

Bulkanomiya Design Challenge Brief



View of the Mayon Volcano from Cagsawa Ruins. Image Credit: Pamela Luber

Background

Where:

The Mayon Volcano is the highest peak in the Bicol Region at the eastern side of the Philippines. It rises at a height of 8,077 ft and is easily the symbol most associated with the province because of its perfectly symmetrical shape, which earns itself the title of the Most Perfectly Cone-Shaped Volcano in the world. It is shared geographically by eight cities and municipalities in the Province of Albay, namely, Legazpi City, Daraga, Camalig, Guinobatan, Ligao City, Tabaco City, Malilipot, and Santo Domingo. The Mayon Volcano is central to the province's declaration as a UNESCO Biosphere Reserve in 2016.

As of the 2015 census, a population of 930,000 share in the benefits of the most active volcano in the Philippines. Owing to the highly fertile landscape surrounding Mayon, agriculture has become the main industry and source of local livelihood in Albay. Crops such as coconut, rice, sugar, pili, banana, and abaca are among the main products, some of which are emerging products in the international market. Moreover, locals seize the growing tourism for business opportunities, from anything between serving as eco-tour guides to venturing into the hotel and restaurant industry.

What:

The destructive activities of Mayon Volcano continue to threaten livelihood, health, food security, tourism, and economic progress in the surrounding towns of the Albay Province in an almost vicious cycle. Hence, governments and institutions that are working to address this are in need of teams and initiatives dedicated to developing new and innovative approaches to address these problems. Innovation teams or Innovation Labs (iLabs) use a range of techniques and resources to try to tackle social and public issues and challenges by adopting experimental methods (Nesta, 2014).

How can Albay turn Mayon Volcano's eruption from a livelihood threat to a valuable asset?

We are creating a student design challenge to unlock student creativity and envision a more resilient agriculture/fisheries, tourism, livelihood, and quality of life and environment in Albay in the light of Mayon Volcano's threats through an inspiring systems thinking approach.

Why:

Mayon Volcano has erupted more than 47 times in the last 500 years and around 10 times in the last 25. The latest eruption happened in January of this year, and a total of 80,000 people were evacuated from the six and eight-kilometer danger zones. More than 10,000 farmers have lost their livelihood and returned to ash-covered crops after the Alert Level was lowered from Level 4 to Level 2. By February, the damage to agriculture was estimated at Php 185 million (USD 3.5 million). The days-long ashfall caused crop prices to increase in the local markets despite the price freeze.

For a province heavily dependent on agriculture and ecotourism, calamities such as the recurring eruptions of Mt. Mayon continue to rob Albay of its opportunity to grow economically. Hence, we are reaching out to you for your best ideas in improving the resilience and abundance of Albay through innovative and creative systems that reframe Mayon Volcano's eruptions as an asset rather than a threat.

Calendar

June 26, 2018 - The Bulkanomiya Concept: an Intro into Systems Thinking and Environmental Resilience/Soft Launch of the Bulkanomiya Design Challenge

July 31, 2018 - Official Launch of Bulkanomiya Design Challenge at Bicol University College of Engineering. Start of receiving entries.

September 3, 2018 - Last day of submitting entries

September 4-7, 2018 - Screening of entries by select panel and selection of top 5 finalists

September 10, 2018 - Live pitching of top 5 finalists and selection of winning proposal

September 14, 2018 - Awarding of Winning Proposal

September 29-30, 2018 - Workshop for winning proposal's team to help team develop, market, and pitch their ideas which will be helpful skills in their current and future research projects.

(Please note that dates are still subject to change. Participants and relevant parties shall be notified of changes beforehand.)

Awards

The team with the winning proposal will be mentored by Mr. Chris Newhall and other YSEALI Alumni to further develop their ideas, equip them on resilience, design thinking, and project management, among others in a two-day workshop within the campus. Moreover, members of the winning team will also win an overnight package for two to Mirisbiris Garden and Nature Center.

The winning proposal will be announced in a short program on September 14, 2018. After consultation with the winner and the rest of the top five, their entries will be posted on the BDC, EWC, and YSEALI websites among other media platforms. Judges have discretion to award honorary (non-monetary) prizes.

