

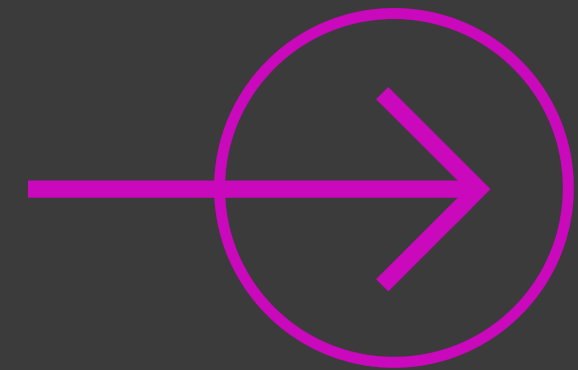


SCIENCE COMMUNICATION & SOCIETAL IMPACT

# Towards a national science communication framework

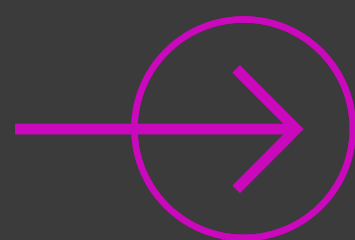
Kamila (Kami) Navarro  
National University of Singapore  
Pinoy Scientists

5 OCTOBER 2022





# Content



**01**

Science communication in the Philippines

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**02**

Elements of a science communication framework

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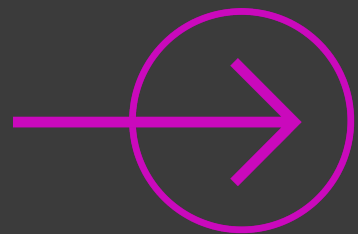
Group work: framework mapping exercise

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SCIENCE COMMUNICATION & SOCIETAL IMPACT

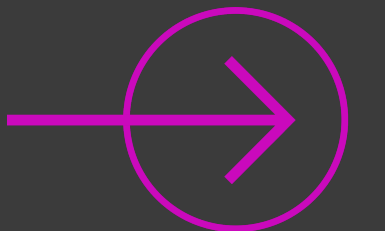
# Science communication in the Philippines





# Fast facts: PH 101

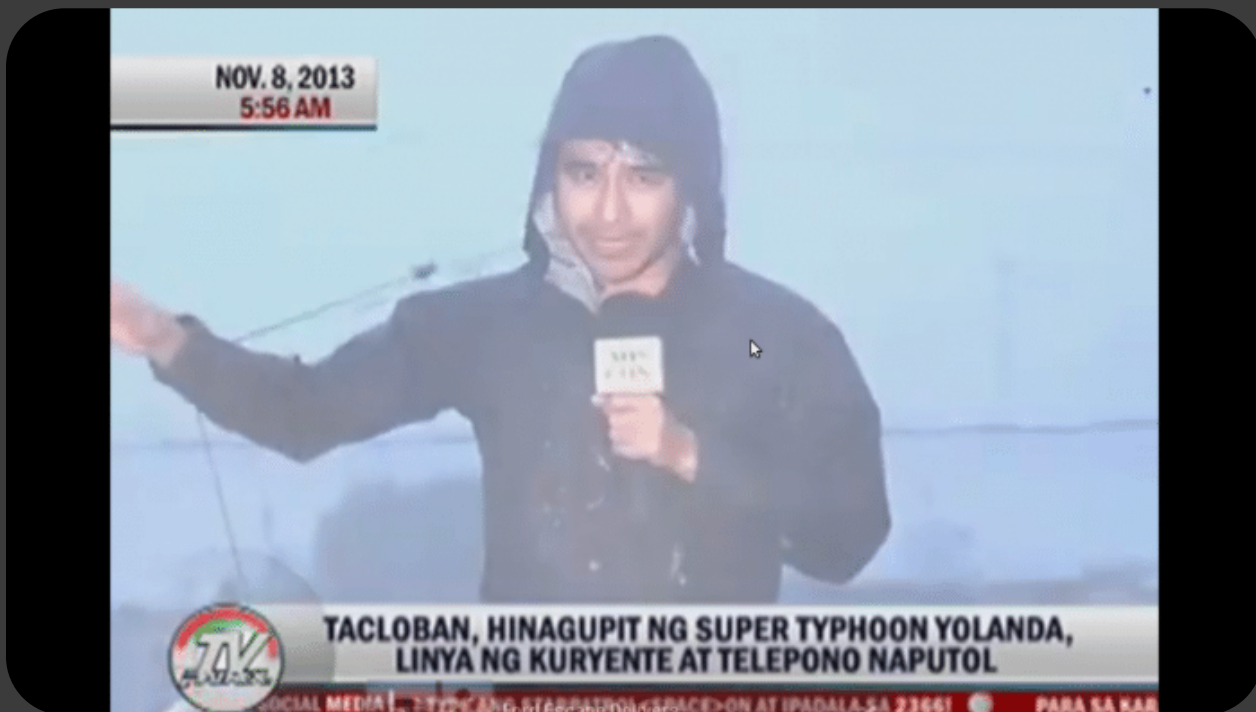
- 7,100+ islands in Southeast Asia
- Formerly colonized by Spain and the USA
- 180+ languages (official: Tagalog and English)
- Economic center: Metro Manila



