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G20 INDONESIA 2022

# THE UTILIZATION OF MPD ON MONITORING SDGs IN INDONESIA

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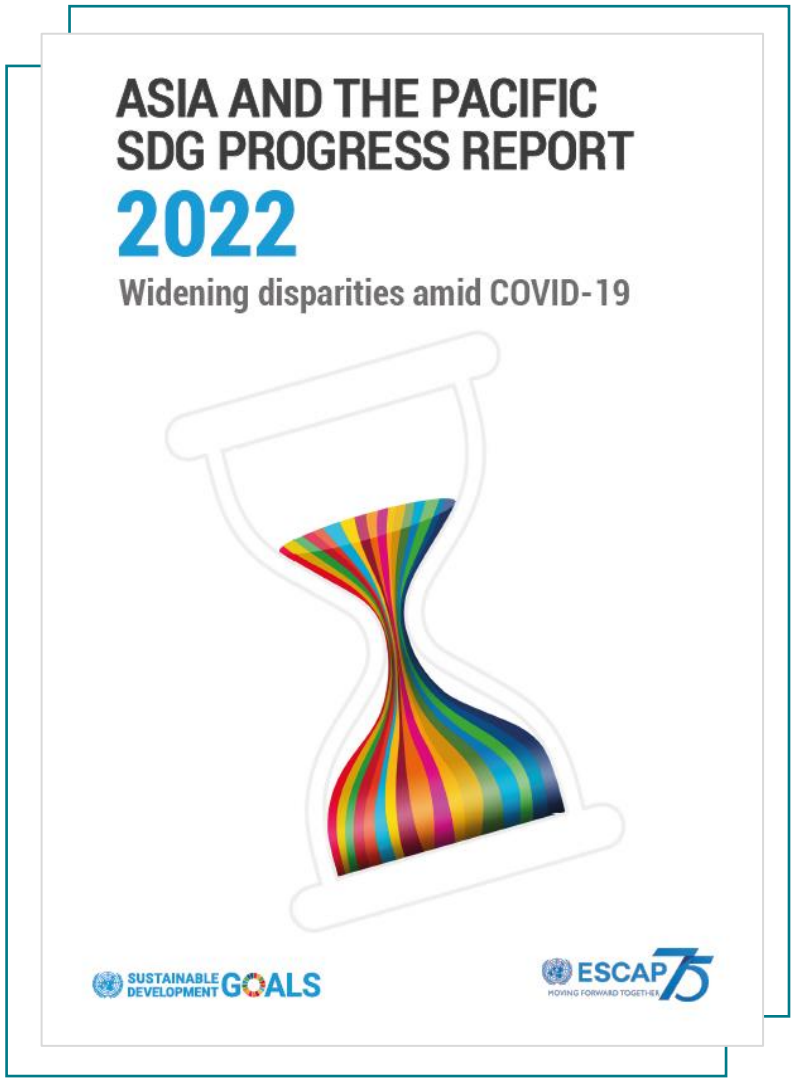
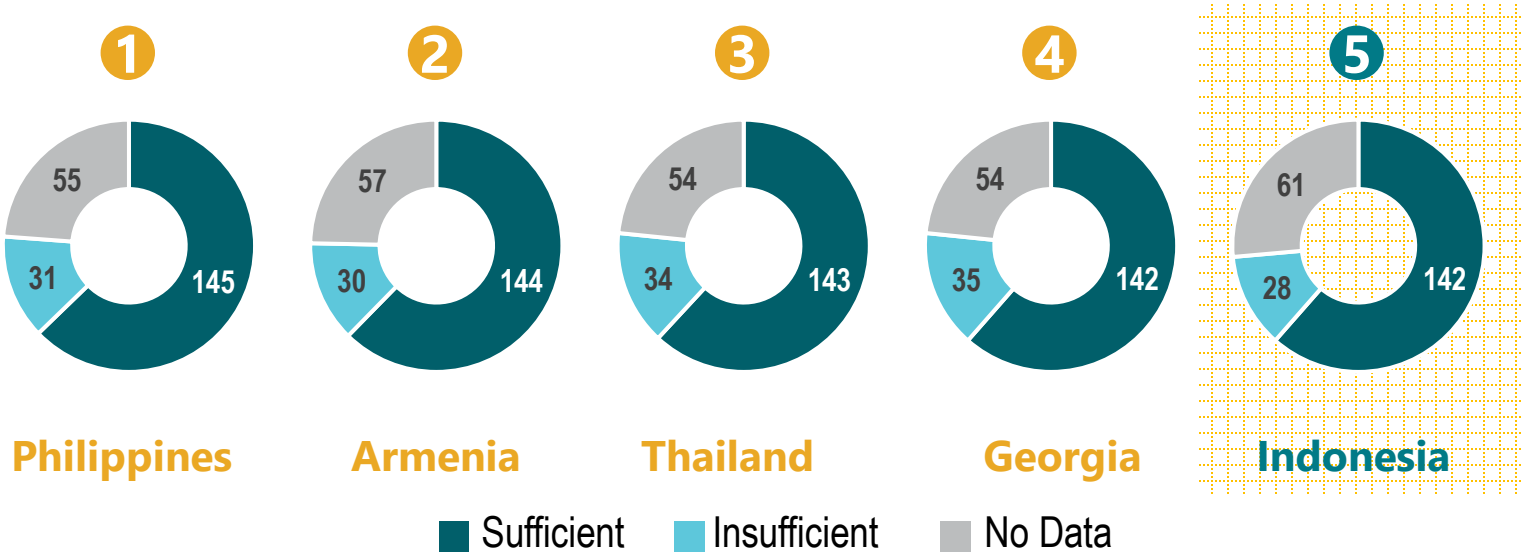
# Current Situation on SDGs Data Provision

