

A systemic analysis of the role that climate, natural resource and food systems play in conflict and peace is key to design and implement interventions addressing and preventing conflict. This document is one part of the 2-policy note outputs from the "Charting the path to peace" side events of the CGIAR Climate Security Webinar Series. These notes summarize the key messages made during the webinar panel discussion. Recordings of the webinar sessions are available [here](#). The webinar is also available in podcast format from the [UN Global Dispatches Podcast Website](#).

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Panelists and short summary

The session was comprised of a multidisciplinary panel, consisting of representatives of the government, experts from the fields of climate science, policy, humanitarian assistance and international development.

- **Athia Yumna**, Deputy Director of Research and Outreach, The SMERU Research Institute
- **Henriette Faergemann**, First Counsellor, Environment, Climate Action and ICT, Delegation of the European Union to Indonesia (EU)
- **Maliki**, Director for Poverty Alleviation and Community Empowerment, Indonesia Ministry of National Development Planning (BAPPENAS)
- **Mubariq Ahmad**, Country Director, Conservation Strategy Fund (CSF) Indonesia

Climate change and variability impacts in Indonesia been considerably strengthening in the past 20 years and will continue this trend in the future. Most of the climate induced losses are likely to be concentrated in certain sectors, such as agriculture, and on certain population groups, the poorest, vulnerable, and most marginalised who are less able to cope with the climate crisis.

Indonesia is among the fastest-growing lower middle-income countries in Southeast Asia (SEA). Its effort in reducing poverty rates has been outstanding in the past decade and as of now about 10% of the population lives under the poverty line in Indonesia. Despite these remarkable results, inequality has been steadily increasing, and the divide between richest and poorest has widened even more in both rural and urban areas, and in areas mostly exposed to climate hazards, such as coastal areas. Studies have shown that structural inequalities, defined by religion, ethnicity, or other identities, are linked to a much higher risk of tensions and conflicts. Guaranteeing equal access to resources, voice, and participation of the most vulnerable groups, will be fundamental in keeping security in the country.

During this event, the panellists discussed policy options to mitigate the impact of climate variability on inequality of opportunities for the poorest and most marginalised people, ultimately contributing to peace and security in Indonesia.

How concerning are the climate and inequality challenges in Indonesia?

About 40% of the population in Indonesia faces high mortality risks due to multiple climate hazards, such as tsunamis, floods, landslides and drought. Climate change has increased the occurrence of many of these hazards, such as droughts in southern islands; it has increased the severity of floods and cyclones across the country and fasten sea level rise in coastal areas. Average temperatures have increased steadily in the past 40 years and by 2060 it is expected to increase between 0.9°C and 2.2°C. Annual rainfalls have also increased by 12% in the past 30 years. With an estimated further increase of 15% in the next 3 to 4 decades, wetter and drier seasons are expected especially for the regions south of the equator (including Java and Bali) which will increase even further the occurrence of climate hazards in the country (Ministry of Foreign Affairs of Indonesia, 2018). A recent study estimated that by 2050 the total costs imposed by climate change in agriculture, health, and gradual sea level rise in Indonesia will equate to about 1 % of today's Indonesia GDP, roughly 9 billion dollars (Hecht, 2016).

This is only a partial figure, as agriculture is not the only sector that is and will be impacted by climate variability. The rapid development of the past decade in Indonesia has moved a lot of people out of farm activities to wage and non-farm employment in urban areas (Firman, 2004). Some of these people are most marginalised and disadvantaged, such as migrants, women and low skilled and educated young men and women (Tacoli, 2012). Due to lack of resources and opportunities, these groups are bound to be the most exposed and vulnerable to climate impacts (Silva Julie A., 2016).

Despite its rapid and sustained economic development, Indonesia has become the sixth country with the greatest wealth inequality in the world, with the four richest people having more wealth than 100 million poor people in the country, all together. Economic inequality is reinforced by inequality of voice and opportunity, with the poorest excluded in favour of the rich (OXFAM, 2017). Athia Yumna highlighted that the divide between the richest and poorest has widened since the economic reform following the financial crisis of 1997. Thus, up until the past four years, inequality has increased exponentially in both rural and urban areas, with rural areas always performing worse than urban areas. Athia also claims that coastal areas have experienced a significant increase in inequality and climate impacts have certainly played a role in this.



“ Since the financial crisis, inequality has increased in both rural, urban and those areas most affected by climate hazards, such as coastal areas. ”

Athia Yumna, The SMERU Research Institute

Does climate variability have a bigger impact on the most vulnerable?

