TUKLAS means
- DISCOVERY in Filipino language
- TUno sa Kahanan ng PiLipinAS, which translates to “Towards Preparedness in the Philippines”
- Discover and support innovative disaster preparedness solutions in communities
TUKLAS
Core Values
TUKLAS Process

Call for Ideas
- Information Sessions
- Writing Workshops
- Proposal Submission

Selection Process
- Intra-lab Review
- Peer Review
- Writing Workshop II
- Community Review
- Expert Review (Subject Area + Innovation)
- Final Selection Committee Review

8-month Implementation
- Haraya Proj. Mngt. and Sustainability Training
- Community Orientation
- Needs Assessment
- Mentoring and Coaching
- Quarterly Review

Wrap-up
- Sustainability Planning
- Innovations Fair
- Funders Matching
Call for Ideas

- 25 September to 30 November, 2017
- provide an opportunity for every Filipino to apply as an innovator
- give voice to indigenous solutions or ideas arising from the communities
- emphasize importance of addressing distinct needs and perspectives of groups not usually heard or included
Call for Ideas

- 50 information sessions (30 from CSL) and 12 writeshops (4 in CSL) in 37 provinces and cities
- Customization of activities to be more inclusive
- Support provided to those who may have difficulty writing and expressing their ideas
- Partnership building
Selection Process

- Identify the most innovative, most aligned to disaster preparedness, can create significant impact, and viable to scale
- Evaluation from the TUKLAS Community Labs, peer innovators, communities, innovation and subject area experts, and Consortium Leadership
Intra-lab Review

- Main proponents from 88 provinces and highly urbanized cities
- 266 innovation teams comprised of 1,101 team members
- Innovation teams: 50% male and 50% female
- 107 proposals from CSL Lab

266 PROPOSALS SUBMITTED

1101 INDIVIDUALS AND TEAM PROONENTS

- 551 Male
- 550 Female

Sex disaggregated data of individual and team proponents
Intra-lab Review

- Main proponents from 88 provinces and highly urbanized cities
- 266 innovation teams comprised of 1,101 team members
- Innovation teams: 50% male and 50% female

**Submissions from all 17 regions of the Philippines**

**Innovation Type**
- 52 Products and Technology
- 102 Systems and Services
- 112 Combination

**Innovation Themes**
- 23 Education
- 50 Disaster Management
- 2 Energy and Environment
- 5 Livelihood
- 5 Shelter and Infrastructure
- 5 Food Security
- 4 Water, Sanitation, and Hygiene
- 4 Health
- 1 Big Data
Intra-lab Review

- Main proponents from 48 provinces and highly urbanized cities
- Implementation sites: at least 51 provinces and HUCs
- 21 shortlisted proposals from CSL

72 SHORTLISTED PROPOSALS

- 1 Government
- 10 Industry and Private Sector
- 11 Unaffiliated
- 10 Academe
- 25 NGOs
- 13 Community and People’s Organizations

329 INDIVIDUALS AND TEAM PROPOONENTS

- Male
- Female

Sex disaggregated data of individual and team proponents
Some examples

- Indigenous peoples: indigenous shelter design, codification of practices, healing remedies, innovations to disaster management of ancestral forests
- Youth: disaster youth hub, education through board games and game apps. We also had a high school student who submitted a shortlisted innovation
- Women: women as first responders
- Children: child-to-child support in areas of armed conflict, and use of creative process on how to deal with trauma
- Elderly: emergency kits for the elderly, methods to better evacuate elderly
- Persons with disabilities: mapping of persons with disabilities, apps that they can use
Generating Final Scores

- 20% from Peer Rating
- 30% from Community Rating
- 50% from Experts (Subject Area + Innovation) Rating

Metrics include:
- Relevance to DRRM context
- Perceived Impact
- Viability
- Originality
- Adaptability
CENTRAL & SOUTHERN LUZON INNOVATORS
Sustainable Food Production thru Hydroponics Tech in perennially flooded coastal communities
  • MASANTOL, PAMPANGA

