



SDG
ACCELERATION
ROADMAP

UNLEASHING THE POWER OF
PRIVATE-SECTOR DATA IN THE GLOBAL SOUTH



In focus

Pulse Lab Jakarta's
Role Catalysing
Public-Private Partnerships
in Asia

In Focus

Pulse Lab Jakarta's Role Catalysing Public-Private Initiatives in Asia

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Main author

LIRNEasia

Associated researcher

Tom Orrell, DataReady

Edition

Nicolás Marín, Cepei

Ricardo Corredor, Cepei

Executive office

Philipp Schönrock, Director, Cepei
Alexandra Roldán, Strategic Planning,
Cepei

Translation

Interpreting Colombia

Graphic design

David Pachón Cortés

Credits

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Abbreviations

| | |
|-------|---|
| API | Application Programming Interface |
| AUD | Australian Dollar |
| CDR | Call Data Records |
| CEE | Center for Continuing Education |
| COI | Caribbean Open Institute |
| CSR | Corporate Social Responsibility |
| DFAT | Department of Foreign Affairs and Trade (Australia) |
| DPL | Data Protection Law |
| GDP | Gross Domestic Product |
| GIZ | The Deutsche Gesellschaft für Internationale Zusammenarbeit |
| GOI | Government of Indonesia |
| HDI | Human Development Index |
| ILO | International Labour Organisation |
| IOM | International Organisation for Migration |
| KI | Key Informant |
| KII | Key Informant Interview |
| KSI | Knowledge Sector Initiative |
| LDRI | Local Development Research Initiative |
| PEN | National Economic Recovery Programme |
| PIA | Privacy Impact Assessment |
| PLJ | Pulse Lab Jakarta |
| PTKAI | Indonesian Ministry of Transportation Railway Company |
| PWD | Persons with Disability |
| SDGs | Sustainable Development Goals |
| SME | Small & Medium Enterprise |
| UN | United Nations |

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1. Introduction

With only seven years left to achieve the Sustainable Development Goals (SDGs), Member States, civil society, and the private sector must collaborate to monitor progress toward the 2030 Agenda. The private sector's extensive data can be the key to meeting the goals. Combining the private sector's expertise with the public sector's capacity can accelerate sustainable development.

In 2021, LIRNEasia (a pro-poor, pro-market think tank working in emerging Asia) and four other partners launched a project to a) understand the extent to which private sector has been involved in activities that enable the use of data for the measurement and achievement of the SDGs, b) understand the barriers faced in the process of private, public and civil society sectors working together on data for SDGs, c) catalyse and increase the participation of private sector in the data for SDGs movement. The four organizations were Cepei (a think tank working in Latin America), Local Development Research Initiative (LDRI) in Kenya, the Caribbean Open Institute (COI) in Jamaica, and the Centre for Continuing Education (CEE) based in Palestine.

The first research question of the consortium was: what is the private sector doing to make more and better data available to achieve and monitor the SDGs in the Global South? To answer it, the five organizations conducted a structured mapping of public-private data partnerships¹ in the Global South. The study mapped over 400 public-private data partnerships of all sizes of companies across Global South.

Each region then selected one or two examples of data partnerships that would be explored in depth, in a case study format. These eight in-depth case studies

¹The term data partnership implies two or more entities involved in data sharing. For this mapping study LIRNEasia defined data sharing as a collection of practices, technologies, cultural elements and legal frameworks that are relevant to transactions in any kind of information digitally. Data sharing a joint use of resources (data). Data sharing can happen as a business transaction, or it can be an in-kind transaction with open access to data

of public-private data partnerships are an attempt to understand the context in which a partnership worked, the challenges faced, and what impact the partnership had. Comparative lessons for data partnerships and data actions² will be drawn out from these case studies to make recommendations at regional and global level.

This report presents one of the case studies in the Asian region, as documented by LIRNEasia.

During the mapping study in the Asian region, Pulse Lab Jakarta (PLJ), emerged as a unique entity in the data action realm. Global Pulse was a project initiated under United Nations Secretary-General Ban Ki-moon, and was part of the United Nations Global Pulse network. The Government of Indonesia (GOI) decided to collaborate with the United Nations by becoming an open laboratory to experiment with the use of big data for policy making. The expressed interest of both parties (UN and GOI) was formalized with a Memorandum of Understanding and established PLJ as the first Pulse Lab in Asia-Pacific region in 2012. PLJ is administrated by UN compliances but also works closely with the private sector in the region and GOI. The Australian Government has provided core funding for PLJ since 2015.

PLJ is a regional organisation with presence across nations in the Asia Pacific. It plays a brokerage role through their initiatives and the mapping study revealed that PLJ connects actors in the data sharing ecosystem. This unique proposition persuaded LIRNEasia to study PLJ data actions in detail in order to shed light on the role intermediary organizations can play in catalyzing and scaling data partnerships.

LIRNEasia collected data for the case study through Key Informant Interviews

² The mapping study categorized data actions into actions such as: 1) Capacity building and skill sharing, 2) Data analysis, 3) Data collection, 4) Data governance, 5) Data infrastructure, 6) Data mapping, 7) Data migration, 8) Data monitoring, 9) Data for impact assessments and measurement and 10) Data sharing. There can be a lot more actions under data actions.

and desk research. Key Informants predominantly mentioned six data actions implemented by PLJ from 2014 to the present. This report infers those six data actions using information provided by KI and evidence gathered through desk research from July to September 2022. This case study used that information to explore the enabling environment and challenges for data partnerships, before finally proposing actions to promote public-private data partnerships.

Section two of this report provides background details of PLJ, which includes evolution of PLJ to a regional organization under UN Global Pulse and rationale of selecting PLJ for the case study. The same section provides details on selected data actions and guiding principles for PLJ to engage in those actions.

Section three explains the enabling environment for data actions related to PLJ initiatives described in Section 2. Enabling environment for data actions is twofold: local environment and institutional environment. In addition, this section reports incentives to undertake data partnerships: nature of the organisation and shared motivation.

Section four of the report is about data action challenges. Key Informants and reviewed literature intimated several challenges, and we broadly cluster these challenges into Organisational Culture, Data Compliances and Limits of public data.

Section five presents cross cutting themes of data actions initiated by PLJ. In this context, the primary theme of PLJ data actions is social inclusion; with greater attention to gender equality, inclusivity of persons with disability and vulnerable communities such as senior citizens.

Section six and seven are for discussion and conclusion respectively. Discussion section presents high-level findings and interprets findings according to case study objectives. The conclusion emphasizes the main challenge encountered by PLJ: connecting silos in the data collaboration ecosystem through sustainable data collaborations.

Section eight provides three generalized recommendations to promote data collaboration among private and public sector entities. Firstly, there is a need for a systematic approach for private sector data collaboration and it should cover end-to-end processes. Secondly, greater attention to data ethics by all the actors in the ecosystem to minimize risks associated with data sharing. Thirdly, Open Source should be promoted to ensure that data actions are benefited by the wider community.

2. Background to Pulse Lab Jakarta

This section describes the evolution of *Pulse Lab Jakarta* as a regional organisation, their *data actions* in detailed and *guiding principles* of those actions.

2.1 Conception and evolution of Pulse Lab Jakarta

In 2009, the United Nations launched Global Pulse, which is a hub for experimentation to support and advance the UN Charter. The hub brings together governments, UN entities and partners from academia and the private sector to design, co-create and scale innovations. The hub uses a range of approaches and tools, including data science, strategic foresight, behavioral science and digital technologies, to build dynamic and relevant 'next-generation' United Nations. The hub comprises Pulse Labs in the USA (New York), Finland (Helsinki), Uganda (Kampala) and Indonesia (Jakarta) ("UN Global Pulse," n.d.).

