PULSE
STORIES

01.
HAZED &
CONFUSED

PULSE LAB JAKARTA

Australian Aid
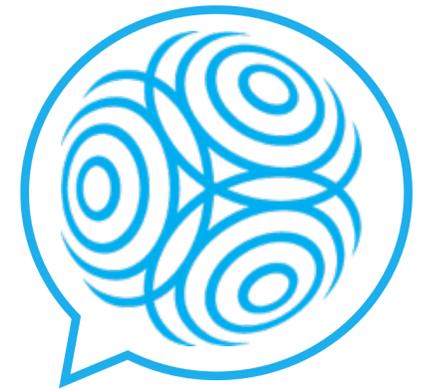
Welcome to the first edition of Pulse Stories.

At Pulse Lab Jakarta, one of our design principles is to put citizens at the centre of our innovation processes. Pulse Stories is part of our work to better understand the life context of the people we serve.

Pulse Stories capture the anecdotes and inspiration gathered during Pulse Lab Jakarta's field trips to different parts of Indonesia. We hope that, over time, these stories form patterns that will inspire our data innovations and the development of tools for public administrators.

For our first edition, we take you to Pontianak, a city in West Kalimantan that was severely affected by forest-fire haze at the time of our visit. We hope you enjoy the stories!

The Pulse Lab Team

While the Media Exposes the Impact of the Haze…

….It is Business As Usual(-ish) Out There

"It is no longer a disaster, it has become an annual festival!"

-Rama, Student
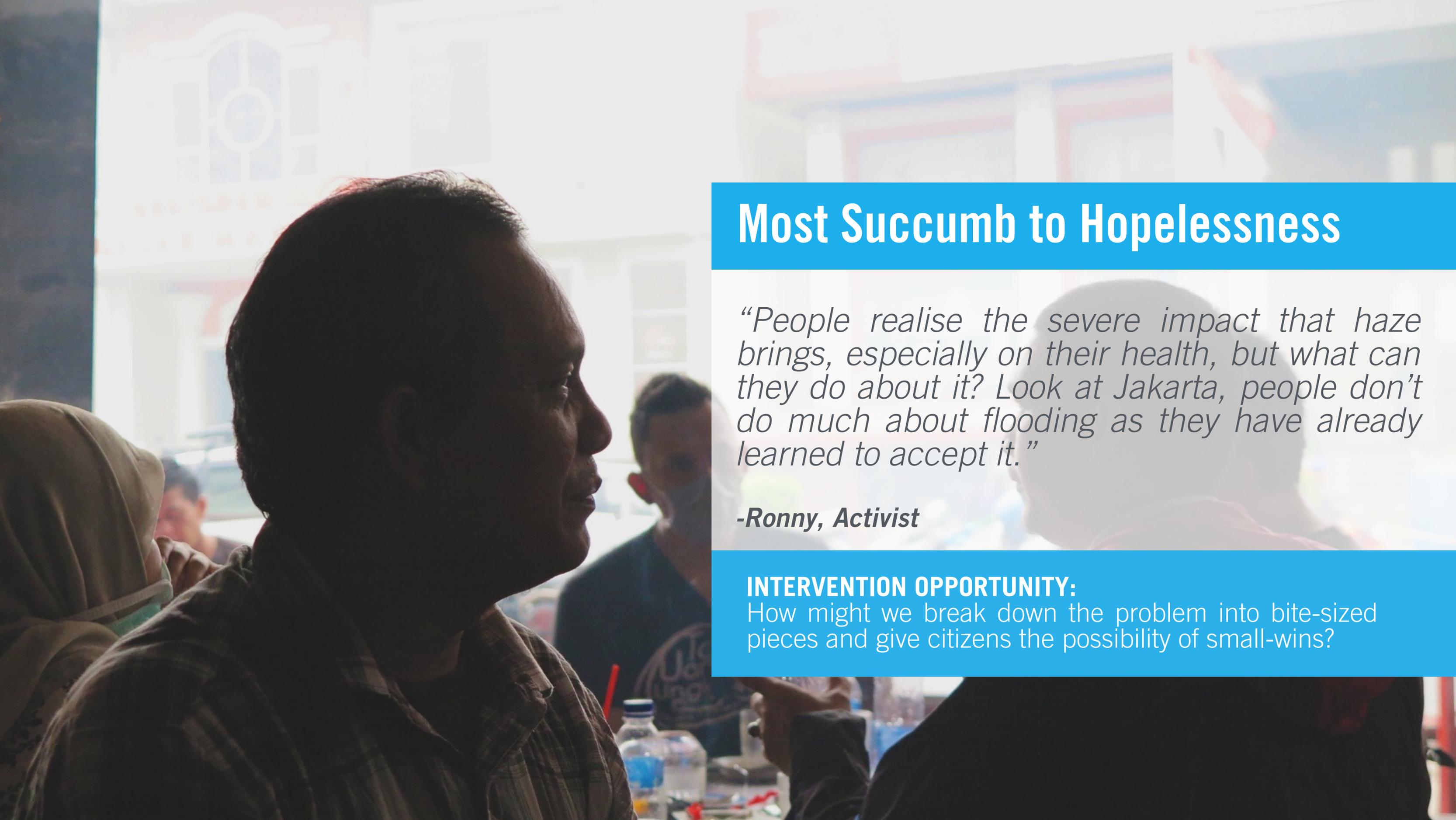
Most Succumb to Hopelessness

