slow violence" against nature (O'Lear 2016).[5]

According to Galtung (1990; Galtung and Fischer 2013), direct violence is exercised in intentional, directed actions by a person or group against a specific group or person, and prevents humans from fulfilling their basic needs (Galtung 1990; Galtung and Fischer 2013). Examples are detention or expulsion. People cannot satisfy their need for identity if there are direct violent actions that exclude or alienate them. Accordingly, direct violence against nature arises when human action has an immediate effect on ecosystem health, e.g. by means of the extraction of "natural resources" and emission of pollutants that impact a healthy ecosystem beyond the rate of recovery (e.g. a major oil spill).

Violence to society and nature can hence take different forms that together define the state of social-ecological violence. An analysis and assessment of post-conflict areas, therefore, has to take into consideration the above dimensions.

*Including time*

For the inclusion of a time dimension to violence against nature, we build upon "slow violence" by Rob Nixon. Nixon (2011a: 2) defines slow violence as "a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all." Slow violence depends on nature as a medium to take effect, and often occurs over long time periods, at a different location, or at a different scale (e.g. climate change occurring as a result of greenhouse gas emissions, or changes in DNA as a result of nuclear fallout). Nature is a medium for, but it is also susceptible to, slow violence. There are also human impacts: "[c]asualties of slow violence – human and environmental – are the casualties most likely not to be seen, not to be counted" (Nixon 2011a: 13). For humans, "slow violence"

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[5] O'Lear's (2016) understanding of the role of epistemic communities in climate science comes close to Galtung's definition of "scientific colonialism" in an opinion piece about a social science research project. This is where he wrote that scientific colonialism is "that process whereby the centre of gravity for the acquisition of knowledge about the nation is located outside the nation itself" (Galtung 1967: 13. See also Galtung 1996: 36, for a different instance where he criticized domination by scientists, in a different field).

takes place "gradually and out of sight", and can hence be subject to manipulation and "rival regimes of truth" (Nixon 2011a: 47). Nixon (2011a) emphasizes the need to narrate and measure the existence of slow violence.[6]

There is a delayed build-up of the effects of violence. A major oil spill, which is direct violence against nature, also has slower effects that extend over time. Soil exhaustion builds slowly but can result in erosion events and a complete loss of the organization, vitality and resilience of the soil.

Structural violence and cultural violence can continue across generations. Therefore, if we want to understand today's violence, we need to understand how far structural and cultural violence have been inherited from the past. This also implies that over time, one dimension of violence may transform into a different dimension, e.g. from structural violence to direct violence and *vice versa*. Understanding violence as dynamic will help better recognize the – at times perceived as "sudden" – emergence of a form of violence as a result of a transformation or translation from pre-existing structural or cultural violence.

This understanding of different dimensions of violence transforming over time is derived from Galtung's "violence triangle" (Galtung 1990: 294), which sets the three dimensions of violence in a causal relationship. While causal relationships implicitly include a time dimension, we want to make the latter more explicit to allow for an intergenerational analysis of the transformation of different dimensions of violence over time. Additionally, the time dimension connects better with natural processes and "slow violence." It also allows to move away from structuralist causal relations to make possible the inclusion of agency over time. Agency again makes possible an analysis of who carries violence further. While the focus using this framework is on hegemonic structures, discourses or actions, "counter violence" by non-hegemonic actors can lead to prolonging or ending violence.

As the three dimensions of violence are now seen as having the potential to transform into each other over time, we do not use the term "violence triangle", but an "indefinite violence cycle."

Structural violence among humans may hence ignite direct violence and cultural violence. Regulations that foresee societal segmentation based on race in colonial eras nurtured cultural violence to legitimize such colonial practices. Examples from Indonesia include social stratification, which saw the Dutch community at the top of an ethnic hierarchy, the Chinese and Arabic community as second-class citizens, and the 'inlanders' at the bottom (Fasseur 1997). Structural violence laid the ground as citizens experienced discrepancies in access to certain (political) economic resources leading to economic inequality. Social segmentation was then justified through theories of race and superiority. In the same way, a lack of forestry regulations, or a lack of monitoring of logging, which is structural violence, can lead to deforestation, which is direct violence. The excessive use of pesticides in agriculture is also a form of structural violence against nature leading to direct, slow violence (Navas *et al*. 2018). Apart from these examples where violence transforms from one dimension to another, but remains with the same agents, other examples exist where transformation from one dimension to another is a result of counter-violence. For example, violent confrontations between protesters against hydropower plant building and the police (Navas *et al.* 2018) are evidence of a transformation from structural violence to direct counter-violence.