The Pulse Lab in Indonesia [Pulse Lab Jakarta (PLJ)] is an organization established in 2012. PLJ serves as a "joint data innovation facility" ("Pulse Lab Jakarta," n.d.) under the United Nations and the Indonesia Government [specifically, the Ministry of National Development Planning, (Bappenas)]. The Lab generates insights for policy by combining data science, social research, data from social media, mobile communications, and other sources.

PLJ engages with actors across the government, private sector and civil society. The organization is an "analytic partnerships accelerator" that applies

“mixed-methods approaches in three spaces: solution, problem and identity. In the solution space PLJ uses data for innovations and creates prototypes for stakeholders. In the problem space the organization uses mostly qualitative research to understand issues and existing practices which might (or might not) require digital solutions. The latest restructuring of PLJ established a partnerships and advocacy unit to work in the identity space. In this space PLJ focuses on identifying and developing collaboration with institutions, understanding their mandates, the nature of systems, incentives and barriers to change (Pulse Lab Jakarta Repositioning 2.0, 2020). In addition, the organization looks to link government, private sector, and technical expertise to enable sustainable uptake and application of the technologies (Department of Foreign Affairs and Trade Australian Government, 2021).

Pulse Lab Jakarta identifies two main strands of ambition: driver of innovation and a catalyst for the data/evidence ecosystem. As a driver of innovation, it promotes big data in policy making and develops tools to improve data-driven decision making. The second ambition (catalyst for the data/evidence ecosystem) refers to regulations and standards governing effective data sharing challenges (Department of Foreign Affairs and Trade Australian Government, 2021).

2.1.1 Funding and operating model

PLJ received initial funding from UNICEF, Rockefeller Foundation (through UN Global Pulse hub) and in-kind contributions from Government of Indonesia (GOI).

In 2014, Australia funded PLJ to support a project on reducing maternal mortality under the Australian-Indonesian partnership. In 2015, Australian Department of Foreign Affairs and Trade (DFAT) agreed to core fund PLJ for 4 years, providing a grant of AUD 6.7 million. Funds were initially channeled via Knowledge Sector Initiative (KSI) and subsequently through a direct relationship between DFAT and UNDP. In addition, DFAT provided project specific funding during these years to work on specific research areas such as financial inclusion and micro

enterprises. In 2019, DFAT approved grant funding of up to AUD 6 million and is currently due to finish in June 2023. In around 2019, PLJ transformed from 'prototype application' to an 'analytic partnership accelerator', which required innovative and sustainable partnerships with other funders such as the Danish government, UNDP Innovation for Development Initiative and German GIZ.

In the context of data and data partnerships, PLJ plays primarily what could be described as a brokerage role. As will be discussed in the following sections, PLJ conducts research and engages in data partnerships to produce visualisation tools and reports.

2.2 Rationale of selecting Pulse Lab Jakarta

In this section we present the *rationale behind PLJ's selection for this study*.

Our study of PLJ is one of a series of case studies conducted by the project partners in this project with the intent of understanding the role of different entities play in data.

There are several reasons for selecting PLJ as a candidate for a case study following the regional mapping study. First, PLJ is a different kind of organization to what was typically recorded in the mapping study in terms of its role. Most of the organizations involved were private sector companies who partnered with government organizations. But PLJ is neither, instead playing the role of a broker of data products and data related engagements while sitting in between government and private sector. Documenting this role is important, we believe, in understanding how third parties can play a role, even if they aren't exactly like PLJ.

Secondly, the fact that PLJ is part of the larger UN system allows it to discuss data-related engagements with multiple stakeholders: private sector, government, and the Indonesian public. As validated by Key Informants (KI) in this case study, formal partnership with government entities such as the Indonesian Ministry of National Development Planning (Bappenas) opened the door for PLJ to engage in numerous development-related projects, while the association with the United Nations afforded PLJ both resources and the UN name that has allowed it to engage with bigger stakeholders like Twitter and Facebook (for example, UN Global Pulse has a multi-year access agreement with Twitter). Given the importance of various UN organizations in the achievement of the SDGs, it seems important to understand how such organizations can be further effective.

The third reason lies in PLJ's mandate and the content of its work. PLJ leverages data in service design (the activity of planning and arranging people, infrastructure, communication and material components of a service in order to improve its quality). The service design activity centres around social inclusion: gender equality, disability and vulnerable communities, all three of which are themes that fall within the SDGs. In addition to using data for its own projects, PLJ also assists governments, development partners and UN agencies to better leverage their data and advocates for using data and technology platforms ethically ("Pulse Lab Jakarta," n.d.). Therefore, that the kind of data-related projects PLJ engages in have clear social utility and link to a range of SDGs, fits our project's theme of data for development.

Fourthly, PLJ's work involves partnerships with a range of stakeholders from the private and public sector: various Indonesia government bodies (e.g., Bappenas), international organizations (ILO), mobile network providers (Digicel), and joint international initiatives (Jakarta Smart City). It's uniquely positioned to see both sides – that of the public sector/government and of the private sector – and the challenges faced by each.

2.3 Data actions and guiding principles

This section details some recent PLJ projects and their respective data actions, namely 1) Dashboard Prototype to Assess Post-Disaster Displacement; 2) Using Big Data Analytics for Improved Public Transport; 3) Feasibility Study: Identifying Trends in Discrimination Against Women in the Workplace in Social Media; 4) Dashboard to Map Smallholder Farmers; 5) Dashboard to Monitor SDG Progress; 6) Haze Gazer Crisis Analysis Tool. The description on data actions is contextualized on two aspects: socio-economic condition of Indonesia and evolving policy landscape in the region. The subsection on guiding principles of data actions explains two guiding principles of data actions: Indonesian government's priority for SDGs and Data ethics.

2.3.1 Data actions by Pulse Lab Jakarta

Indonesia's economy has grown steadily to become a middle-income country in the mid-2000s and upper middle-income country in 2019 (pre-pandemic). The country's economic growth accelerated at the end of 2021, reporting 3.7 growth and the momentum carried into the first quarter of 2022 with the economy growing at 5% (YoY) (World Bank, 2022). Further, the country has achieved a growth in social development (an HDI of 0.705) in 2021 (United Nations Development Programme, 2022).

This economic and social development of the country has brought about another change, making the language of evidence-informed policy making, commitment to research and concepts such as 'knowledge sector' far more commonplace within the Indonesian Government. This shift has been a significant factor in facilitating the positive contributions made by PLJ (Department of Foreign Affairs and Trade Australian Government, 2021).

On the other hand, Indonesia contends with a myriad of issues ranging from natural disasters, poverty, and poor women's rights. Much of PLJ's data-related work serves to fill an apparent gap in data-related work aimed at alleviating these issues. PLJ's projects largely involve data analysis that is synthesized into

dashboards (data visualizations; much of these dashboards are produced for the government) and project reports (data reporting) (note that from hereon, when this report refers to “data actions”, it is mainly referring to the aforementioned three actions: data analysis). For example, Haze Gazer, a crisis analysis/visualisation dashboard, is designed to support Indonesia's local and national disaster management authorities' disaster management efforts by providing authorities with real-time information on fire and haze hotspots, the locations of members of the population most vulnerable to fire and haze, and the behavior of those affected by disasters (Pulse Lab Jakarta, 2016). The dashboard leverages data from satellites, baseline information on the population, and citizen-generated data. Another example is PLJ's Dashboard Prototype to Assess Post-Disaster Displacement, a tool that leverages pseudonymized mobile positioning data to provide authorities with a sense of post-disaster population relocation, so that authorities may better coordinate disaster response (Pulse Lab Jakarta, 2019). Another 2014 feasibility study centered around identifying trends in discrimination against women in the workplace, is an example of PLJ's data reporting-related work (UN Global Pulse, 2014). This project involved the perusal and analysis of tweets to identify which of a set of predetermined topics (e.g., sexual harassment in the workplace, discrimination in job requirements, the burdens of working women etc.) saw a sufficient volume of tweets that would warrant further analysis, to gain greater insight into incidents and public perception towards discrimination. The importance of PLJ's data-related work is, therefore, apparent.