"People realise the severe impact that haze brings, especially on their health, but what can they do about it? Look at Jakarta, people don't do much about flooding as they have already learned to accept it."

-Ronny, Activist

INTERVENTION OPPORTUNITY:
How might we break down the problem into bite-sized pieces and give citizens the possibility of small-wins?

Some Resort to the Blame Game…

"Why should I wear a mask? What needs to be done is for government to take action against the companies that started it!

-Citizen, upon being given a mask during a demonstration

Our Take: There is a need for a two-way intervention

While much government attention has been directed towards fire prevention and law enforcement, it is equally important to drive behaviour change in society.

People tend to "normalise" the situation and defer to the government to fix the issue. However, the complexity of solving forest fire issues calls for "the next best thing." We need to encourage people to change their behaviours and habits to minimise the impact of the haze at least on themselves and their families.

INTERVENTION OPPORTUNITY:
How might we encourage citizens to help themselves to minimise the impact of haze?

Words on the street…

"Since the haze, prices of commodities have risen because a lot of transport has been cancelled."

-Ronny, Activist

"People complain about haze all the time on Facebook and Twitter, but for action people usually create an open Whatsapp group"

-Rama, Student

"I think that there's no one who relocates because of health reasons. The people who relocate are usually exposed to fire-risk since they live near hotspots."

-Reza, District Government Official

But there is light at the end of the haze…

Meet the local gems…

① Kabupaten Kayong Utara:
We did it even before village law got cool!

Back in 2007, it was the poorest Kabupaten in West Kalimantan. Now, despite having the lowest District Revenue (PAD) and District Budget (APBD) in West Kalimantan, Kabupaten Kayong Utara provides free healthcare, free education, and university scholarships to its citizens. All done by slashing administration expenses and through ongoing discussion with CSOs and communities.

WHAT WE CAN LEARN FROM THEM:
Government - Community collaboration, CSO participation, Village Development Planning Process

Meet Laili to Learn the Art of Partnering with Villages

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She's the executive director of Gemawan, a CSO that delivers community and village government empowerment programmes. Her organisation also runs a *village law readiness* program with its partner villages, called "Sekolah Desa." Kabupaten Kayong Utara (see previous slide) is one of the districts that has partnered with Gemawan.

WHAT WE CAN LEARN FROM HER ORGANIZATION:
CSO - Village government collaboration, Village Law Implementation, Sekolah Desa Module

3 Meet Arief: All about Inclusive Technology

His vision is to make technology accessible for everyone. He believes that inclusive technology enables citizens to know what's rightfully theirs, so he strives to assembly affordable tech for people. To do that, he collaborates with the hacker community in Pontianak, and also actively participate in DIY tech forums.

WHAT WE CAN LEARN FROM HIS INITIATIVES:
Designing for affordability, Collaboration with tech/hacker communities, Putting local wisdom into technology

4 Drone Pangan: An Affordable Innovation

Drone Pangan is an initiative spearheaded by the Swandiri Institute (SI) and Pulse Lab Jakarta. It is equipped with an infra-red camera that can be used to detect the health of crops, allowing farmers to pinpoint the position of the sick crops so they can focus maintenance areas. SI assembled the drones themselves by learning from DIY forums. The technology also has the potential to be used in predicting crop yield (which can be useful for village planning processes).

MOVING FORWARD WITH DRONE PANGAN:
At the end of Sept 2015, SI will organize "School of Drone," a week-long drone assembly and data analysis workshop. The workshop will be attended by several village/district representatives, who will be the "champions" for operating Drone Pangan in their area.