One argument could be as follows: People living in areas with high risk of climate hazards usually correspond to the most disadvantaged populations. Due to existing structural inequalities, they have limited opportunities to cope with climate hazards and often fall into a spiral of further poverty and social exclusion. In the context of an increasingly varying climate, these populations are expected to experience increased exposure, vulnerability and inability to cope and recover to climate hazards, further increasing existing inequalities of income and opportunities (Burke et al., 2015; Etzold et al., 2014; Singer, 2018; United Nations Department of Economic and Social Affairs, 2018).

The relationship between climate change/variability and inequalities is **complex** because these two forces contribute and reinforce each other in a vicious cycle of increasing exposure, vulnerability and reducing coping capacities, especially among the most disadvantaged and marginalised groups (Silva Julie A., 2016). It is also **multi-dimensional** and **highly context specific** (Oxfam, 2018; United Nations, 2016). Structural inequalities and climate impacts are the product of the interactions of discriminations based on gender, age, ethnicity, race, religion, culture, unequal access to basic services and unequal opportunity for participation and choice. These interactions create structural barriers that limit disadvantaged and marginalised groups' ability to cope with and adapt to climate hazards (Silva Julie A., 2016).



“**Poor and agricultural households living in rural, urban and coastal areas have much lower capacities to cope with climate impacts.**”

Athia Yumna, The SMERU Research Institute

Athia Yumna stated this could be the case of Indonesia, as the poorest and most marginalized households, such as women and low educated people, in both rural and urban, have been suffering the most from climate impacts, due to their lower resilience capacities. In addition, Maliki highlighted that we still know extraordinarily little about who bears the burden of climate impacts and inequality. Elderly and disabled people are often left behind by the social protections systems and therefore suffer the most when socio-economic and environmental crisis occur. This is especially true for coastal areas.

In line with these thoughts, in the recent study “**Who bears the burden of climate variability? A comparative analysis of the impact of weather conditions on inequality in Vietnam and Indonesia**”, Pacillo et al. (2020) also find that the effect of climate variability in Indonesia is *regressive* as the impact of changing climatic conditions is not equally distributed across the Indonesian population, bringing disproportionately higher impacts upon farming households and on the poorest and most vulnerable people, who are less capable of coping with climate hazards. The analysis finds lower climate coping ability to be linked to **multiple dimensions** such as age, gender, and education, with rural women, elderly and less educated suffering the most the consequences of climate variability. Climate impacts on inequality in Indonesia are also very *context specific*, and the most affected areas are those that have historically been more affected by the El Nino related events, such as Sumatra, Kalimantan and Sulawesi.

Maliki (BAPPENAS) shared his concerns about the impacts of climate induced inequality on the sustainable growth of the country. The Government of Indonesia’s (GoI) ambition to become a middle-income country by 2024 and to become a developed country by 2045, could be severely undermined if inequality is not reduced. He argued that high inequality will inevitably reduce growth, will profile negatively especially with foreign investors, reducing future investments, and creating the basis for tensions and conflicts.



“ A large gap in education attainment, wealth ownership and social inclusion, will reduce economic development in Indonesia and inevitably create tensions and insecurities in the country. ”

Maliki, Indonesia Ministry of National Development Planning (BAPPENAS)

He continued highlighting that, cognizant of the role that inequality plays on economic development, the GoI's Inclusive Economic Growth model clearly prioritizes the reduction of inequality as a national priority both at regional and national level. The GoI also recognizes the role of climate in this, keeping environment, natural development and stronger climate resilience at the heart of the Indonesian Medium Term Development Plan which embraces the “intergenerational responsibility” of an optimal, smart and considerate use of natural resources. All these together could contribute to a more sustainable, climate resilient economic growth, based on single digit poverty and low inequality.

Henriette Faergemann (EU) emphasized that European Union will increasingly support the GoI on this strategy, tackling the climate challenge and mitigating climate impacts on the most vulnerable. It will be critical for the country and the Southeast Asia region overall to align investments to climate objectives and the establishment of EU-Indonesia common strategy for a green trade agreement will certainly contribute to this.