Empower and Engage People with Disability in Mainstreaming Disability-Inclusive DRRM
  • CABANATUAN, NUEVA ECIJA

Disaster Preparedness Simulator
  • MANILA, METRO MANILA

watchme, a GPS tracking device to be given to elementary students
  • TAGUIG, METRO MANILA

Enhancing Traditional Food Source Management in Small-Island Tagbanwa Communities
  • BUSUANGA, PALAWAN

Ligtas Pad: Light-based Participatory 3D Mapping
  • DINGALAN, AURORA

DRRM Infomercial for Deaf Learners
  • ANTIPOLO, RIZAL

FLAREMOB: A Systems Framework for Catastrophic Disaster Guidance and Response in Flood-Prone Areas in Marikina
  • MARIKINA, METRO MANILA

Creative Tools for Disaster Resilience Education (Civil Defense Board Game and Card Games)
  • TAGUIG, METRO MANILA

Low-cost Household Rainwater Collection and Filtration System
  • CALAMBA, LAGUNA

Enhancing Traditional Food Source Management in Small-Island Tagbanwa Communities
  • BUSUANGA, PALAWAN
Creative Tools for Disaster Resilience Education
(Civil Defense Board Game and Card Games)

- TAGUIG, METRO MANILA

- Principles of tangential learning to incite full participation and sensory experience through simulated play of board games and card games

- Different multi-hazard scenarios and effects, costs and needs of humanitarian action, logistical requirements/strategies needed to deliver aid

- Increase knowledge, skills, and awareness on multi-hazards, disaster effects, resilience as an attitude

- Develops critical decision making through strategic logistical challenges

- Unique because it inculcates all tropical hazard scenarios and field experience challenges that will induct participants on what to mostly expect from a regular deployment or job
Low-cost Household Rainwater Collection and Filtration System

• CALAMBA, LAGUNA •

• Various mechanisms to ensure potability: non-corrosive roof, sediment trap, pipe filter

• A beneficiary household can collect an average of 35 gallons of water per day for a variety of uses (drinking, washing, etc.)

• The pump is not electric since power outage is common during typhoons

• People [especially the elderly and persons with disability] can easily transport gallons of water indoors
Empower and Engage People with Disability in Mainstreaming Disability-Inclusive DRRM
• CABANATUAN CITY, NUEVA ECIJA •

• “Nothing about us, without us”

• When disasters strike, people with disability were unprepared, helpless as their livelihood are often destroyed, sometimes lives are even lost

• Capacity Building Training: deepen understanding on DIDRR, how to assess and implement DIDRR plans on the barangay level

• People with disability to lead in the promotion of the mainstreaming of DIDRR in their respective communities

• Local government officials to have a change in mindset that people with disability are not merely end recipients of their programs but contributors and good resource of ideas for their DRR programs
Disaster Preparedness Simulator

• MANILA, METRO MANILA •

• **Mobile virtual reality simulation** covering typhoon, thunderstorm, flood, flash flood, storm surge

• Immerse students in a **hydrometeorological scenario**: problems related to the disaster, given the chance to make their own decisions and choices in order to solve the problems

• Addresses the need for an **authentic learning experience through technology**

• Allows the students to become more effective in **dealing with high-stress, dynamic situations** that require quick thinking and management planning, with assurance of physical safety

• Gives its users an opportunity to **analyze decisions** they have made throughout the simulation
FLAREMOB: A Systems Framework for Catastrophic Disaster Guidance and Response in Flood-Prone Areas
• MARIKINA, METRO MANILA •

- Web-based and 2 mobile applications
- Provide Marikina city officials assistance on strategic planning in preparation for upcoming disaster, through disaster resiliency map
- Notify users on their mobile phones for an upcoming typhoon using real-time weather forecasts, and provide the users the fastest and safest route to designated evacuation centers
- Monitor the delivery of the relief goods to the evacuation centers from a starting point to a destination point using Global Positioning System (GPS)
- Allow residents to issue SOS messages during emergency; provide barangay officers real-time locations of their barangay vehicles (equipped with GPS transmitters) to quickly respond to messages
watchme, a GPS tracking device to be given to elementary students