Spatial Mapping using Drones: Providing a Bird's-eye View

"I never realised how ruined our village is. Much of the land is no longer ours…"

A Kepala Desa of a village in Sambas, when shown a spatial map created by SI drone, overlaid with a map of concessions.

WHAT WE CAN LEARN FROM THIS INITIATIVE:
For villages to access village funds, they need to have spatial planning in place. Is there an opportunity to help villages to plan better by utilising drone mapping?

The DIY Drone Workshop

Swandiri and Pulse Lab Drone Project: Moving from Agriculture to Village Drone

To create a more compelling value proposition, it has been agreed that villages that are planning to use drones will not only get training on utilising it for agriculture projects, but also as a spatial mapping and as a village planning instrument.

village borders

village potential

land use mapping

conflict resolution

spatial mapping ◀ **agriculture management** ▶

disease control

yield production

fertiliser usage prediction

disease prediction

better planning of village resources   **+**   **more efficient agriculture**

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Export Map   Bookmarks
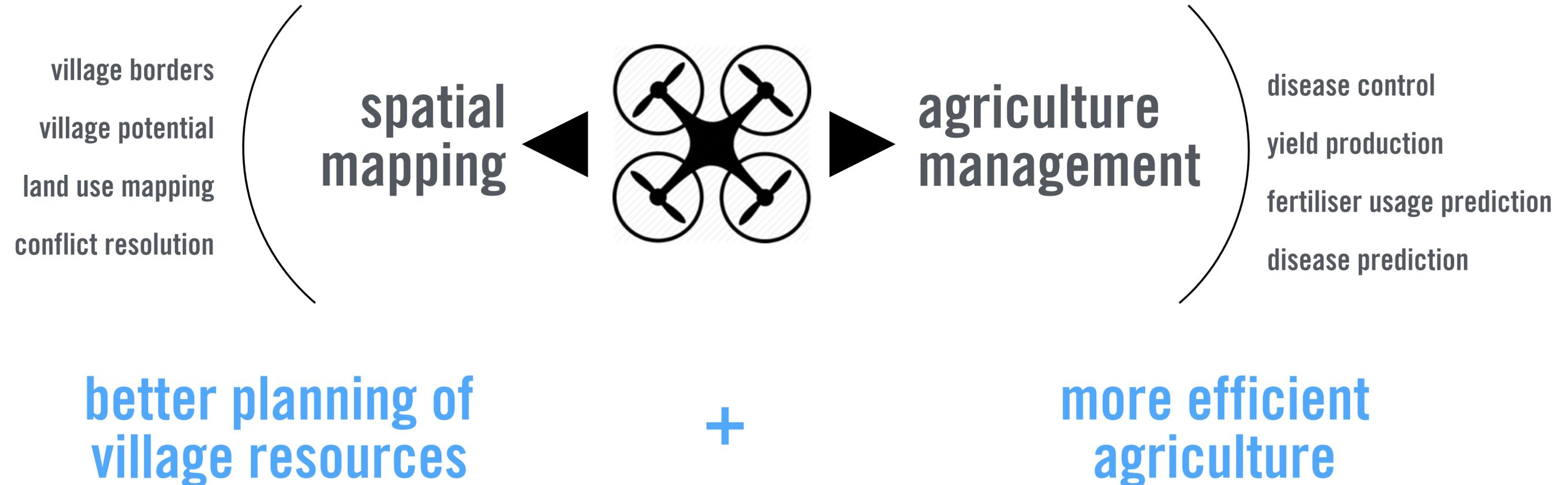
❻ EI Spatial Transparency

An open data initiative started by the Swandiri Institute, using data that is sourced from various CSOs & the district government.

http://editor.giscloud.com/map/230430/eispatialtransparency

WHAT WE CAN LEARN FROM THIS INITIATIVE:
Potential to get data to inform haze-related projects from the CSO coalition.