Direct violence can ignite structural violence and cultural violence as well. After a war, the manifestation of massive direct violence, a conqueror will dominate access to political and economic resources and is likely to exercise structural violence to discriminate against the combated. A conqueror legitimates previous direct violence through ideological framing. In the same way, the burning of rainforest to gain access to farmland (direct violence), can lead to politicians lifting related environmental regulations (structural violence) to subsequently legitimize deregulation, broadcast through media and in political speeches (cultural violence). This has occurred in Brazil (see e.g. Lopes 2019). Direct violence is followed by structural violence when murders of environmental defenders are not investigated by a country's statutory judicial bodies (Navas *et al*. 2018).

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[6] In their criticism of the media, Nixon and Galtung are similar. According to Nixon, we live in "an age when the media venerates the spectacular" (Nixon 2011b: 259) and only violence that is "event focused, time bound, and body bound" (Nixon 2011a: 3) will make it in the media, not slow violence because it is, among others "spectacle deficient" (Nixon 2011a: 47). Also Galtung and Runge (1965: 66) posited that "the event that takes place over a longer time-span will go unrecorded unless it reaches some kind of dramatic climax" and then concluded that "[j]ournalists should be better trained to capture and report on long-term development, and concentrate less on 'events'" (Galtung and Runge 1965: 84).

Cultural violence may lead to direct violence and structural violence. For example, an ideology of white supremacy legitimized the apartheid regime in South Africa which marginalized people of color as second class citizens (structural violence), and eventually legitimized the state apparatus to conduct direct violence (Hansen 2018). The criminalization of environmental defenders has served as a means to legitimize direct violence in a variety of environmental conflicts in Latin America (Navas *et al*. 2018).

In summary, violence is present when needs for well-being, freedom or identity are negatively influenced to such an extent that their actual somatic and mental capacities are compromised. Violence is also present when the natural world is influenced to an extent that its capability to provide organization, vitality and resilience for all living entities is restrained. The effects of slow violence can extend over time, and at different scales. Violence against humans and nature comprises direct, structural and cultural violence, where each dimension can transform into, or bring about, another dimension in an indefinite cycle. The transformation is carried by hegemonic actors, most significantly, but may also be the result of counter-violence by non-hegemonic actors.

## 3. Negative, positive and Social-Ecological Peace

According to peace studies scholars, "peace" cannot be separated from "violence" (Fort 2009; Galtung 1990; Koerber 2009; North *et al*. 2009; Oetzel, *et al.* 2009). In its most basic conceptualization, peace exists once physical violence is absent (Basedau and Lay 2009; North *et al.* 2009). This definition is also referred to as "negative peace" (Galtung 1969; Gleditsch *et al.* 2014). However, when we define peace as the condition under which humans (Galtung 1990; Galtung and Fischer 2013) and nature can thrive, the absence of physical violence alone is not sufficient for an understanding of peace (Galtung 1969; Galtung 1990; Galtung and Fischer 2013). According to Galtung, peace that is based on "the negation of structural violence" is called "positive peace" (Galtung 1969: 183). According to some scholars (Gleditsch *et al.* 2014; Diehl 2016; Shields 2017), a current research focus is on the creation of negative peace, this article supports the appeals by these authors to broaden our understanding of peace further.

### Negative Peace

Negative peace is characterized by the absence of violence to basic human needs (Galtung and Fischer 2013), which we extend by the absence of violence towards ecosystems. Under negative peace, humans can fulfill their basic needs, and nature can maintain ecosystem health, because prior direct violence and related structural violence have ceased (for example by means of the instigation of Martial Law or military action). Furthermore, prior direct and structural violence is no longer culturally legitimated. For negative peace to endure, "conflict transformation" (Galtung 2010: 20) is necessary, which includes "anything that explicitly dealt with war and its consequences", e.g. "efforts at disarmament, negotiating agreements that ended or moderated war and rivalries, and the like are negative peace efforts" (Diehl 2016: 3). Negative peace "uses a short-term time horizon, which reinforces a tendency to see the job as complete once the fighting stops" (Shields, 2017: 6).

### Positive Peace

Positive peace has been defined in different ways (for a discussion, see Diehl 2016; Shields 2017). Galtung (2013: 23-24) himself has defined five "necessary conditions" for positive peace:

- "symbiosis – mutual benefit"
- "equity – equal benefit"
- "homology – same structure, 'opposite numbers' easily identified"
- "entropy – cooperation mass well distributed"
- "transcendence – something more than the sum of states or nations, in practice a multilateral organisation-secretariat."

Diehl (2016: 2) summarizes "four related core characteristics [that] define the extreme end of positive peace: (i) absence of major territorial claims, (ii) institutions for conflict management, (iii) high levels of functional

interdependence, and (iv) satisfaction with the status quo." These definitions remain broad, at the level of policy-making and conflict mediation. They do not apply to our search for a framework to understand persistent forms of violence in a societal process of transitioning from a situation of conflict towards peace.