- TAGUIG, METRO MANILA

- Low-power, cost-effective, accurate GPS tracking device working on 2G signals in order to better manage location tracking on a daily basis, as well as during disasters and incidents

- GPS watch, powered via rechargeable lithium-ion polymer batteries, with a local SIM card installed for data

- Parents and school administrators/local officials may check on their children/students daily and provide immediate location information to rescuers during emergencies

- Longer battery life than any smartphone

- Not easily lost, unless intentionally removed
Enhancing Traditional Food Source Management in Small-Island Tagbanwa Communities
• BUSUANGA, PALAWAN •

- Aims to document the traditional food sources in their respective domains, and their Indigenous Knowledge, Practices and Systems (IKSP) in food production and management
- Aims to enhance technologies that increase food production, improve quality and variability of local foods and increase their shelf-life
- Activities: seed banking, flour making from local root crops, and food technology and innovation development
- Complementary tracks: development of basic education curriculum based on the IKSP for integration of Tagbanwa DRR action plans into the BDRRMP
Sustainable Food Production thru Hydroponics Tech in perennially flooded coastal communities
• MASANTOL, PAMPANGA •

• Help to supplement their income and later developed as food production and an alternative source of livelihood

• Aims to develop into a resilient and sustainable community with a climate adaptive food production using available resources in the community and for adjacent coastal communities to adapt similar climate change agricultural technologies with food available all year-round

• Serve as a preparedness effort that would tide them during the disaster events with crops and food available to them

• Water hyacinth can be used as material for charcoal briquettes and other alternative source of livelihood
Disaster Risk Reduction and Management (DRRM) Infomercial for Deaf Learners

• ANTIPOLO, RIZAL •

Aim: fully understand the underlying concepts of calamities and what precautionary measures to take once disasters arise; develop DRRM Infomercial for the Deaf

Electronic material with: (a) general information on natural calamities, (b) emergency preparedness materials, and (c) safety measures before, during and after the calamities

An inset of a Sign Language Interpreter will be included in the infomercial for deaf learners to fully grasp its content

Consultative meetings, validations and capability building

Allow the regular school teachers who have no prior knowledge or training of Sign Language to teach Disaster Risk Reduction Management to the Deaf learners enrolled in their classes
Ligtas Pad: Light-based Participatory 3D Mapping

- Dingalan, Aurora -

- Local knowledge of space and other forms of spatial awareness (biodiversity in the area, topography, infrastructures) are key elements in community resilience.

- Use light projections to project the data into the 3D map models; at the top is a light source, the middle, a slide or transparency tray and below is the 3D mode.

- Advantage: actual 3D map is not fixed and can be used to show data regarding flash floods, change the transparency slide to storm surges, show both disaster scenarios at the same time, etc.

- Isolate and overlap disaster data; make a bare map of the community which can be used for land use, agriculture, biodiversity mapping, ancestral land issues.

Central Southern Luzon Innovation Lab

Tuklas Innovation Labs - Towards a Kayaanang ng Pilipinas

www.tuklas.ph | facebook.com/tuklasdotph | twitter.com/tuklasdotph
Future Activities

- Innovators’ Implementation from April to November 2018
- Community Lab support
  - Capacity building
  - Mentorship matching
  - Peer-to-peer learning
- After TUKLAS
  - Sustainability Planning
  - Sustainability Matching / Going to market
- Building a Community of Practice
Opportunities for Collaboration

• How can we improve the TUKLAS process?
• How can we engage with / learn from / collaborate with other CARE innovation projects?
• How can the TUKLAS process be implemented in other countries, processes, complex issues?
• How can we fund future iterations of TUKLAS cycles?
TUKLAS Innovation Labs

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