Table 1 summarises some significant data actions initiated by PLJ in the recent

Table 1: Significant data actions by PLJ (source: Key Informant interviews and desk research by authors)

| Project | Data action | Description | The problem/gap filled by data action | Functions of the tool/project | Utility of the tool/project |
|---|-----------------------------------|---|--|--|--|
| Dashboard Prototype to Assess Post-Disaster Displacement | Data Analysis, Data Visualization | PLJ worked with the International Organization for Migration (IOM) to procure a telco's call data records to track post-disaster population movement, with which they created a dashboard | Existing Displacement Tracking Matrix used by IOM was too slow; mobile positioning data was deemed to be faster and more detailed in the information it can provide about mobility | The dashboard displays the movement of subscribers, indicates the most frequently travelled to destinations post-disaster, and gives an estimated number of displaced individuals based on their movements pre- and post-disaster. | Disaster victims who relocate post-disaster are oftentimes overlooked in aid efforts. Therefore, understanding where victims are would enable the Indonesian government to better coordinate aid. |
| Using Big Data Analytics for Improved Public Transport | Data Analysis, Data Reporting | PLJ Partnered with Jakarta Smart City to improve Jakarta's bus service planning and delivery | Traffic jams in Jakarta make it difficult to schedule public transport and prolong commutes | The project identified bottleneck locations and mapped origin-destination trends. | The project helped improve TransJakarta's operations, identify where new bus routes were needed, and improve its bus dispatching system's efficiency. |
| Feasibility Study: Identifying Trends in Discrimination Against Women in the Workplace in Social Media | Data Analysis, Data reporting | PLJ analysed tweets to access their effectiveness as sources of real-time signals of workplace discrimination against women | Regressive values governing the role of women in Indonesian society constrain their ability to participate freely in the labour market and without prejudice. | PLJ decided on a set of topics (e.g., sexual harassment in the workplace, discrimination in job requirements, the burdens of working women), and developed a keyword taxonomy for each. Tweets were analysed to ascertain which topics were most commonly discussed, which topics were | The study provided some insight into the public discourse around certain topics vis-à-vis women in the workforce, and underscored the utility of online public conversations as a source for further research. |
| Dashboard Prototype to Assess Post-Disaster Displacement | Data Analysis, Data Visualization | PLJ created a dashboard that visualizes data on smallholder farmers | Smallholder farmers make up much of Indonesia's agriculture sector (a sector that contributes significantly to Indonesia GDP), and not all of them are recognized in official statistics | The dashboard displays national, provincial, and sub-district level agriculture census data, as well as visualizations indicating land use of different agriculture categories (necessary to understand which farmers operate SMEs) | Takeaways from the dashboard would allow the Indonesia government to provide better support for smallholder farmers (building infrastructure, providing training programs, providing subsidies etc.) |
| Dashboard to Monitor SDG Progress | Data Analysis, Data Visualization | PLJ created an interactive monitoring dashboard on Indonesia's SDG progress | | Users can access information on each of the 17 SDGs across 241 indicators. Each indicator displays progress for each of Indonesia's 34 provinces. | The tool allows Bappenas to keep track of Indonesia's progress towards the SDGs, both overall and by province |
| Haze Gazer Crisis Analysis Tool | Data Analysis, Data Visualization | A crisis analysis and visualization tool developed by PLJ to enhance the government's disaster management efforts | Forest fires affect Indonesia on an annual basis, and the government was in need of more timely and on-the-ground data. | This tool displays real-time information on where fires are occurring, the strength of haze, where more vulnerable members of the population are located, and strategies that those affected use (e.g., movement patterns) which topics were | The tool helps both local and national Indonesia disaster management authorities to better target their assistance and ensure that assistance caters to affected populations. |

past.

2.3.2 Significance of Data actions by Pulse Lab Jakarta

It is reasonable to assume that the opportunities/demand for such data-related actions - data analysis and reporting (Table 1) - will only increase in the future. Dashboards/data visualizations provide Bappenas with a readily available and easily digestible source of information which, in critical services like disaster management, can be the difference between life and death. For example, the Post-Disaster Displacement Dashboard is a successor to IOM Displacement Tracking Matrix which apparently didn't quite meet the requirement for speedy collection, processing and analysis of data; PLJ's dashboard fills that gap (Pulse Lab Jakarta, 2019). Even in those relatively lower-stake areas like agriculture management, PLJ produced a dashboard for Bappenas that identifies smallholder farmers, the size of their land and what they produce using agriculture census data (Pulse Lab Jakarta, 2019). These dashboards provide efficient, reliable sources of information to the government that can be used to improve its services and better formulate policy.

PLJ's non-dashboard related projects involving data analysis and data reporting to have clear socioeconomic utility. A good example being a big data analytics project to improve public transport in Jakarta, in which PLJ used data from Jakarta's bus rapid transit system to provide the city administration with insights on bottlenecks, commuter movements, and where new routes may be planned, and the bus dispatching system improved (UN Global Pulse, 2017). Additionally, our KI's indicated that projects involving these data actions come at little to no cost to PLJ's project partners like Digicel, Twitter, Facebook, and TransJakarta (partners involved in some of the projects mentioned thus far); in fact, a Key Informant of PLJ indicated that even their larger, multinational project partners like Facebook have much to gain from partnering with PLJ, not just on the CSR side of things, but because PLJ might bring a different perspective and skill set which might reveal to those partners greater potential of their data and how they might monetize it. Therefore, PLJ is likely to see continued demand from

Bappenas and support from the private and public sector partners for these data actions.

2.4 Guiding principles of Data actions

According to the Key Informants, PLJ Data actions are influenced by the Indonesian **government's priority for SDGs** and Data ethics, which are described as guiding principles of PLJ data actions in this section.

The Ministry of National Development Planning in Indonesia established a Secretariat to support the implementation and monitoring of all SDGs. Subsequently the Ministry developed a system to enhance data governance itself within the public sector. The initiative explored many opportunities and challenges of open data such as available administrative data, data from the private sector, data accessibility, reliability and need for new data sources. PLJ particularly supports the Government of Indonesia for better utilization of the existing data and monitoring SDG achievements by developing a SDG monitoring dashboard. The dashboard displays information related to the 17 SDG throughout 34 provinces in the country, based on 241 indicators. The data used in the dashboard come from the open data initiative (Satu Data Portal) by the Ministry (Bappenas) and the dashboard is currently in use by the SDG secretariat.

The dashboard aims to simplify monitoring and evaluation of SDGs through a transparent process. SDGs Secretariats at the Ministry of National Development and Planning use the dashboard for their strategy plannings and to address challenges associated with working towards SDGs.

Data ethics set important guidance for PLJ data actions particularly in the use of big data in a humanitarian context. PLJ concerned data privacy and data protection as highly important elements of data ethics. UN Global Pulse Privacy Advisory Group encourages their Labs to conduct Big Data Privacy Impact Assessment (PIA) prior to data actions (UN Global Pulse, 2015). PIA assesses the risks, utility and the aims of the data actions especially related to big data in the humanitarian context (Pulse Lab Jakarta, 2015). PLJ follows personal data

protection and privacy principles adopted by the UN High-Level Committee on Management in 2018. These principles set out a basic framework for the processing of personal data by the United Nations System Organizations. The principles are aimed to harmonise standards for the protection of personal data across the UN system, facilitate the accountable processing of personal data and ensure right to privacy.

According to the principles, the data (including non-personal data) should be processed in a non-discriminatory, gender sensitive manner. Further, UN Organisations should exercise caution when processing any data pertaining to vulnerable or marginalized individuals and groups of individuals, including children.

PLJ strategic framework and governing principles explain the commitment by PLJ to promote data protection and privacy principles (Pulse Lab Jakarta, 2020). With citizens being at the center of the work by PLJ, the organisation ensures responsible use of data. Social Systems Lead at PLJ revealed how the organisation follows principles related to data ethics. According to a KI, personally identifiable information is not publicly shared in their data actions with the private sector and the guiding principles are set by Global Pulse.