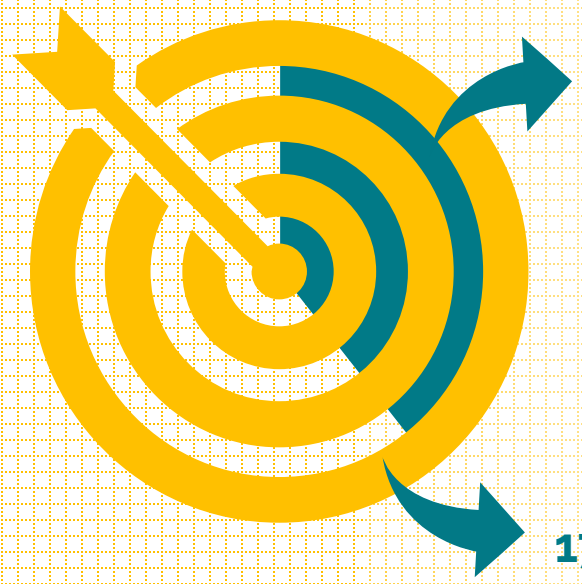



## Top five countries in the Asia-Pacific region with the most data available for SDG indicators, 2021




- Globally, there are still a number of SDGs indicators for which data are not yet available.
- For **Indonesia**, 61 data indicators are not available and 28 data indicators are insufficient.

# BPS Commitment on Providing SDGs Indicators



**114 (39,4%) from 289 National SDGs indicators** become the direct responsibility of BPS-Statistics Indonesia

**175 (60,6%) National SDGs Indicators** become the responsibility of the Other Ministry/Institution

## BPS's Role

***innovative data production and application***

- Indicators Improvement
- Statistical Model Improvement
- Utilizing of New Data Source

***coordination***

- Implementing the role of Statistical Data Advisor in the framework of Indonesia One Data (according to Presidential Regulation Number 39 of 2019)