**This schedule is subject to change but relevant parties shall be notified beforehand. Students will be given one month from the formal launch to complete their entries.*

The Challenge

We are creating a student design challenge to unlock student creativity and envision a more resilient agriculture/fisheries, tourism, livelihood, and quality of life and environment in Albay in the light of Mayon Volcano's threats through an inspiring systems thinking approach.

Participants are challenged to empower Albayanos to harness the volcano's eruption as a means to improve and add on to existing systems, which will help offset the negative impacts that Mayon's every eruption brings to the province's various industries, particularly in agriculture/fisheries, tourism, livelihood, and quality of life and environment in Albay.

Eligibility

Team members must be:

1. Enrolled in a degree program (undergraduate or graduate) at Bicol University to participate in the Bulkanomiya Challenge as of January 1, 2018.
2. Has received a degree (undergraduate or graduate) from Bicol University within 12 months prior to January 1, 2018.

Proposals may be submitted by teams comprised of minimum of three (3) and maximum of four (4) members, as long as members of each team meet one or more of the criteria listed above.

Participating teams must also include an *honorary member*. The honorary member may be a faculty member from Bicol University, a consultant from a relevant NGO, a community member involved in Albay's various industries, or an expert in the fields included. The honorary member should be a resident of Albay. The honorary member will not be counted as part of the maximum criteria for team members.

The identity of the honorary member will not affect the judging process. The intent of having an honorary member is to add credibility and guidance to the solution that the team will be submitting during the course of the challenge.

Submission Requirements

To compete in the Bulkanomiya Challenge, registered teams must submit the following which can layout and describe the creative approach they are proposing for systems centered on Albay's resiliency and abundance:

1. One (1) Project Narrative
2. One (1) set of Presentation Slides

All materials are to be submitted both electronically and in hard copy. Submissions should provide information of sufficient detail and quality to enable the judges to evaluate the proposed approach. Submissions should describe the overall project goals, long-term vision, and steps and recommendations for initializing prototyping.

1. Project Narrative

The intent of having the project narrative is to provide a summary of each team's approach to addressing the challenge as described above. This is limited to a 1-page, single-spaced narrative with Times New Roman 12 point font and 1 inch margins. The Project Narrative must be submitted electronically as a PDF document and in hard copy printed on A4 paper.

2. Presentation Slides

The intent of having Presentation Slides is to help relay the story of your vision and explain your creative proposal. Participating teams must submit one (1) set electronically in PDF format and in hard copy, one slide printed on each short bond paper. Printing back-to-back is highly encouraged. The slides **MUST** follow the following instructions:

- Presentation slides must not exceed 20 slides (not including title slide, ending slide, and references slide)
- Slides should be in widescreen format (9:16)
- The title slide should include the title of your project and the defining image as slide background, sized to fill the frame (cropping is okay as long as the main image is still recognizable). No additional text or images please.
- Talking points and commentary should be placed in the notes section of each slide, as needed.
- Organize your slides with storytelling in mind - make the judges understand your vision without you being there to present it.
- The presentation slides should have at least one slide dedicated to the **Design Board**. The intent is for this slide to provide a visual explanation of the creative approach you are proposing, its elements, how it will operate, and the overall experience. The Design Board slides should include:
 - a. *Defining Image* - provides an overview of the approach, which may or may not include the site (Mayon Volcano), although it will be highly appreciated if the judges can seamlessly see how the approach is related to the challenge site. The image is meant to help unfamiliar people visualize and understand the team's design solution. The image can come in different forms - a site plan, a blueprint, a sketch, a collage,

an infographic - anything that will best help visualize your solution and encapture its essence.

- b. Renderings, diagrams, maps, charts, or plans that will explain the operations and systems within the proposal (if applicable)

3. Submission Instructions

All submissions should be made electronically and in hard copy. Electronic submissions should be emailed to bulkanomiya.2018@gmail.com, whereas hard copies are to be submitted to Engr. Mary Joy Mandane of the BUCENG Faculty. Following the proposed timeline, **all submissions will be accepted until September 3, 2018, 5:00 pm, Philippine time**. Electronic submissions, in totality, should not exceed **50 MB**.