"Global Pulse has some data protocols on how to safeguard privacy, especially when working with the private sector data which can have personally identifiable information. We [PLJ] do have a protocol that we make sure that personally identifiable information is masked before sharing." – Maesy Angelina (Social Systems Lead at PLJ)

Much of PLJ data actions center on humanitarian and development, with main thematic areas including disaster response and climate change, urban dynamics, food security and agriculture, and financial inclusion. Through these data actions PLJ provides three main services: 1) It drives exploratory research on new insights that can be gleaned from unconventional data sources, 2) Helps UN agencies, governments and development partners make better use of their

data, and 3) Advocates for the ethical use of data and technological platforms in line with the protection of individual privacy.

3. Enabling environment

This section describes factors that enable PLJ and other partner organizations to engage in the above-mentioned data actions. We explore these under two categories: local environment and institutional environment. Through our KIIs and desk research we identify two particular incentives to undertake partnerships: nature of the organization itself and shared motivation. These incentives are described from PLJ perspective as well as from other partnering organizations' perspective.

3.1 Local enabling environment

This section discusses Indonesia's enabling environment – i.e., the factors that facilitate and hinder data partnerships in Indonesia. The following discussion of enabling environment concerns not only the data actions discussed in section 3, but also data partnerships that typically ought to be established in order for PLJ to carry out data actions. Our desk research and KIIs indicate that organizations like PLJ face certain barriers to these data actions/data partnerships. One KI revealed that there are “more failure stories in securing data partnerships than successful ones”.

3.1.1 Indonesia's legal environment

It is important to note that on the 17th of October 2022, Indonesia's draft law on personal data protection was passed into Law No. 27 of 2022 on Personal Data Protection (the “Privacy Law”) (SHIFT Counsellors at Law, 2022) (Widianto, 2022). The DPL requires any entity handling Indonesian residents' personal data to ensure their systems can protect that data, and stipulates individuals found guilty of falsifying personal data can be jailed for up to six years; those convicted of gathering personal data illegally, five years (ibid). Victims of data breaches may seek compensation and may withdraw consent to have their data used. Additionally, the Law would better enable Indonesia and those countries with

similar legislation to transfer data. The Law also stipulates that data subjects have certain rights, for example: “the right to be informed; the right to complete, update and/or correct personal data; the right to access and obtain a copy of personal data; the right to end the processing of, erase and/or destroy personal data; the right to object; the right to not have one's data processed automatically; the right to delay or limit personal data processing; the right to file a complaint and to receive compensation; and the right to data portability” (SHIFT Counsellors at Law, 2022). However, all our KI's for this study were conducted before the law was ratified. Therefore, while this brief description of what this Law entails is helpful (because a DPL would have clear implications on an enabling environment), we situate our analysis and discussion in the enabling environment (if any) pre-DPL.

What was the pre-DPL environment like, and what were the implications for PLJ and its ability to engage in the aforementioned data actions and data partnerships? Prior to the DPL, there existed no law that comprehensively regulated data protection in Indonesia (Yuriutomo, 2022). This could be interpreted as an environment that was not particularly supportive of the data actions/partnerships for a number of reasons: stakeholders – especially multinational private sector firms – might be wary of engaging with Indonesian entities working with local data without the adequate ability to say such engagement is legal; members of the public may not be comfortable with sharing their data with organizations/on platforms (data that organizations like PLJ would need to mine for projects) without checks and balances on their privacy and other data rights; and organizations like PLJ may have concerns (particularly on projects concerning more sensitive topics) that local entities both private and public they engage with on projects might mishandle data. One KI corroborated these hypotheses when they discussed not only the inadequacy of privacy laws in Indonesia, but also revealed that the biggest breaches have often happened from within the government, thus impeding the government from creating a conducive enabling environment for data partnerships to take place. The KI also revealed that PLJ plays a strong role in advocacy of data privacy/security protocols as a means of rectifying this, which they attempt to achieve with a “learning by doing” approach, i.e., by involving government entities with projects

(Yuriutomo, 2022). For example, the KI had on one occasion worked with the Ministry of Health during a particular project to help them understand how to improve their data security protocols and what ethical principles to operate by, and noted that certain recommendations had since been adopted. It is therefore worth noting that PLJ does take steps to mitigate challenges in the environment within which it operates.

Looking forward – post-DPL ratification – while it may be too early to comment concretely on how the enabling environment has been shaped, it could be posited that the DPL has the potential to both strengthen and restrict the kind of data actions we've discussed in this document. The safeguards afforded to data subjects discussed above might make citizens more willing to share their data due to a lower likelihood of that data being mismanaged, and the existence of some recourse in the event that their data is mismanaged. The Law may also lead to increased willingness to engaged in data partnerships from organizations outside Indonesia; the fact that the Law is bears many similarities to the EU's General Data Protection Regulation (Chow et al., 2022) (thus, adheres to some sort of international standard) may inspire greater confidence in foreign organizations. At the same time, however, organizations might be less willing to engage in data-sharing agreements (for example, a Telco sharing data with an organization like PLJ), because any kind of transaction invariably entails some level of risk. Additionally, detailed requirements under the Law regarding acquisition of a data subject's consent (Dorwart et al., 2022) might disincentivize organizations to collect data unless absolutely necessary.

3.1.2 Ease of engagement with the private sector

Another key determinant of a good enabling environment is the ease of engagement with the private sector entities in data partnerships. One KI of PLJ reported a particularly challenging experience obtaining data from an Indonesian telco, Telkomsel, for a joint project with the IOM that sought to use call data records (CDRs) to identify population movements post-disaster. PLJ and the IOM approached Telkomsel to obtain CDR six months after Indonesia's Sulawesi earthquake. Four takeaways from our discussions with PLJ and IOM Key

Informants are as follows (bearing in mind that this is just one case with which we cannot make a definitive statement about Indonesia's enabling environment vis a vis private sector willingness to participate):

First, the private sector data can be costly. Despite the time pressure and PLJ and IOM's insistence that the data was to be used for humanitarian purposes, Telkomsel refused to provide the data for free, charging what one Key Informant believed were above-average prices (possibly due to the assumption that UN-affiliated organisations would be able to bear the cost).

Second, some large private sector firms that have bureaucratic structures and lack protocols to deal with data sharing could impede access to data. Our KI's indicated that bureaucracy within Telkomsel made the procurement process a lengthy one. PLJ and IOM initially spoke to Telkomsel's CSR team, after which they were referred to Telkomsel's business unit, with the actual transaction eventually being managed by a subsidiary of Telkomsel. Telkomsel also had no protocols to manage these kinds of data partnerships.

Third, the private sector monopolies make things difficult because, especially in the context of telecommunications and this particular project (as indicated by a Key Informant), the greater the market share, 1) the greater the volume of data (and therefore value of the telco to the project); 2) the greater the reliability of the data. Entities like PLJ and the IOM therefore have less bargaining power. It's not something for which they can run competitive procurement processes and thereby obtain lower prices.

Fourth, an entity may improve the enabling environment in which it operates by building a strong network. KI at PLJ stressed the importance of cultivating relationships with multiple stakeholders to circumvent the kind of challenges mentioned above. For example, they speculated that Bappenas and other Ministries would have access to high-level management within telcos, and told us that the Statistics Bureau indicated much later they would have been able to provide the same data for free had they been contacted; the KI expressed the need to involve various organizations within government as much as possible in these processes.

3.2 Institutional environment

The unique nature of PLJ is that it functions within the United Nations organisation structure, which appears to provide assurance and comfort for the private sector to collaborate in data actions. Such assurance and comfort are specially required when the legislations and regulations are not strongly formulated in the operating countries. According to the Head of PLJ, UN status of the organisation is an advantage for data sharing. He stated that platforms such as PLJ are needed to promote the private sector to collaborate in data actions.