# Key moments in modern PH sci comm



- Golden Rice: Vitamin A-enriched GMO rice
- PH first country to approve commercial cultivation in 2021
- Pro-GR: 'information deficit'
- Anti-GR: 'democracy deficit'



- Supertyphoon Haiyan in 2013
- Public (mis)understanding of 'storm surge'
- Problems in institutional risk communication

# Key moments in modern PH sci comm



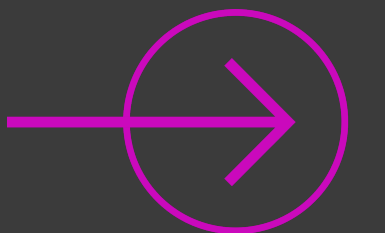
- Passing of the Philippine Space Act
- Challenge: to prove need for space agency
- Underscores importance of effective science communication in amassing public support



- Botched Dengvaxia vaccination program
- Breakdown of public trust
- Rise of 'medical populism'
- Emphasized need for clear, consistent messaging from non-partisan experts

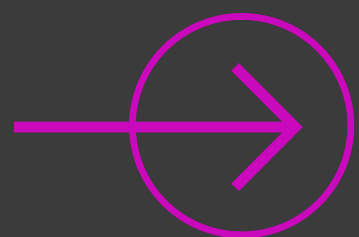
# Current state of PH sci comm

- Many efforts (e.g: science centres, training, etc) concentrated in "Imperial Manila"
- Growing awareness of sci comm, but dampened by the lack of practitioners and training
  - No dedicated academic training program
- Focus on 'traditional' outputs, e.g: publications, seminars
- Efforts exist, but are fragmented and not always institutionalized





# Why do we need a framework?



**01**

Starting point for mapping sci comm efforts

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**02**

Identify current strengths of sci comm ecosystem

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**03**

Identify gaps and priority areas in sci comm ecosystem

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**04**

Identify avenues for collaboration in sci comm

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# Elements of a science communication framework

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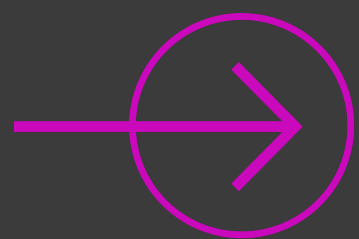


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# Sample science communication framework

- Published by the EU in 2012
- Studied science in society across 38 countries
- Provides a validated, practical framework for assessing science communication efforts

# Framework elements



- Sci comm infrastructure
- Political attention
- Number and diversity of sci comm actors
- Research dissemination traditions
- Public attitudes towards science
- Number and qualifications of science journalists

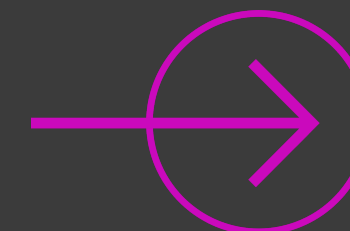


## ● Sci comm infrastructure

- No. of national scientific journals
- No. and regularity of science sections in national papers
- No. and quality of science programs on national TV/radio