On a societal level, Galtung distinguished negative peace and positive peace by defining the former as "processes of violence reduction" and the latter as "processes of life enhancement" (Galtung 1996: 30). This understanding sees positive peace as the integration of human society in the form of cooperation, dialogue and harmony (Galtung 2010; Galtung and Fischer 2013).[7] We understand these three elements as related to the concepts of direct, structural and cultural peace as follows:

- kind behavior and cooperation (Galtung 1996; Galtung 2010; Galtung and Fischer 2013) indicates direct positive peace among humans;
- structural changes towards equity, equality and justice (Galtung and Fischer 2013) indicates positive structural peace among humans;
- symbolic systems that "substitute legitimation of peace for the legitimation of violence" (Galtung 1996: 32) indicates cultural positive peace.

These three dimensions of peace form enabling environment that enhances the life of humans beyond the fulfillment of basic needs.

Direct positive peace towards nature is expressed in environmental friendly behavior, nature conservation practices, co-learning and partnerships to restore and protect nature. The institutionalization of a governance and economic system that reduces environmental impact is considered as leading to structural positive peace. Symbolic systems that support such behavior and structures (through science, technology, social theory or ethics) indicate cultural positive peace.

*Social-Ecological Peace*

Based on the above, "Social-Ecological Peace" is defined as the absence of violence against basic human needs and ecosystem health, and the presence of an enabling environment that enhances the life of humans beyond the fulfillment of their basic needs, actively supporting ecosystem recovery (positive Social-Ecological Peace). Social-Ecological Peace is present once positive peace and negative peace co-exist.

While according to Diehl (2016: 6), "most of those states that moved into positive peace relationships did so after being in negative peace relationships", we presume that reality is more complex. For example, during ceasefire conditions – a sign of the absence of direct violence –, dialogue and cooperation may begin to take place as a sign of the absence of cultural violence. But structural violence in the form of economic inequalities may still persist. Simultaneously, cultural violence towards nature may begin to emerge to harness it for economic development. Therefore, transitioning towards Social-Ecological Peace implies that peace does not exist in all dimensions. This in particular holds true when conflict has brought about slow violence, lingering into a newly declared era of negative peace.

Peace itself is dynamic. All too often, with "negative peace", focus shifts away "from the hard work of putting mechanisms in place that can repair fractured relationships as well as nurture resilient and just institutions" (Shields 2017: 6). Additionally, peace is also seen in different dimensions that are interrelated. Structural peace can lead to the emergence of direct and cultural peace. Similarly, structural peace is influenced by the quality of direct and cultural peace. These reciprocal relations also exist with direct and cultural peace.

## 4. Framework for the analysis of Social-Ecological Peace

Post-conflict areas, i.e. areas where conflict still looms in the background of a situation that can in general be defined by negative peace, are where our framework applies. From our definitions outlined above, a

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[7] Galtung's definition of peace has changed over time along with his own development. After his influential publications (1969; 1990) he appears to have moved to position himself as an action researcher and mediator in situations of conflict. See Galtung (1996), chapters 2 and 3; but also his position as "Chief Mediator", and not e.g. "Prof. Emeritus", on one of his latest publications (2015). As a discussion of the development of "peace" in Galtung's research goes beyond the scope of this article, we adopt his original notion to inform our framework.

set of consecutive questions was derived (see Figure 1). This framework is structured along Johan Galtung's dimensions of cultural, structural or direct peace, and positive or negative peace. Policies, regulations and institutions stand for "structures." Policies are understood as short-term, issue-specific structures, and regulations are longer-term ones that are based on a legal framework, if one exists. When Galtung's most influential articles on the subject were published (1969, 1990), "institutions" were not yet used as widely as they are today. They are important to include because in situations of conflict and post-conflict situations, often, not as many policies and regulations will take effect, but formal or informal institutions are important as the "rules of the game" − the written or unwritten rules that guide the behavior and interaction of actors (Li *et al*. 2014). Research has shown that they are resilient to change in post-conflict situations (Lee 2020).



*Assessment of a transition towards cultural peace*
**Cultural negative social peace**: In how far do narratives or framings still persist that violate the potential for members of society to update their mental or somatic potential and fulfil their basic needs?
**Cultural positive social peace**: Have narratives / frames been replaced by narratives / frames that support a harmonious coexistence?
**Cultural negative ecological peace**: Is the framing of nature still dominated by an anthropocentric premise?
**Cultural positive ecological peace**: Have these frames been replaced by frames that enable a harmonious coexistence?