"In some instances, I found that the private sector is comfortable in talking to us, but nervous about directly engaging with the government. Of course, it depends on the authority you are dealing with. So, I feel sometimes we [PLJ] are seen as a useful filter." - Petrarca Karetji (Head of PLJ)

While the UN status has been an asset in leveraging cooperation from partners, there are however times it impedes PLJ's ability to form data partnerships. Key here is the bureaucratic nature of the UN system that governs PLJ's formal engagements with other entities. Some Key Informants explained that potential partners may be put off by the protocols and mechanisms required by the UN at the agreement stage. For example, while the UN has a specific contractual template to be signed, potential partners might insist that their template be used instead. When there are needs for commercial contracts, the administrative processes are cumbersome and not well-suited for a service oriented approach.

3.3 Incentives to undertake partnerships

There are two main incentives to undertake partnerships: ***the nature of the organisation and shared motivation***. The nature of the organisation becomes an incentive for partnerships due to the UN status of PLJ, its evolution from innovation lab to analytical accelerator and the ability to work across countries. The other main incentive is shared motivation, and it is described from PLJ's and their partners' perspective.

3.3.1 Nature of the organisation

The Key Informants at PLJ revealed several incentives to undertake partnerships in data actions. Some of these incentives are due to the nature of the organisation. PLJ is governed by United Nations compliances; hence it provides assurance and comfort for the private sector for data sharing. Such assurance is significant, where there are weak laws and regulations to govern data sharing in certain countries, the Head of PLJ stated:

"The unique nature of PLJ is that we have [the] UN flag; I think it provides some assurance and comfort for the private sector to share data. When they see the potential of their data they want to contribute. I think particularly in countries where there are legislations and regulations that are not strongly formulated, the nervousness [of the private sector] increases. So, there is a need for a platform such as PLJ." – Petrarca Karetji (Head of PLJ)

This unique proposition is described by the Partnerships and Advocacy Lead at PLJ as a neutral position, which connects the public and private sector.

"We [PLJ] have perks of being a UN agency, in a way that we are seen as a neutral party. Sometimes the government cannot do certain things with the private sector and the private sector is not willing to do directly with the government. So we can be a bridge." – Femmy Soemantri (Partnership and Advocacy Lead at PLJ)

PLJ's evolution from being an innovation lab into an analytics accelerator incentivised data actions. In the innovation lab, the organisation focuses on experimentation and building prototypes, whereas in the analytics accelerator stage the emphasis is on the ecosystem. Ecosystem facilitation requires partnerships with stakeholders in the system to achieve a common goal. The Partnership and Advocacy Lead at PLJ explained the value of the facilitating role in the ecosystem and the transition of the organisation as below.

"We [PLJ] are also changing from an innovation lab with all the experimentation, with all prototypes that we deliver and so on and so forth.

We have transitioned into more of an analytics accelerator. So that we are now developing ecosystem support and facilitating the ecosystem." - Femmy Soemantri (Partnership and Advocacy Lead at PLJ)

The Head of PLJ describes the value of the changing approaches in partnership building. His emphasis is on institutional constraints within the government and the need for changing approaches accordingly.

"We [PLJ] have tried to dig more deeper into the meaning of partnerships and developing those. We need to understand institutional constraints within a government and need to adopt new approaches." - Petrarca Karetji (Head of PLJ)

PLJ is a regional organisation with the capacity to work across countries and its data partners are often global or located in other countries. (e.g.: Twitter, Google, Meta and Grab). It partnered with Twitter and that partnership in turn provided PLJ with access to Twitter data (Tatevossian, 2016). Food price estimates in Indonesia and workplace discrimination are some of data actions initiated by PLJ using Twitter data. PLJ aimed to support efforts to achieve SDG through these data actions.

3.3.2 Shared motivation

Shared motivation is another incentive to undertake partnerships in data actions. GIZ Data Lab approached PLJ to explore a research opportunity in Bangkok, Thailand. GIZ Data Lab focuses on bringing together practitioners for effective use of digital data for sustainable development. PLJ partnered with Grab, which is one of the most popular ride-hailing services in Bangkok for this data action. The shared goal of this initiative was to develop sustainable transportation systems. In addition, the data is used to measure population exposure to air pollution, a regional/global problem that needs shared motivation to counter (Pulse Lab Jakarta, 2020). The shared motivation is reflected in the partners brought together in this initiative: GIZ Data Lab, PLJ and Grab.

Other data actions which succeeded due to shared motivation of partners are

railway passenger data analysis and population movement analysis after the Sulawesi earthquake. The Indonesian Ministry of Transportation and National Railway Company (PT KAI) partnered with PLJ to understand diverse needs of millions of passengers and the insights were used to develop sustainable transportation. The IOM Indonesia and PLJ partnership analysed pseudonymised mobile network data (provided by Digicel) to understand post disaster population movement (Pulse Lab Jakarta, 2019). PLJ contributed with their analytical capabilities and IOM utilized the insights to assess the needs of displaced people.

The Humanitarian Data Advisor at PLJ explained how the partnership building conversation initiated with Digicel. The initial conversation had emphasized two elements: the significance of humanitarian actions and the uniqueness of mobile network data subscribers, which made the whole partnership succeed.

"(...) from the private sector we [PLJ] wanted data to support humanitarian actions. The conversation with the private sector started like... 'your data is important for the humanitarian sector; your data will provide far better insights compared to what we have now.'" - Faizal Thamrin (Humanitarian Data Advisor at PLJ)

Shared motivation for the private sector to undertake partnerships in data actions were two-fold, according to the KIs. Firstly, the corporate sector can enhance its brand equity by partnering with UN agencies such as PLJ. UN agencies work to achieve sustainable development goals and some agencies engage in humanitarian actions. Corporate sector provides data for some of these initiatives not as an action of data philanthropy but to enhance brand equity. Secondly, the private sector engages in data actions to develop analytical capacity in their teams. The data scientists or researchers in the corporate sector have specific mandates and requests for data analytics. Such tasks are not aimed at policy making which requires evidence through multiple data sources and analytical perspectives. But the methods developed in public sector data labs such as PLJ are usable (or reusable) in the private sector settings, to achieve commercial objectives. At times, the value of the private sector data can be realized by the private sector only through such analytical partnerships.

The Social Systems Lead at PLJ explained the gap between policy oriented and corporate sector data analytics as below.

"..the data scientists or researchers in the private sector have very specific mandates and requests for analytics; whereas the questions we [PLJ] came up with are important for policy-making and are not something you see within the realms of work of in-house researchers they [private sector] have. So, they really benefit from the analysis work we do with them. It is not a philanthropy"

- Maesy Angelina (Social Systems Lead at PLJ)

4. Data action challenges

This section reveals challenges in data actions under three categories: Organisational culture, Noncompliance to data ethics and Limits of public data. This categorisation of challenges is based on the project descriptions provided by the Key Informants.

4.1 Organisational culture

The KIs described situations in which the aims of different parties involved in data actions are incompatible. Such conflict of interests, lack of shared motivation or established precedents may hinder partnership building opportunities.

"...sometimes there are commercial interests involved [in data partnerships] and sometimes there are precedents set by others [on how to enter partnerships], where there have been paying or purchasing data. If you are willing to pay, then are you willing to pay for institutional [data providers' estimated value]?"

- Petrarca Karetji (Head of PLJ)

The success of the partnership depends also on the nature of the partnering organisation. Some partnering relationships function through personal networks, in contrast large organisations have partnership divisions to facilitate collaborations. Others are large and have formal procedures that have to be dealt with, requiring a longer ramp-up time, as explained by Humanitarian Data Advisor at PLJ.