“ Climate security is the on-going and future crisis for all. We are sitting on a ticking climate bond that poses unprecedented threats. We need climate sensitive investments to reduce the impact of climate on the most vulnerable. ”

Henriette Faergemann, First Counsellor, Environment, Climate Action and ICT, EU

Mubariq, from CSF, also recognized the importance of tackling the climate impacts at national level but he also highlighted that more recent political events are not necessarily going in this

direction. For example, the new Labour Law, despite adopting some innovative schemes to support small and medium enterprises, introduces controversial measures that could have serious, negative, implications for the environment, facilitating deforestation and moving land negotiation in favor of the rich and big enterprises, and, thus, reducing even further climate resilience of the landless, most vulnerable and those who mostly rely on forest products.



“ **The new Labour law threatens environmental security, as it turns environmental crimes into mere administrative mistakes. Deforestation and land grabbing will be easier under this law, further impacting on the poorest and most marginalised groups.** ”

**Mubariq Ahmad, Country Director,
Conservation Strategy Fund (CSF) Indonesia**

What can we do to ensure an equal, sustainable economic development for all in Indonesia?

Understanding the direct relationship between structural inequality and climate variability is of paramount importance for the policy development in Indonesia. Despite the existence of many policies designed to target and support low-income groups in coping with emergencies. These policies often have little relevance to the needs, rights, and priorities of the most marginalised people. The lack of participation and voice in the places of power has in the recent years worked in favour of the better-off and widened the gap between these and the most vulnerable (Oxfam, 2018).

In this discussion it became clear that climate threats are exacerbating inequality in Indonesia and that increasing inequality can have tremendous destabilizing effect across the country. Therefore, tackling the climate-inequality nexus will be a clear future challenge. In addressing this challenge, three main priority actions were identified by the participants:

(1) Strengthening evidence on who bears the biggest burden of climate impacts

Despite some improvement in the past few years, disparities between urban and rural, in-land and coastal areas have been increasing and climate hazards are significantly contributing to widen these divides. Climate induced inequalities, however, cover a multitude of dimensions and complexities, linking to different geographies and demographics in the country, not only related to the rural and urban divide. The multi-dimensionality and complexity of the impacts of climate on inequality should be carefully considered when trying to address the needs of the most vulnerable. One of the main challenges in this regard is data. The quality of the data collected from the poorest, most vulnerable, and most marginalized, such as elderly and disabled, is often exceptionally low and more high-quality information must be collected. Maliki emphasized that increasing the quality of the evidence on how these groups cope and react with socio-economic and environmental challenges will be critical for their integration in the GoI's social protection programs and for a timely response when climate hazards happen.



“Improving the quality of data collected from vulnerable groups, such as elderly and disabled, will be critical to integrate them in our social protection programmes, and to respond fast in the context of climate hazards.”

Maliki, Indonesia Ministry of National Development Planning (BAPPENAS)

(2) Mainstream climate impacts into social protection programs, investments and policies to protect the most vulnerable in a context of climate crisis

Policies, investments and, specifically, social protection schemes must keep the pace of the climate challenge. Athia noted that increasing climate sensitiveness of decision-making processes will mean ensuring that the needs, livelihood conditions and vulnerabilities of the poorest and most marginalized will be heard and taken into account in the places of power.



“ **Indonesia needs a social protection that is sensitive to the needs, livelihood conditions and vulnerabilities of the poor and vulnerable.** ”

Athia Yumna, The SMERU Research Institute

Maliki highlighted that this is an ambition that BAPPENAS is taking very seriously. A roadmap on the implementation of an integrated social policy, to be launched in 2021, will foster the implementation of an “Adaptive Social Protection” program with the main objective of protecting the most vulnerable during emergency situations, via combining social protection with disaster risk management and climate adaptation, strengthening social protection institutional schemes to be more responsive to socio-economic risks and by developing a sustainable social protection financing schemes to overcome these risks. The latter will also benefit from innovative sharia finance options (zakat and waqf), which will help not only in providing in-kind timely support but also contribute to the redistribution of wealth in times of need.



“ **A roadmap for the reform of the national social protection policies will be launched in 2021. This roadmap will strengthen the integration of social protection programmes and render them more responsive to the challenges posed by the climate crisis.** ”

Maliki, Indonesia Ministry of National Development Planning (BAPPENAS)

(3) Enforcing the recognition of people’s right over natural capital, improving land governance and invest more in renewable energy.

Since the adoption in 1870 of the law “*domein verklaring*”, land ownership has been a major driver of inequality in Indonesia and triggered many tensions and conflicts across the country. After 150 years of disputes demanding a thorough land reform, many poor and more

marginalized people still lack the right to own land. Mubariq emphasized that social protection schemes will not alleviate the burden that climate change poses on the poorest and most vulnerable if the recognition of their right to capital is not enforced throughout.