*Assessment of a transition towards structural peace*
**Structural negative social peace**: After the ceasefire, were policies, regulations and institutions from the period of conflict abolished that violated the potential to update one's mental and somatic potential, and that impeded the fulfillment of basic needs?
**Structural positive social peace**: If at all, which policies or regulations were devised that bring about an enabling environment?
**Structural negative ecological peace**: Were policies abolished that impacted ecosystem health from the period of conflict after the ceasefire?
**Structural positive ecological peace**: If at all, which policies or regulations were devised that take regard of ecosystem health? Have institutions been established that support the monitoring of ecosystem health?

*Assessment of a transition towards direct peace*
**Direct negative social peace**: In how far have physical violence and segregation ended?
**Direct positive social peace**: In how far do former antagonists interact in a positive manner?
**Direct negative ecological peace**: In how far has natural resource exploitation beyond ecosystem health been halted?
**Direct positive ecological peace**: In how far do the practices of resource users take long-term ecosystem health into consideration, and in how far do resource users undertake measures to restore ecosystem health?

*Assessment of transformation across different dimensions of peace*
Has any of the three dimensions of violence been transformed into a different dimension of violence?
*Assessment of agency*
Is violence carried by hegemonic actors or a result of the interaction of hegemonic actors and counter-violence of non-hegemonic actors?

Figure 1: Analytical framework. Source: authors

Distinguishing between social, ecological, and social-ecological peace, the framework incorporates the notion of slow violence in two ways. On the one hand, under structural positive ecological peace, we question whether institutions have been set up that support the monitoring of ecosystem health. Under direct positive ecological peace, we look at how far practices take long-term ecosystem health into consideration, i.e. avoiding slow violence. We also examine how far resource users undertake measures to restore ecosystem health, i.e. bring direct peace to slow violence.

In Figure 1, the focus is on the transition from cultural violence to cultural peace; from structural violence to structural peace; and from direct violence to direct peace. While these are the most distinct transitions, for each of the dimensions of cultural, structural and direct violence, one will also have to assess how far they have been transformed to a different dimension. An analysis runs across all these dimensions, and the related question is positioned accordingly on the right-hand side (see Figure 1).

With its focus on a transition from a situation of conflict and violence to a situation of peace, the framework also has to include agency, i.e. it has to ask in how far violence is carried out by hegemonic actors or whether it is a result of the interaction of hegemonic actors and counter-violence of non-hegemonic actors. Accordingly, leverage points for a transition towards peace can be identified.

With its focus on a historical dimension, the framework is different from others that foremost collect indicators to describe the peacefulness of a society at a certain point of time (see e.g. the Positive Peace Index

or the Global Peace Index by the Institute for Economics and Peace), and that focus on peace without seeing it as originating from conflict (see e.g. the Positive Peace Index [Institute for Economics & Peace n.d]).

This framework understands peace as a peace building process. The dimensions of violence and peace (i.e. direct, structural and cultural) can be disentangled, and can be set into relation with human needs and ecosystem health. Analyzing a post-conflict situation in terms of the direct actions, policies, regulations, institutions or cultural interpretations that still bring about direct, structural or cultural violence, will help to understand what interventions can support a transformation towards Social-Ecological Peace. If, for example, cultural interpretations of previously antagonistic groups are a continuous source of tension (a case of cultural violence), an intervention will need to be different from a situation where policies entail or further amplify damage to certain groups (a case of structural violence). The framework also shows that in a post-conflict situation generally defined as peaceful, violence may still persist in certain dimensions, or may have even increased (see below).[8]

The dimensions of the framework are broad enough to be operationalized for a particular context, while their combination can further narrow them down to a particular meaning. As mentioned in the introduction, it responds to the criticism that structural violence is an ambiguous concept (see e.g. Miall 2011). Putting structural violence into context with other dimensions of violence narrows down its meaning. For example, if a major source of ongoing conflict are persisting stigmata against a group (cultural violence), in an analysis, one would search for policies that further substantiate and maintain such stigmata, and how they are expressed in behavior (direct violence). While the combination of dimensions of violence narrows down "structural violence", they are broad enough to be applied to different countries and cultures. This is important as the definition of positive peace and of how it can be brought about, can differ across cultures (Shields 2017).

## 5. Application of the framework to the post-conflict transition of Aceh Special Region, Indonesia

To demonstrate the value of the framework, we apply it to the case of Aceh, Indonesia. Aceh is one of the special autonomous regions in Indonesia, located at the tip of northern Sumatra. Aceh shows the complex interaction of persisting and new dimensions of violence within the overall context of a transition towards (social-ecological) peace. In our analysis, we focus on this transition, as the overall history of the conflict in Aceh has been presented extensively elsewhere (see e.g. Aspinall 2007b; Aspinall 2008, 2009; Lakhani 2016; Le Billon and Waizenegger 2007; Lee 2020; Lund 2018; McCarthy 2007; Miller 2006; Setyowati 2014; Setyowati 2020a, b; Waizenegger and Hyndman 2010). Furthermore, in our analysis, we focus on alterations over time to rural land use as indicators of ecosystem change.