"...sometimes the partnership depends on the organisation itself, I mean some big organisations probably have the capacities or even partnership divisions to engage with different kinds of organisations... When you are dealing with big companies there is always a process that you need to deal with." – Faizal Thamrin (Humanitarian Data Advisor at PLJ)

This situation can lead to a complicated administrative process, and might minimize partnership opportunities. Even something as straightforward as the language in partnership documents can be an important element of the partnership process. Our interviews revealed instances that some data action initiatives were not successful due to such administrative barriers.

"..People sometimes want to push their templates to be signed, so there are lots of reasons why partnerships fell through...actually more failure stories in securing data partnerships than successful ones." – Maesy Angelina (Social Systems Lead at PLJ)

"..we wanted to get access to data from some other organisation and the Agreement came in English. Then that organisation said no... no... we want Indonesian. Sometimes it is challenging. It is always like that." – Faizal Thamrin (Humanitarian Data Advisor at PLJ)

4.2 Noncompliance to data ethics

The most important compliance required on data is in relation to personal data protection, and comes under the umbrella of data ethics and data security. Our interviews revealed the existence of organisations functioning in the digital space without adhering to principles of ethical access and use of data. Noncompliance to data ethics by an actor or actors in the ecosystem is a barrier for data collaboration since it increases data risks for everyone. The data collaborators assess the risk involved in data sharing and the benefits of data actions when entering partnerships. The risk can be minimized by adhering to internationally and locally accepted principles, guidelines, norms, and laws.

When it comes to handling data, PLJ adheres to relevant compliance guidelines established by the UN High-Level Committee on Management in 2018. These compliances are to set standards for the protection of personal data and to ensure right to privacy. Being compliant increases the opportunities for data partnerships for PLJ. The data volume that PLJ has dealt with has grown rapidly in the recent past, according to the Key Informants. PLJ uses both publicly available data and purchased data for their initiatives. These data are organized, stored, and managed properly to prevent data breach and violation of privacy. PLJ processes personal and non-personal data (in a non-discriminatory, gender sensitive manner in their data actions. In addition, PLJ pays attention to inclusivity of digital transformation and possible biases that exist or arise from the data, algorithms, or analysis. These ethics practices reinforced PLJ's collaborations with other parties.

4.3 Limits of public data

PLJ uses publicly available data (e.g.: Twitter data) for some of their data actions. But those sources have data gaps or insufficient data to draw comprehensive conclusions. For instance, use of real time social media data to map infrastructure damages due to natural disasters has data gaps because the victims of the natural disasters report about infrastructure damages through social media platforms only if they can access to such platforms. People in the severely affected areas were not able to report the incidents, causing data gaps, according to the KIs we spoke to.

Multiple organisations enter into partnerships to use public data, but according to Key Informants there are limitations in such data sets. Data providers can change data structure or data formats constraining analytical capabilities. The API can be closed or changed during the project period, which prevents or limits further analysis.

There are of course ways to mitigate some of these challenges of data. Where feasible using alternate data collection methods or using other data as proxies to fill the gap in certain data streams are just two such methods. But the purpose

of mentioning this as challenges to point out that PLJ recognizes them as such.

5. Cross-cutting themes of data actions

This section examines how PLJ data initiatives contribute to achieve social inclusion through gender equality, attention to Persons with Disability (PWD) and vulnerable communities.

PLJ gives greater attention to cross cutting themes such as gender equality and inclusion of persons with disability in their data actions and has a designated person with gender expertise to ensure social inclusion in all aspects of their projects. Data actions are proposed, designed and implemented with greater attention to social inclusion. PLJ ensures gender balanced participation in dissemination events and program design. It also takes care of disaggregation of data to highlight needs of women and persons with disability. It assists the data users to understand special needs of vulnerable communities. The Partnership and Advocacy Lead at PLJ revealed their attention to social inclusivity as below.

"At the moment we [PLJ] place a high importance on gender equality, gender inclusion and also the other one is on people with disabilities. So those two inclusive elements that we are currently working on are very much highlighted."
– Femmy Soemantri (Partnership and Advocacy Lead at PLJ)

PLJ's commitment for gender equity is part of their broader commitment to Sustainable Development Goals (SDGs). PLJ conducts research specially to improve women's access to services such as finance and public transport. The findings on female small business owners were featured in the 2016 report on Indonesia's business registration (Pulse Lab Jakarta, 2022). In 2020, PLJ conducted a case study about how women-owned micro and small enterprises leverage digital platforms to cope with the impact of COVID 19 pandemic (UN Women, 2020). The study used multiple data sources to prove behavioral barriers to use of digital tools by women entrepreneurs. The data sources included surveys conducted by BPS-Statistics Indonesia, online survey, and insights from big

data analysis in partnership with Gojek Indonesia (a digital platform and digital service provider and payment technology company), and qualitative research conducted by PLJ. This study underscored the need to integrate a gender perspective into the National Economic Recovery Programme (PEN) in response to the pandemic.

Understanding the diverse needs of public transport passengers is crucial to operate an inclusive transport system. In 2019 PLJ collaborated with Indonesia's state-owner railway corporation (PT KAI) and Bappenas to analyze passenger datasets (Julliard et al., 2021). The collaboration aimed to use big data to understand the needs of PT KAI customer base, especially vulnerable communities including persons with disabilities, elders, and women. PLJ disaggregated data based on gender, age, and disabilities. The analysis identified over two million women traveling by rail, alone and after dark which emphasized the need for safe mobility. In addition, elders and persons with disability were found to have underutilized the travel subsidy which is a part of the social protection scheme. Subsequently, Bappenas engaged with PT KAI to channel subsidies for those who were not included in such social protection schemes. The Head of PLJ revealed how the passenger data analysis was used by National Railway to improve their service.

"The work with National Railway really explained the potential of data. According to their Commissioner the work was presented to the Board of Directors, and they really got excited, as their own data helped to optimize the service." – Petrarca Karetji (Head of PLJ)

An important aspect of PLJ's work is use of data and ensuring gender visibility based on the principles of transparency and accountability.⁴ Gender discrimination at the workplace is one of the thematic areas that PLJ worked in the recent past. Monitoring workplace discrimination is challenging since employees and employers seldom report incidents. Researchers use surveys to monitor public perceptions on gender discrimination, but the surveys are costly

and time-consuming.

PLJ collaborated with the International Labour Organisation (ILO) Country Office for Indonesia to conduct a feasibility study to explore online data as a source of real-time signals of discrimination against women in the workplace. Over 100,000 tweets in three years used to understand discrimination under four topics: discrimination in job requirements, permission for women to work, perceptions on the appropriateness of different types of work for women and the multiple burdens of working women. However, the insights were not strong enough for ILO to prioritize focus areas in Indonesia, leading to assumption that weak signals are coming from directly affected populations.⁵

⁴ PLJ annual report 2019

⁵ <https://www.unglobalpulse.org/document/identifying-trends-in-discrimination-against-women-in-the-workplace-in-social-media/>

6. Discussion

6.1 The value of data partnerships

This case study is a testimony to the value of data partnerships: in terms of both benefit to the parties involved and the utility of the product(s) of those partnerships. From PLJ's side, much of their work is enabled by the private sector data (for example, Twitter and telco data). As discussed previously, the private sector has much to gain by partnering with organizations like PLJ. First, partnering with organizations like the UN on humanitarian projects is good from a branding standpoint. Second, that public analytic institutions like PLJ conduct analytics and research for policy making (which differs from research conducted by data scientists and researchers in the private sector organizations) allows those private sector organizations when working with PLJ to see their data through a different lens and understand the value of their data and how they may be able to further monetize it. Additionally, these partnerships allow the government to leverage the expertise and resources of the first two entities to tackle pressing issues and formulate better policies. As long as laws regarding data protection, privacy etc. are adhered to, data partnerships have the potential to be a win-win for everyone.

6.2 PLJ and partnerships

PLJ explores data eco-system and leverages their capabilities to build effective data partnerships as an analytic partnership accelerator.

