

Education, Collaboration, and Innovation: How Increasing Awareness of Climate Change Can Support the Expansion of Community-Led DRR Projects

Story | Created at 25 January 2023 | 🚨 Taylor Lemmon; Lorenzo Fellycyano (ed.)



Indonesia is ranked in the top third of countries in terms of climate risk¹, with high vulnerability to extreme weather events such as floods and droughts, and long-term changes from sea level rise, shifts in rainfall patterns, and increasing temperature. The Special Region of Yogyakarta is no exception to this risk. According to the National Disaster Management Authority, Badan Nasional Penanggulangan Bencana (BNPB), Central Java and the Special Region of Yogyakarta experience the highest frequency of disasters nationally².

Taking urgent action to combat the risk of climate change and its devastating impacts must then be considered a crucial aspect of disaster risk reduction (DRR). Although, on a community level challenges to climate change adaptation often occur. Families, most vulnerable to the impact of disasters, have competing priorities such as earning a living, putting food on the table and their children's education. It seems these communities live between two conflicting paradigms. One of everyday survival and fulfilling their short-term needs and the second a necessary transition to long-term sustainable practices, which mitigate the threat of climate change and safeguard their long-term needs.

PB Palma GKJ Ambarrukma (Ambarrukma Javanese Christian Church Disaster Management and Community Service) is a faith-based disaster response organisation situated in close proximity with the Gadjah Wong River in Caturtunggal Village, Yogyakarta. It partners with the Gadjah Wong River Care Group (KPGW—Komunitas Peduli Gajah Wong), a community organisation residing on the

banks of the Gajah Wong River. With support from YAKKUM Emergency Unit's (YEU) IDEAKSI project*, PB Palma has developed an innovative DRR system, aimed to support KPGW's emergency response in the event of a flood. The system includes an early warning system, lighting, increased reserves of emergency response equipment and the strengthening of flood and emergency response plans to be more effective and inclusive. So far the EWS has been expanded from two main flood points to five. This expansion allows for greater collaboration between communities whilst simultaneously mitigating the impact of disasters.



Gajah Wong River as seen from where one of the EWS is installed

Surprisingly though, not all neighbouring communities are open to having these EWS installed and consequently, increasing their community's capacity in the face of disaster. This may be attributed to a variety of factors. The main concerns for the new systems include running and repair costs once initial funding has ended, time to maintain the system, wanting autonomy over the projects and political, and governance indifference. These factors relate to the first paradigm, living day to day, with basic survival as the priority. How can we then work towards increasing awareness of and interest in the second paradigm, establishing a safer, more sustainable future for the affected communities? In other words, long-term sustainable development.

Most people living along Gajah Wong River, live in overcrowded houses, in densely populated, informal settlements. The structures are often poorly built making them less likely to withstand flood events. There is also a high population of vulnerable groups, especially the elderly, and persons living with disabilities, who require extra support in times of disaster. All of these compounding factors should encourage the adoption of these new DRR systems, yet everyday survival and limited community capacity often prevail over long-term development projects.

Increasing awareness of climate change and the direct impact it has on the livelihoods of Gajah Wong River communities is pivotal for sustainable development in the region. The United Nations Development Goal 13: Climate Action, highlights the need to "Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters" and "Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning", (2022). Education, collaboration, and innovation allow communities to mitigate disaster risks, according to their needs, so they may thrive not only in the short term but importantly the long term. Increasing education programs on climate change may support the adoption of PB Palma's DRR systems and increase capacity over the Gajah Wong River as an undivided community.

*The IDEAKSI (short for Idea, Innovation, Action, and Inclusion) program is a part of the Community-Led Innovation Partnership (CLIP) run by the YAKKUM Emergency Unit (YEU). The partnership supports the emergence and development of locally-driven solutions to humanitarian problems in the Democratic Republic of Congo (deferred), Guatemala, Indonesia, and the Philippines. As part of the partnership, IDEAKSI seeks to find innovative and inclusive solutions to disaster management for most-at-risk groups, including persons with disabilities and the elderly.

Through the support provided by Elrha, Start Network, the Asia Disaster Reduction and Response Network (ADRRN) Tokyo Innovation Hub, and funding by the UK Foreign, Commonwealth, and Development Office (FCDO), YEU is able to organize IDEAKSI as its CLIP project in Indonesia.

- 1. University of Notre Dame 2022, ND-GAIN country index, ND-GAIN Notre Dame Global Adaption Initiative, .
- 2. Pratidina, G. Suroso & Santoso, P 2019, Detection of satellite data-based flood-prone areas using logistic regression in the central part of Java Island", Journal of Physics: Conference Series, vol. 1367, no. 1.



























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Sir Francis Bacon dikenal dengan pernyataannya bahwa "Pengetahuan adalah Kekuasaan." Pembuat kebijakan yang dilengkapi informasi memadai akan mampu menawarkan solusi-solusi yang efektif mengatasi permasalahan sosial. Masyarakat dapat pula menjawab tantangan

di lingkungan mereka dengan adanya akses

Tweets from @YEUJogja

YAKKUM Emergen... @YEUJogja · Jan 28



The CLIP Annual Workshop 2023 concludes on a high note on Fri (27/1) with project planning for the next 2 yrs. We thank you for making this happen, and are looking forward to future meetings and more innovative solutions to humanitarian problems. Safe travels, everyone!

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