Aceh is characterized by "a long history of strong resistance against European colonialists and their local allies" (Waizenegger and Hyndman 2010: 789). After the founding of the Indonesian state in 1945, violent conflicts in Aceh unfolded as a result of an imbalance in political and economic authority between Jakarta and Aceh, which triggered a revival of Acehnese identity discourses (McCarthy 2007; Aspinall 2007a). This period of conflict can be divided into three eras: the New Order era (i.e. the Soeharto presidency) from 1966 to 1998; the Reformation era (1998 to 2005) and the era of the Post Peace Agreement from 2005 until present. In the following, the two first eras will be briefly outlined, to then focus on the question in how far a transition towards social-ecological peace has taken place during the Post Peace Agreement era.

*Times of conflict*

During the New Order era, cultural violence in Aceh and across Indonesia towards humans and nature took the form of a 'developmentalism discourse' employing modernization theories. The discourse emphasized economic growth and political stability in the country by means of increasing capital investment and opening

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[8] While Galtung incidentally mentions that different dimensions of violence may exist at the same time (see e.g. Galtung 2010: 26), such observations did not lead to a further elaboration of the violence triangle. Galtung also conceptualized different ways of transforming from conflict to peace (see e.g. Galtung 1996; Galtung 2012), however, these conceptualizations focus to some extent on mediation.

up the economy to the inflow of foreign investment. It contributed to the dominance of elite domestic businessmen, including in the exploitation of natural resources and human labor, to supply raw material for global industry (Gellert 2019). In establishing political stability, the New Order government developed a centralized and militaristic political system. Centralized natural resource governance with unbalanced revenue sharing contributed to grievances in areas rich in natural resources, like Aceh (Aspinall 2007b) and Papua (McCarthy 2007). This triggered prolonged and violent conflict.

Exxon Mobil and Pertamina were licenced to extract natural gas from the newly discovered oil and liquid gas deposits in the Arun field in the North of Aceh. This was a prominent investment made during the New Order era (Kell 1995; Ross 2005). It provoked structural violence, because under a centralized government, the management of natural gas deposits and of revenues was distributed unequally between national and local parties. The Acehnese had to bear land expropriation and livelihood depletion as the consequence of mining operations, as well as significant environmental pollution (Aspinall 2007b; McCarthy 2007). At the same time, extractive industries could only absorb a small share of the local workforce (Aspinall 2007b). This impact on local citizens' well-being (needs) provoked local unrest. Local social entrepreneurs constructed and reinterpreted local grievances to establish the Free Aceh Movement/Gerakan Aceh Merdeka (GAM) in 1976. Initially, GAM was a minor secession movement, but it received wider support from Acehnese when the New Order Regime declared Aceh as a military operations area and used military force to cope with the movement. After Soeharto's regime stepped down in 1998, ethnonationalism further substantiated the fight for independence and further legitimized the free Aceh movement, which received broader support from Aceh society. Direct violence by GAM combatants took the form of assassinations of civil servants and of those who were seen as "collaborators" with the state (Lund 2018). From around 2000, during the rise of the GAM, its ethnonationalism discourse legitimized direct violence, such as intimidation and harassment against Javanese farmers (Lund 2018). "Javanese transmigrants were depicted by GAM as the categorical enemy of the nation of Aceh" (Lund 2018: 436).

While there were several initiatives to find peace, they were not successful and eventually, one attempt resulted in President Megawati declaring Martial Law in 2003. In 2002, IFES's survey found that most respondents saw dialogue to be the best approach to solving the conflict in Aceh (an indication of cultural positive social peace among the Indonesian population). However, after the declaration of Martial Law the population's view turned against dialogue, even though a majority thought that violent actions barely improved the situation in the country (IFES 2003). Martial law not only implied the threat and exercise of direct violence (Hillman 2011) but also of structural violence (Le Billon and Waizenegger 2007). Natural resources were increasingly exploited by individual members of the national army who logged forests to make room for plantations. Simultaneously, GAM took over partial responsibility for the registration of land sales. However, because export of timber became increasingly difficult (Lund 2018), deforestation was in general lower in the period from 2001 to 2005, in comparison to the post-conflict situation (Purnamasari 2018).

We see how structural social violence against Acehnese society (deprivation of land and revenues from oil and gas exploitation) resulted in the rise of cultural violence (an ethno-nationalism discourse) that legitimized direct violence. The response was the government's declaration of Martial Law, equating to direct and structural violence. While with the extraction of gas and oil, direct violence against local ecosystems unfolded, it slowed down during the escalation of conflict, as companies disinvested. Also deforestation was not as extensive as in post conflict times.