PLJ's UN status helps them to work with the Government of Indonesia (GOI) as well as with the private sector. Their ability to connect GOI and the private sector was identified as an important factor in initiating partnerships. PLJ is perceived as an impartial and credible organisation by the external parties, who are involved in data actions.

Some of those parties had shared sensitive and commercial data (e.g.: CDR) indicating the trustworthiness extended by PLJ. The trustworthiness of

PLJ derives from its UN status and greater attention to data ethics. A KI of a partnering organization (IOM) mentioned that one reason for partnering with PLJ is their attention to data ethics, which minimizes risks. In other words, risk mitigation is a deciding factor for data partnerships. Another factor is skills and 'know how' capabilities of the persons within the partnering organisation. PLJ holds distinguished capabilities in data analytics and visualization, which were capitalized by them in partnerships. Their capabilities are further strengthened by the ability to explain social bias in the technology and the promotion of social inclusion through data actions.

Most of PLJ data actions are partnerships and the organisation has a designated person to build partnerships: Partnership and Advocacy Lead. Her main task is managing stakeholder relations, which includes building partnerships with internal and external entities. Internal parties are the research design unit, data analytic unit and communication unit within the organisation. External parties comprise of public sector and the private sector agencies. The Partnership and Advocacy Lead builds networks among and with these units and agencies. She ensures sustainability of PLJ initiatives by upscaling prototypes/feasibility studies to larger studies. Her other responsibilities are developing new programmes and initiating partnerships with potential research collaborators. The Advocacy component of her job role involves working with governments on policies. Advocacy on policies related to data ethics is one of the significant interventions to promote data collaborations by the officer. PLJ demonstrates its commitment for partnership building and data actions by appointing a designated officer on those.

PLJ repositioned itself in the 'identity space' with a mandate to amplify their partnerships in the ecosystem. The repositioning exercise involved PLJ partners and a mapping of the ecosystem of the organisation. The collective exercise identified themselves as actors in the system and opportunities to drive policy changes in the area of PLJ expertise. The repositioning allows them to undertake partnerships in numerous data actions and policy interventions.

PLJ's mixed method approach (use of quantitative and qualitative data) to study

social phenomena has been attractive to its partners involved in data actions. The method uses a human-centered design approach which was identified by interviewees as important in humanitarian context. Social inclusion further emphasized by PLJ in their study on public transport passengers. These two studies have partners from both public and private sectors. Shared motivation of all parties is the initiator of these data actions. PLJ plays a mediator role in these partnerships and the organisation has contributed with its data analytic capabilities in these actions. Their data actions are practical, and problem driven in nature, which focuses on actionable insights for their partners. PLJ's brokerage role sets a common goal for all the parties to create social inclusion for vulnerable communities including women, small holder farmers, SMEs, and internally displaced persons due to natural disasters. Such interconnection among different parties may not prevail without the mediation role played by PLJ.

7. Conclusion

The impact of data actions by PLJ has increased significantly over the course of their operations. The UN status of the organization can be a stimulating factor or hindering factor to build efficient data partnerships. UN status ensures that PLJ follows data ethics, which is highly desired by the data collaborators. On the other hand, inherited administrative procedures delay data collaboration initiatives.

Two elements have facilitated positively for PLJ to improve their contribution in the ecosystem. The operational environment in the region has changed to admit evidence-informed policy making emphasizing the value of data analytics. Secondly, PLJ's repositioning in the identity space allows them to make connections among different actors in the ecosystem. PLJ's improved impact of data actions is a combination of these two elements. Shared motivation to achieve social inclusion and evidence-based decision making are promoted by PLJ in their capacity of brokerage role. The brokerage role of the organisation has been institutionalized by appointing a person for partnerships and advocacy.

However, three significant challenges remain in the PLJ operating context. Organisation culture, risks associated with data sharing and technology are the main challenges encountered by PLJ in data actions. Organisation culture can hinder or trigger data sharing actions. Such culture is common to all the parties involved in data partnerships. PLJ uses both formal and informal relations with external parties to overcome challenges in organisation culture. Risks in data actions also include issues around data ethics, which includes compliances of handling personally identifiable information. These risks are mitigated by PLJ through good practices of data sharing such as data anonymizing and signing non-disclosure agreements with partners. PLJ is keen on long term partnerships with data providers to ensure consistency of data formats and platforms of data providers.

PLJ implementation model is problem-driven, and all data actions address cross cutting themes such as social inclusion. Problem driven model is well suited for their performances in identity space and organisation objectives as it focuses on actionable insights for PLJ partners. PLJ is able to work across several ministries in GOI and the private sector entities for data actions. That said, the greater challenge for PLJ is connecting silos in the ecosystem through sustainable data collaborations.

8. Recommendations

8.1 Need a systematic approach for the private sector data collaboration

This includes factors that contribute to sustainable data partnerships with the private sector. Sustainable data partnerships are required to move data actions beyond the feasibility study stage. The systematic approach should consider all steps in data actions; starting from 'negotiations' with the private sector. The cost of building and maintaining data sets are the main factors considered at this stage. The price of data has been controversial in the negotiation process that this case study examined. The systematic approach can include other elements such as data architecture, consistent access to Application Programming

Interface (API) and ability to scale up.

8.2 Greater attention to data ethics

Despite the good will of all parties involved in data actions, there are risks associated with data actions. All parties need to mitigate risks involved in data collection, storing, processing and dissemination. This can be done through agreements between data collaborators, but data partners need technical expertise to implement clauses in the agreements.

Risk mitigation is a prime concern for all parties, and they work together to mitigate associated risks and achieve common goals. High risks discourage data partnerships, but data ethics stimulate data collaborations.

8.3 Promote open source

Impact oriented data actions build prototypes, dashboards, and data visualization tools. These outputs transfer insights to a wider audience including users of such analysis in decision making. Proprietary platforms limit the accessibility of data insights, therefore open-source platforms are encouraged in data actions.

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Annex: 1 : List of interviewees

All interviews conducted remotely from July to September 2022.

| | Name | Institute | Designation |
|---|----------------|-----------|--------------------------------|
| 1 | Faizal Thamrin | PLJ | Humanitarian Data Advisor |
| 2 | Faizal Thamrin | PLJ | Partnership and Advocacy Lead |
| 3 | Faizal Thamrin | PLJ | Social Systems Lead |
| 4 | Faizal Thamrin | PLJ | Head |
| 5 | Faizal Thamrin | IOM | Information Management Officer |

Annex 2: Discussion guide

The role of the private sector in the data revolution for sustainable development:
A Global South Analysis

Introduction:

Int'l Development Research Center (IDRC), Canada is conducting a Global South study on the private sector contribution towards sustainable development goals (SDGs) through different data actions: Research, Data sharing, Data reporting, Impact assessment and measurement (e.g. support on SDG progress tracking, statistical support, etc.), Capacity building and skill sharing, Funding, Technical service provision and Data governance.

The study will produce 2 case studies to present the impacts of data actions mentioned above. The impact of data actions will be examined to understand 1) What improved and to what extent 2) What didn't work, 3) Contextual factors that contributed to success or failures 4) Challenges faced and how they were overcome.

Objective of the case study:

To explore the context around which the organizations is able to work with data, work in partnership, the barriers and how to scale up partnerships.

[Note: This discussion guide serves as checklists for the interviewer so that s/he does not miss out on any important area of discussion. They are indicative and highlight areas of inquiry and the associated methods of questioning. All the questions should be asked in an informal manner, maintaining the flow of the conversation while interviewing. Look for examples in all the

Discussion guide <PLJ offices>

Participant Consent

Introduction: Hello! I am _____ from LIRNEasia. LIRNEasia, together with CEPEI (a Colombia based think tank working in South America), received a grant from the International Development Research Center (IDRC) to understand the role of the private sector in the data revolution for sustainable development in the global south. Thank you for taking the time. The aim is to explore the context around which your organization is able to work with data, work in partnership, the barriers and how to scale up partnerships.