Judging

Qualified submissions will go through a first round deliberation with the judges. The judges will be comprised of representatives from the project team, Bicol University, and the Albay Provincial Government, among others. The first round deliberation will decide on the top five (5) proposals based on scores following a set of criteria. The final round will be a live project pitching in front of the judges, where each team from the top 5 will be given 15 minutes for both project presentation and Q&A. From this live project pitching, the grand winner will be chosen and announced on the next day during the project closing.

Submissions will be judged on the following criteria:

1. Adherence to the submission requirements as described above.
2. Overall ability of the team to create and communicate a cohesive approach and vision for the resiliency and abundance of Albay's industries in relation to Mayon Volcano.
3. The ability of the proposal to articulate the solution and explain how a prototype can be started from said proposal.
4. The quality of the visual information, especially the team's ability to clearly and effectively communicate their ideas using images, graphics, narratives, and other elements as needed.

Note: The Mayon Volcano is situated in Albay province. Submissions are allowed to include the other provinces in the Bicol region if this helps convey their approach and vision but focus should be on Albay and Mayon Volcano.

The jurors' decision will be final.

Copyright

The participant/s represent and warrant that the work submitted is their own original work and that it does not infringe upon the intellectual property rights of any other person or team. By submitting their work, the participant/s grant the project team a royalty-free license to copy, distribute, modify, publicly display, and otherwise use and authorize others to use the entire proposal or elements of the proposal for any educational purpose and in any media, credited to the participant/s and attributed to the challenge.

Privacy

The information collected for this challenge will only be used to contact undergraduate and graduate student teams in direct relation to the competition. After consultation with the winners, the winners will be announced publicly, and the winning entries, along with the rest of the top five, will be posted on the websites of the funding agency and other stakeholders as needed.

Organizers



Ms. Pamela Luber works for WWF-Philippines as the Integrated Marketing Communications Specialist of The Sustainable Diner, a sustainable consumption and production project focused on the local dining industry. She was a graduate of Save Philippine Seas' SEA Camp program, where she was awarded grant funding by YSEALI and the US Embassy Manila for #ScreenYourSunscreen - a movement aiming to spread awareness on the harmful effects of commercial sunscreen on marine biodiversity. Through YSEALI, she is spreading the concept of "Commservation", or Communications Conservation, which works to bring back the heart in science through meaningful interaction and a deeper understanding of human behavior in order to effectively educate people on the benefits of environmental protection.



Ms. Ante is a Pollution Control Assistant for the Department of Science and Technology V in Albay. She is an active volunteer for various community work in Tabaco City and enjoys working with and empowering the local youth. With a background in Biology, she is set on mastering environmental science and management to help further the cause in policy and community governance.

Mentors



Lance Boyd specializes in project prototype development and open innovation strategies for young and mid-career aspiring leaders. Believing that learning occurs best from experienced leaders immersed in their context, Lance develops case based learning experiences that connect Fellows directly with experts in their field. Lance also helps alumni secure funding to launch place based initiatives addressing tough, systemic problems in their communities through mentorship, regional workshops, and collaboratively running an online impact incubator for EWC alumni. Notable initiatives developed in his classes have earned thousands of dollars in grant funding and include the

ASEAN Peace Accelerator for Social Entrepreneurs, Middle East Environment Leadership Program, Chili Padi Academy Accelerator, and ASEAN Food Rescue, and BEYOND Disaster.



Christina Monroe is an international leadership educator, curriculum designer and program manager with 15 years experience working with professionals and students from 50+ countries. She has won over \$5 million in grants from the U.S. State Department, Corporation for National Service, and National Education Association to develop international and experiential programs for several institutions. She currently directs the Institutes on Environment for the Young Southeast Asian Leaders Initiative launched by President Barack Obama. Since 2009 she has led fourteen Study of the U.S. Institutes for 300 emerging leaders from Asia Pacific, the Middle East, Brazil and Russia with funding from the U.S. State Department Bureau of Educational and Cultural Affairs.

Partner Institutions



**Bicol University College of Engineering
US Department of State
University of Hawaii
University of Hawaii SEA Grant**