“ **Social protection should start with the recognition of people’s right over natural capital. The government should stop all the displacement as a way to increase investment.** ”

Mubariq Ahmad,
Conservation Strategy Fund (CSF) Indonesia

Land use changes in Indonesia, with tropical forest and traditional agricultural crops such as rubber, shrinking in favor of big oil palm plantations, have caused severed deforestation concerns over the past decades (Bou Dib et al., 2018) and recent regulations, including the new Labour Law, seem to contribute to this trend, reducing even further the capacity of the most vulnerable, especially those who rely on forest products and land, to cope with socio-economic and environmental impacts. Henriette and Mubariq both highlighted the need to invest more on non-oil palm based renewable energy sources to reduce the environmental footprint and protecting the most vulnerable.



“ **A holistic, green strategy over investments is needed. One that, through greater coordination between European Union institutions and the Government of Indonesia, will facilitate the transition towards renewable energy and sustainable solutions for the landless and most vulnerable.** ”

Henriette Faergemann
Environment, Climate Action and ICT, EU

CGIAR's role in climate security in Indonesia

The uncertainties of the current climate crisis and its impacts are increasingly concerning policy makers and practitioners in Indonesia. Addressing climate impacts is not only a matter of socio-economic development. It has repercussions on the stability and security of the country and the region. Indonesia, for instance, has experienced more than 150 years of conflicts around issues of land ownership and land governance, which has contributed to the increase of inequality of income and opportunities across groups (Bou Dib et al., 2018; Lucas & Warren, 2013). A recent analysis by Tadjoeeddin et al. (2020) demonstrates that there exists a clear relationship between inequality and conflicts in Indonesia. Therefore, the impact of climate on inequality can really become a national security threat for Indonesian people if not timely addressed.

It was clear from the discussion that there exists a need, at national and regional level, for a platform where reflections around climate impacts, existing risks and threats, and socio-political security can be discussed and this is what this webinar aimed to do. Another important take away from our discussion was the need for more evidence, science, and technologies to increase climate resilience of the most vulnerable and marginalized in Indonesia, who are currently bearing the biggest burden of climate impacts.

CGIAR scientists are actively involved in supporting the GoI in dealing with climate impacts on agriculture and food systems. Since 2013, the CGIAR Research Program on [Climate Change Agriculture and Food Security in Southeast Asia \(CCAFS SEA\)](#) aimed to help Indonesia, particularly the government and smallholder farmers, cope with the impacts of climate change in agriculture. CCAFS SEA brings together the world's best agricultural scientists and climate experts to study and address the interactions, synergies, and trade-offs among climate change, agriculture, and food security. In Indonesia, CCAFS research has helped identifying opportunities and barriers to producer participation in the Roundtable on Sustainable Palm Oil (RSPO) Certification; designed innovative approaches to agriculture and forest management and supported the implementation of REDD+ initiatives highlighting the importance of strategies that prioritize the livelihoods of local communities as well as emissions reduction.

CGIAR is also working in bridging climate science with other disciplines to evaluate the impact that the evolving climate challenge brings to the food system. The study by Pacillo et al. (2020), presented in this webinar, is an example of this commitment aiming to generate missing

evidence on the impact of climate on inequality. Analyses on the direct impact of climate change and variability on structural inequalities are limited, as the literature mostly focuses on the direct effects on poverty and treats inequality as a secondary and consequential issue. Poverty and inequality are, however, very distinct phenomena and often follow different patterns, as demonstrated in Indonesia. Furthermore, a large majority of the previous studies analyse the relationship of climate and inequality across countries, with less attention to how different groups within each country are impacted by climate hazards. Pacillo et al. (2020) contribute to fill this gap by using a within country approach to dig deeper in the relationship of climate and inequality and try to understand whether climate variability has a bigger impact on the most vulnerable groups in Indonesia and whether this, contributes to increase inequality and instability in the country.

Finally, CGIAR, thanks to its global knowledge of excellence on science and technologies for transformative food systems, plays a critical role of catalyst, conveyer and knowledge accelerator, from the academic discovery all the way to the modulation into tangible policies and practices. This is important in the context of our current climate crisis as the rate of changes triggered by climate variability require the highest degree of celerity and this is specifically important for those countries most affected by climate hazards, such as Indonesia.

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