Three months before a major tsunami hit Aceh in December 2004, the first directly and democratically elected Indonesian president, Yudhoyono, indicated his commitment to end the conflict in Aceh through dialogue. The catastrophic impacts of the tsunami further enhanced this commitment. In the following, we use the framework as outlined in Figure 1 to analyze if and in how far violence in post-conflict Aceh has transformed into peace during the fifteen years after the peace agreement.

*From cultural violence to cultural peace?*

The tsunami changed the view on the Aceh conflict considerably. The public discourse on Aceh was transformed from "a space of threat and danger into one of 'national' commiseration and solidarity … a military

'solution' to the conflict became widely opposed by Indonesians and Acehnese" (Le Billon and Waizenegger 2007: 419). With the participation of multiple international organizations in peacebuilding, a liberal peace discourse (Richmond 2006) formed the basis of cultural positive social peace and legitimized new democratic governmental structures. In election campaigns, peace narratives dominated, and both local and national political parties campaigned for the importance of peace and the implementation of the Peace Agreement to gain support from voters. This has generally supported Aceh's integration into Indonesia and made Aceh more politically stable and safe for its citizens, which can be seen as a precondition for citizens to enhance their livelihoods (an instance of cultural positive social peace).

However, liberal peace discourses do not necessarily resolve threats to nature, as they prioritize capital inflow to invest in natural resource extraction to achieve economic growth. In Aceh, they were furthermore substantiated by discourses remaining from times of conflict. The ethnonationalism and autonomy discourse to some extent legitimized violence against nature in post-conflict Aceh, because it had been the very conflict around non-renewable resource extraction that had led to the rise of the autonomy movement (see also Aspinall 2007).

At the same time, the liberal peace discourse and autonomy discourse fostered cultural positive ecological peace. Aceh's first elected governor adopted REDD+, i.e. a global market mechanism that has been criticised as an expression of "the neoliberalization of environmental governance", through a peace agreement (Setyowati 2020a, 146). REDD+ enables countries and industries from the Global North to buy themselves out of reducing greenhouse gas emissions by investing in lower cost carbon sink projects in the Global South. REDD+ became part of the Aceh Green Vision, which aimed at improving Aceh's economic situation by combining conservation and revenue generation (Setyowati 2020a). However, the liberal peace discourse was influenced by Aceh's quest for autonomy, as we will now show.

*From structural violence to structural peace?*

A special autonomy law for Aceh was instituted in 2001. With the Memorandum of Understanding of August 2005, Aceh moved from a state of Martial Law to a new Law on the Governing of Aceh that foresaw the establishment of a democratic system of government. Former Free Aceh Movement activists established local parties which dominated parliament both in districts and at the regional level. Democratic elections have provided Aceh citizens an opportunity to evaluate the government's performance every five years. Democratic structures are a general move away from structural social violence to a situation of structural positive social peace. A further sign of structural positive social peace is that social segregation between Acehnese and Javanese has significantly diminished in post-conflict Aceh.

The autonomy discourse yielded structural changes that, to a significant extent reduced distributional injustice between Aceh and the nation-state. The Law on the Governing of Aceh grants the Aceh government a special authority to manage hydrocarbons and other natural resources. In May 2015, the central government formally transferred authority for managing oil and gas to the Aceh government through presidential regulation 23/2015, resulting in the establishment of the Aceh Oil and Gas Management Agency in April 2016. The Aceh Peace Agreement stipulates that revenues from oil and gas are shared between the Aceh government, which obtains up to 70 per cent of the revenues, and the central government, which is entitled to the remaining 30 per cent (see Aceh Peace Agreement 2005). This change in natural resource ownership is a sign of structural positive social peace, although from a political ecology perspective, fossil fuel exploitation continues until reserves are exhausted.

However, notwithstanding that Aceh has obtained a high share of natural resource revenues, this province remains one of the poorest in Indonesia (Miranti 2017). In many regards, the transition towards structural social peace is still ongoing. For one, the institutionalization of the liberal peace discourse has contributed to new forms of structural violence. In the context of Aceh's democratic system, local politicians require financial resources for political campaigning (Lund 2018: 439; Ruysschaert and Hufty 2020: 5). As a result, new patronage relations between local political and business actors has emerged. Other forms of structural violence dating back to wartime Aceh have been maintained, albeit under a different name. The "Armed Forces of the State of Aceh", TNA, became the KPA, i.e. "Aceh Transitional Committee" that "closely

replicated the structure and nomenclature of the old TNA" (Lee 2020: 124). For campaigning and resource mobilization, the "KPA's operational structure, which stretched down to the village level across the province, remains a powerful resource" (Lee 2020: 125). According to Lee (2020: 118), peace in Aceh presented elite ex-GAM members with the possibility to access an "alternate political order" with "renegotiated forms of rent creation and distribution", i.e. "new business opportunities" (Lee 2020: 128). In contrast, many lower ranking ex-combatants do not have regular livelihood sources, a situation that early on "contributed to increasing levels of crime, violence and social tensions" (Waizenegger and Hyndman 2010: 797).