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Concession and Concession

Mining and Timber

Mining and PalmOil

PalmOil and Timber
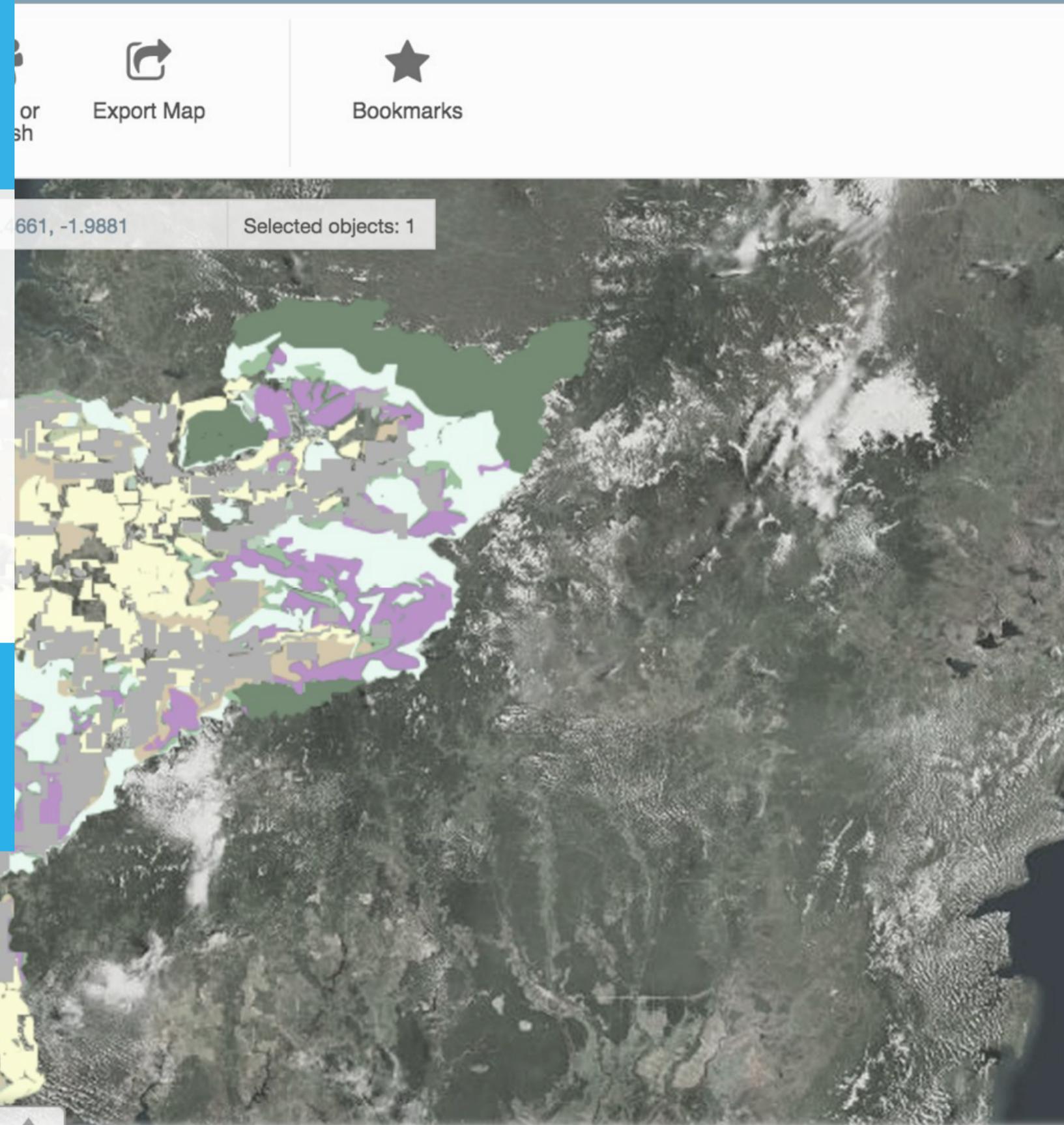
Logging Within Forest Area 2000
Logging Within Forest Area 2013
Timber Within Forest Area 2000
Timber Within Forest Area 2013
PalmOil Within Forest Area 2000
PalmOil Within Forest Area 2013

Data

Powered By GIS Cloud — For Free use only. © Swandiri Institute - PWYP Indonesia, Bing Maps Satellite © Micros...

Next Steps for Pulse Lab

Where is the Data?!

Leverage these approaches to bring the data innovations into public policy and development programmes.

Spin-off Research

Learn more from the positive outliers in village governance and gather additional inspirations and stories in Kayong Utara District. Understand how data could be better generated, presented, understood and used by communities.

Reaching Out to Communities

How to collaborate with unusual suspects? Connect the local techies, makers and hackers to other interested communities as well as to development programmes to facilitate the diffusion of the data innovations.

More of these Initiatives!

The project with the Swandiri Institute emerged from our Data Innovation challenge, run in early 2015. As interest from communities in new tools continues to rise another data innovation challenge will create space for more experimentation and learning.

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