In the final report the organisation name <PLJ> will be mentioned, and we will either mention your overall comments or at times we may want to quote you by name,

but in keeping with international practice if you do not wish to be named or identified, we will use insights of this interview in our report without naming you.

Our interview should take about an hour. To begin with, let me take you through the informed consent process.

Consent: Your consent to participate in the above study is sought. A consent form has been provided which you can verbally agree to acknowledge that you are aware of what the project is about and your role within it. Please ask us any questions you may have any time before, during, or after the interview. Do not hesitate to stop us during the interview if you have any doubts or questions.

Please seek the permission of the participants before recording.

Freedom to withdraw from the interview: You have the right to refuse consent or withdraw the same during any part of the interview without giving any reason, and without any prejudice on our part. You are also free to withdraw this consent at any point before, during, or after the interview, which will mean that any responses given by you will not be used during the analysis phase. You are also free to refuse to answer any questions during the interview.

Section 1: About the organisation/institute

- 1.1 Let us start with knowing a little more about you. Could you tell us a little bit about yourself?
- 1.2 Could you tell us about your organisation?
Probe: Organization objectives, role in the country/region, Being a part of the UN and closely working with public sector.
- 1.3 How do you describe the operating context of the organisation?
Probe: Changes in country/region economy, Country's overall development strategy, technological development

- 1.4 How do you describe the relevance of your organisation in this operating context?

Probe: Open government movement, Use of evidence to inform policy

- 1.5 How do you position your organisation in this operating context?

Probe: Solution space (Data innovations), Problem space (Social systems), Identity space (Partnerships and advocacy) [PLJ now emphasizes 'Identity space' than other two]

Section 2: About major initiatives and data actions by the organisation

- 2.1 Could you tell us about major initiatives, which involved private sector?
[Data actions: Identifying data gap, Research component of the initiative, Data sharing, Data reporting]

Eg:

1. Project VAMPIRE

A platform providing integrated map-based visualizations that show the extent of drought-affected areas, the impacts on markets and the coping strategies and resilience of affected populations.

2. Inflation dashboard

A fit-for-purpose inflation monitoring tool, which can generate same-day inflation information to advise decision and policy makers working in the economic policy domain

3. After Dark

Qualitative project to understand women's travel behavior done after dark

4. Bangkok Metropolitan Sustainable Transportation

GIZ teamed up with Pulse Lab Jakarta, a joint initiative of the United Nations and the Government of Indonesia, to conduct a number of experiments contributing to Sustainable Bangkok Metropolitan Transport (reduced congestion etc.)

5. Alternative use of traditional data in times of COVID 19

Used FB data as well as official data, and worked with supportive counterparts in the government.

6. Dashboard prototype to assess post-disaster displacement

7. Dashboard to map smallholder farmers

2.3 Why didn't you partner with the private sector for certain initiatives?

Probe: Need for partnering, challenge, success

Note: Q. 2.4 to 2.10 are example questions. The moderator can explore different initiatives separately using example questions below.

2.4 Could you tell us more about the <After Dark> initiative?

Prob: Significance of the thematic area of the initiative to the country/region, partnerships (Public, Private, Not for profit)

2.5 Could you take us through the partnership building process (with the private sector) in <After Dark> initiative?

Probe: Initiation of the partnership, Enabling factors, Official relationships, Personal relationships, Relationships with Not for profit

2.6 Could you tell us about the 'data action' of <After Dark> initiative? [The respondent might not be familiar with the term 'data action'. In such instances the moderator has to unpack it ask relevant questions].

Prob: Data gap, Research component of the initiative, Data sharing, Data reporting

- 2.7 Could you tell us about capacity building and skill sharing activities related to <After Dark> initiative?
- 2.8 Could you tell us about technical service provision activities related to <After Dark> initiative?
- 2.9 Is the project ongoing? If not, why did it stop? What other stakeholders could you provide the output/data to?
- 2.10 Could you tell us about data governance/ data interoperability activities related to <After Dark> initiative?

Section 3: About the data action initiation

Note: Q. 3.1 to 3.7 are example questions. The moderator can explore different initiatives separately or as a whole using example questions below.

- 3.1 What were the general global/regional/thematic guidance documents, policies, corporate standards, etc that you used?
- 3.2 Who were the partners of data actions?
- 3.3 What role (if any) does the SDG agenda play in the partners <PLJ> picks?
- 3.4 Was private sector data considered for this project? Why wasn't it used?
Probe: Private sector organizations, Specific government institutes, Individuals, Not for profit
- 3.5 What is <PLJ's> strategy towards engaging with the private sector? Are these engagements typically one-off?

- 3.6 What is unique about <PLJ> in these partnerships?
Probe: Networks, Expertise, Tech skills, Brokering role
- 3.7 Could you tell us about nature of the partnership?
Eg: Partnered from the design stage, Partnered at the implementation, Shared Un/conventional data sets, Adoption of new operational practices
- 3.8 Could you tell us about coordination mechanism with those partners?
Probe: Common interests, Agreements/MoU, Knowledge and skill sharing, On the job knowledge sharing, Follow up mechanisms, Facilitators

Section 4: Data actions – impact assessment

[Note: Impact assessment can be done along 3 areas: 1. Operational impacts (changes in the way that you do business), 2. Ecosystem impact (analytic partnership and accelerator role) and 3. Methodological impact (new methods used)].

- 4.1 Could you tell us about data actions that worked well?
4.1.1 Did the project move beyond a pilot phase?
4.1.2 Is it sustainably established?
Probe: The context that facilitated the action, Guidance documents, MoU, Agreements, Facilitators, Commitment by the institutes
- 4.2 Could you tell us about data actions that did not work well? and why?
- 4.3 Could you tell us about the impact of the data action/s that worked well?
4.3.1 Did you close a data gap?
4.3.2 Who used the data?
4.3.3 For what purposes the data have been used?
4.3.4 What are the direct impacts of data actions?

- 4.4 Did it support reforms by enabling the environment?
- 4.5 What were the benefits for the partners involved?
- 4.6 What were the benefits for the government partners?

Section 5: Data actions – cross cutting themes: gender

- 5.5 Could you tell us about gender sensitivity of the data action? *Probe: Specific features of the design/implementation that addressed gender issues, Outputs*
- 5.5.1 Did you consider gender issues at the design stage of the data action? If yes, Probe: thematic area of the data action, partner selection, individuals involved
- 5.5.2 Did you consider gender issues during the implementation? If yes, Probe: Changes in the data action design, partner selection during the implementation
- 5.6 Could you tell us about beneficiaries of gender sensitive data actions?
- 5.7 Could you tell us about impact of gender sensitive data actions?
- 5.8 Could you tell us about need for cross cutting themes (such as gender, disability, Elderly, regional disparities, social inclusion) in data actions?

Section 6: Data actions – challenges and lessons learnt

- 6.1 Tell us about challenges faced when designing data actions? <if technical challenges like anonymization not mentioned by respondent, prompt> *Probe: Selection of thematic area, Selection of partners, guidance documents, legal environment*

-
- 6.2 Tell us about challenges faced when implementing data actions?
Probe: Coordinating with partners, Technological skills
- 6.3 Tell us about challenges faced when disseminating data actions?
Probe: Communication barriers, Stakeholder interest
- 6.4 Tell us about challenges faced when up-scaling data actions?
Probe: Funding, Tech skills, Data availability, Stakeholder interest
- 6.5 Tell us about potential data risks of data actions.
Probe: Foreseen risks, methods of mitigating risks
- 6.6 Tell us about funding challenges of data actions
Probe: Adequacy, Funder influence, Sustainable funding
- 6.7 Tell us about challenges you face due to the nature/structure of the organization.

Going forward in data collection:

Who do you think we should talk to:

- To understand operational level concerns of your initiatives?
- To understand your partners of different initiatives?
- To understand your relationships with external organisations?



SDG ACCELERATION ROADMAP

UNLEASHING THE POWER OF
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direccion@cepei.org

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