## ● Political attention

- Amt of funding and support for specific sci comm initiatives
- No. and quality of government science activities (e.g: science fairs, weeks, etc)
- Existence of formal government policies



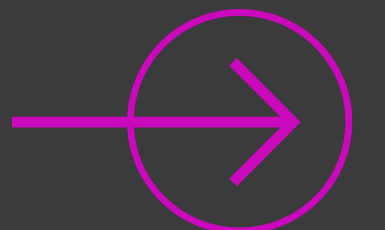


## ● Number and diversity of sci comm actors

- Who engages in sci comm?
  - Government
  - Higher education institutions
  - Informal education
  - Traditional media
  - Social media
  - Civil society
  - Key influencers

## ● Research dissemination traditions

- Academic tradition for disseminating scientific results
  - Publications
  - Debates
  - Stakeholder engagement



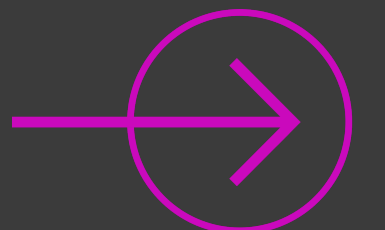


## ● Public attitudes towards science





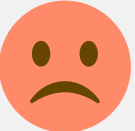

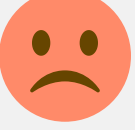

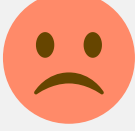
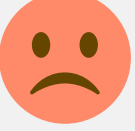



- Presence and regularity of national surveys on perceptions towards S&T

## ● Number and qualifications of science journalists

- Presence of professional science journalist groups

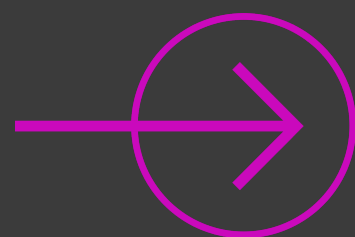


# Classifies sci comm culture as:

Element	Consolidated	Developing	Fragile
Sci comm infrastructure			
Political attention			
No. and diversity of sci comm actors			
Research dissemination tradition			
Public attitudes towards science			
No. and quality of science journalists			



# Framework limitations



**01**

Does not account for traditional knowledge

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**02**

Does not reflect growing trend for open science

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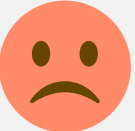







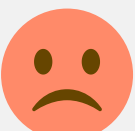
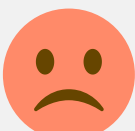
**03**


Does not consider the presence of training programs/other forms of institutional support

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# Applying the framework

Element	Australia	Philippines	Singapore
Sci comm infrastructure			
Political attention			
No. and diversity of sci comm actors			
Research dissemination tradition			
Public attitudes towards science			
No. and quality of science journalists			



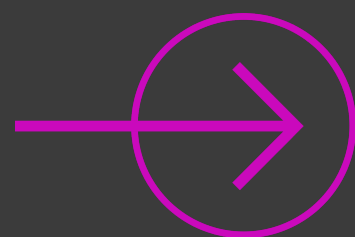
Your turn!  
[bit.ly/AESISmapping](https://bit.ly/AESISmapping)



SCIENCE COMMUNICATION & SOCIETAL IMPACT



# Mapping exercise



**01**

What kind of infrastructures for supporting sci comm exist? How many of them are there?

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**02**

How much political support does sci comm receive? In what form?

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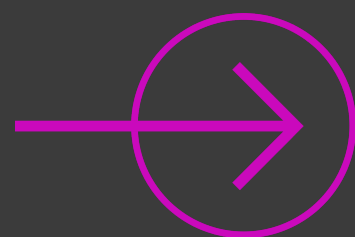
**03**

Who are the major players in local sci comm?

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# Mapping exercise



**04**

How is scientific research disseminated? Is it through one-way or two-way communication? Is research openly accessible?

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**05**

How is science perceived by the public? Are there regular surveys for assessing perceptions on science?

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**06**

How many trained science communicators are there? Are there training programs for sci comm?

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## Discussion

**Based on the mapping exercise, what are the current strengths of your local sci comm ecosystem?**

**What aspects could be improved?**