Liberal peace and ethnonationalism discourses also led to a stratification of agricultural production. The liberal peace discourse supported economic growth based on increased investment inflows (Effendi 2013) which have been managed poorly. While in the aftermath of negative peace, smallholders and companies both reclaimed land that they had started to cultivate or had abandoned during wartime, companies and the new rulers eventually joined forces "to latch onto the global oil palm boom and develop large-scale production" (Lund 2018: 432). According to Lund (2018: 438) "the peace accord allowed for old patterns of land acquisition and conflict to reemerge, but now in a new political context." Structural social violence has resulted against a certain group of farmers, with the expansion of monoculture plantations and consequently deterioration of ecosystem health in Aceh.

At the same time, according to Aspinall (2008: 133), narratives of "Acehnese territory as the historic and exclusive property of the Acehnese" led to structural violence against some ethnic Acehnese smallholders, the original "constituency" of GAM. Many smallholders or farmers lost access to their land since the Aceh government administration issued a policy that "local people only have valid claims to the land as long as they farm it in a *traditional* manner" (Lund 2018: 441; highlight in the original). Otherwise, smallholders' land was absorbed into plantations (Lund 2018). This happened on the basis of the Plantation Law of 2004 which foresaw large-scale plantations as core plantations, with smallholders contributing by means of contract farming (see also Meilasari-Sugiana 2018).

As relations between the national and Aceh governments aligned, national policies were implemented to create structural, positive ecological peace. The Indonesian government published a moratorium to prevent the issuance of logging permits in primary forest areas. In response, the Aceh government issued three moratoriums on logging, oil palm plantations and mining licenses (Purnamasari 2018). As a result, according to GeRAK Aceh, "the issuance of mining permits (IUP) has declined from 138 IUPs covering 841,000 hectares in 2014 to 37 IUPs covering 156,000 hectares in 2017" (Purnamasari 2018). Furthermore, forest restoration from oil palm plantations has taken place on about 2,778 hectares (Hanafiah 2019a). These changes may partly also be explained by the liberal peace discourse that provides opportunity for civil society to more freely articulate human and environmental interests and organize with NGOs (Ruysschaert and Hufty 2020).

REDD+ is an example of both positive structural ecological peace with violence inherited from wartime. Linked into the Aceh Green program, REDD+ was legitimized by the liberal peace discourse, and at the same time used to further realize Aceh's autonomy. Responsibility for the management of forest resources has remained ambiguous, with the Law on the Governing of Aceh allowing "the provincial government to manage, plan, implement and supervise the exploration and exploitation of its resources" (Setyowati 2020a: 152), but not clearly determining the division of power between Aceh and national government (Setyowati 2020a: 153). At the same time, the national Forestry Law has retained the national government's control over forest management. In this context, REDD+ and the negotiation of the provincial land-use plan were used to argue for increased autonomy in governing forests.

These signs of cultural and structural positive ecological peace have to be set into perspective. Preserving forest cover through REDD+ has encountered several obstacles in practice, e.g. because some local actors conjectured REDD+ differently as an opportunity for logging, and forest rangers have struggles to monitor and halt deforestation (Setyowati 2020b). This is in line with the observation that while local politicians may have committed to a Green Aceh discourse, in practice, they issue licenses for plantations and mining in protected forest areas (Hanafiah 2014; Lund 2018: 444; Ruysschaert and Hufty 2020). Poor supervision remains a bottleneck (Antara 2019) and illegal mining is still ubiquitous because of missing control by the state apparatus

(Zulkarnaini 2019). Poor governance of the mining sector both on the local and national level runs counter to other pacifying actions.

*From direct violence to direct peace?*

The Memorandum of Understanding for the cessation of hostilities in 2005 decreased direct "everyday violence" drastically (Waizenegger and Hyndman 2010: 797). The disarmament of combatants (Aspinall 2009) along with programs of combatant reintegration (Aspinall 2009) have in general provided a foundation for a transformation towards direct positive social peace, i.e. increasing the quality of life across Aceh society. However, as mentioned above, research points at instances of direct violence by ex-combatants who have not been beneficiaries of such programs and resort "to raising funds illegally, a skill they acquired during the conflict", which led to a situation in which "incidents of petty crime, robberies, kidnappings and extortion have steadily increased" (Waizenegger and Hyndman 2010: 799). Additionally, intimidation or threats of violence are still reported as a practice by those GAM leaders who maintained the war-time taxation system (Lee 2020).

According to data from the World Resources Institute Indonesia (Purnamasari 2018), direct violence against nature has increased in the form of forest cover change and environmental pollution from the development of oil palm plantations, as well as open mining of coal and gold, both legally and illegally, within protected forest areas (Faruq 2018; Hanafiah 2019b; Setyowati 2014), leading to a fragmentation of habitat. Also in contexts of overall structural positive ecological peace, instances exist where war-time practices of timber collection are maintained, despite REDD+ projects for forest conservation (Setyowati 2020b).

*In how far did a transition towards social-ecological peace take place?*

From above analysis, post-conflict Aceh reveals a fragmented picture. In a context of overall peace, different dimensions of violence still continue to intersect with dimensions of peace. While Galtung first differentiated direct peace, structural peace and cultural peace, a distinction that would correspond to the differentiation of different dimensions of violence, he later declared such a conceptualization "too static" (Galtung 1996: 265). In this article, we show that a dynamic understanding of the transition of these dimensions of violence and peace does help to obtain a nuanced understanding of a process of peace building. Applying the social-ecological peace framework to Aceh allows us to systematically disentangle the extent to which prior violence has transformed into peace, or alternatively, a certain dimension of violence has continued, either in its wartime state or under a different label, or by manifesting itself in a different dimension of violence.

In his analysis of Aceh's transition from a "wartime political order" to a "peacetime political order", Lee (2020: 118) finds that the peacetime order "centres on the re-creation and re-structuring of rent-seeking" because "neo-patrimonial relationships and the resultant wartime political order that emerges is resilient" (Lee 2020: 130). An analysis with a focus on structures inherited from wartime risks losing sight of developments that contribute to the transition towards peace. Revealing those leverage points where positive social ecological peace is attainable, while at the same time analytically disclosing the resilience of structures that endured into times of negative peace, will allow to critically assess how to support a transition.

In post-conflict times, cultural peace plays a crucial role as it allows individuals to narrate and act out a new identity, for example ex-combatants retraining as forest community rangers, or as citizens with rights over their forests (Setyowati 2020b). They can thereby contribute in a small way to a new era of positive social-ecological peace. At the same time, discourses that are inherited from wartime and transform into peacetime structures risk to carry violence with them. As the liberal peace discourse was joined with Aceh's struggle for autonomy, and with new structures of access to revenues from extractive industries, increased resource exploitation was the result, both in the mining sector as well as in commercial agriculture. Paired with the wartime ethnonationalism discourse that built on the Acehnese need for identity, liberal peace actually legitimized a structural transformation to plantation-based oil palm production, with smallholders becoming contract farmers, or being asked to revert to "traditional farming." Laying open how structural violence is legitimized by peace discourses is crucial, in particular in instances where these were the foundation of wartime struggles.

Transitions are long-term, societal "projects" that can take generations. In the first years of negative peace, wartime organizations are unlikely to be completely dissolved, which has been exemplified by the relabeling of an organization like the "Armed Forces of the State of Aceh" into the "Aceh Transitional Committee." The institutions that such organizations created during wartime, are likely to last in one way or another as long as ex-combatants maintain them. It is the strengthening of democratic structures and the experience officials need to obtain in order to act in an accountable and transparent manner, that will reduce the scope and effectiveness of wartime structures (see Miller 2006). Currently, weaknesses in democratic structures still exist, such as election campaigning processes that have led to the emergence of informal patronage networks, which, together with a rent-seeking culture among certain officials, impact on the execution of public tasks. Therefore, again, cultural peace becomes important as it sanctions such behavior by changing the "moral color of an act" (Galtung 1990: 292) from right to wrong in contexts where societal structures are still developing and in need of adjustment.

## 6. Conclusion

In post-conflict situations, struggles endure in a transition towards positive peace. Using concepts from conflict studies and political ecology will improve our understanding of such transitions (Le Billon and Duffy 2018). In this article, the engagement between the two fields has returned a framework that allows a critical analysis of resilient structures and discourses from times of conflict, as well as of possible leverage points that could support a transition towards social-ecological peace. The framework helps to understand how far dimensions of prior violence have transformed into peace, and if certain dimensions of violence have continued, even though they manifest themselves in different ways.

The application of the framework to post-conflict Aceh, Indonesia, illustrates how cultural violence plays a crucial role in the transitioning towards social-ecological peace. In post-conflict contexts, where societal structures are still establishing, cultural peace changes the "moral color of an act" (Galtung 1990: 292) from right to wrong. Cultural peace hence serves as an important sanction in contexts where poor governance still persists.

The main discourses of cultural peace that have been identified in this article play out in different ways depending on how they are combined with other peace discourses or structures. It becomes important to lay open the structural effects of the very discourses that have supported Aceh's autonomy, so that they may not further continued structural violence into peacetime. This is likely to remain a challenge in a context where struggles over autonomy are still being negotiated (Setyowati 2020a).

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