# Innovation on Utilizing New Data Source


Census

Survey

Administrative Data

**Big Data,** what has Done by BPS**:**

## Mobile Phone Data

**8.9.1 Proportion and Growth Rate of the Tourism Sector Contribution to GDP**

**8.9.1.(a)** Number of international visitors
**8.9.1.(b)** Number of domestic tourism

## Satellite Imagery

1. **Degree of Urbanization and Rural Access Index**

   **9.1.1*** Population of villagers living within 2 km of a proper road

2. **Harvested Area Estimation**

   **Goal 2:** Eliminate hunger, achieve food security and good nutrition, and promote sustainable agriculture

# Proxy for Indicator 8.9.1

$$\text{Proportion and Growth Rate of the Tourism Sector Contribution to GDP} = \frac{C_{domestic\_tourist} + E_{outbound} + E_{gov} + I_{tourism} + NX_{trip}}{GDP} \; x \; 100\%$$

*Note:* $C_{domestic\_tourist}$ = *Consumption of Domestic Tourists*
$E_{outbound}$ = *Expenditure of Outbound Tourism*
$E_{gov}$ = *Expenditure of Government for Tourism*
$I_{tourism}$ = *Investment on Tourism Sector*
$NX_{trip}$ = *Nett export of trip services (export of trip services-impor of trip services)*

**Definition: Tourist (8.9.1a and 8.9.1b)**
*(International Recommendation of Tourism Statistics, UNWTO)*

- Outbound Tourist: Traveling outside Indonesian territory, while Domestic Tourist: Traveling within Indonesia territory Travel
- Outside the usual environment
- Not done regularly/not classified as routine activities
- Length of the trip is not more than 12 months
- Main purpose of the trip is not to get wages/salaries from residents at the destination

# The Use of MPD for Tourism Statistics

## Background

BPS relies on **the Immigration Record and Border Survey** for Inbound & Outbound Tourism Data → *under coverage*

- ***Not All Borders have border gates***
- *Not All Border Gates have **24/7 Immigration service***
- *Border Survey is **too expensive** and can not be done in all unattended gates (remote area need special effort to be reached)*

## Opportunity

### Change Paradigm
Conventional survey to big data use

### Increasing Cellphone Coverage
355 million cellular subscriptions in Indonesia vs 270 million population (2020), which is 131 percent

### Accessibility and Method Of MPD
MPD has recently use in many countries to measure urban mobility

# The Use of MPD for Tourism Statistics

## What has BPS done

### Collaborate with Data Users
*Ministry of Tourism and Creative Economy, Ministry of Development Planning, Central Bank*

### Cooperation with Mobile Network Operators (MNO) on Access Data

### Development of MPD Algorithm
*To determine home and work location*

### Monthly Press Release for Inbound Tourism

*Scan qr-code to download the latest data or visit s.bps.go.id/tourism-01-10-2022*

## History

**2017**
***Start using MPD for cross-border visitor*** *to complete immigration administration data*

**2018**
***1. Cross-border visitor***
***2. Start using MPD for Domestic Tourism*** *to produce monthly data at district/city level*

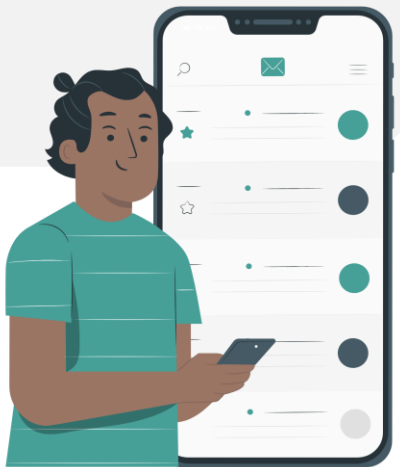
**2019**
***1. Cross-border visitor***
***2. Domestic tourism***
***3. Start using MPD for Outbound Tourism*** *to produce outbound data by destination country*

**2020**
***1. Cross-border visitor***
***2. Domestic tourism*** *(the traditional survey was still used in several districts)*
***3. Outbound tourism*** *(the traditional survey was still used)*

**2021**
***1. Cross-border visitor***
***2. Domestic tourism***
***3. Outbound tourism***
**Traditional surveys for domestic and outbound tourism completely stopped*

# Digital Survey Based on MPD

One of the weaknesses of MPD is limited variables. For this reason, digital surveys are used to enrich information in the form of the characteristics of traveler.



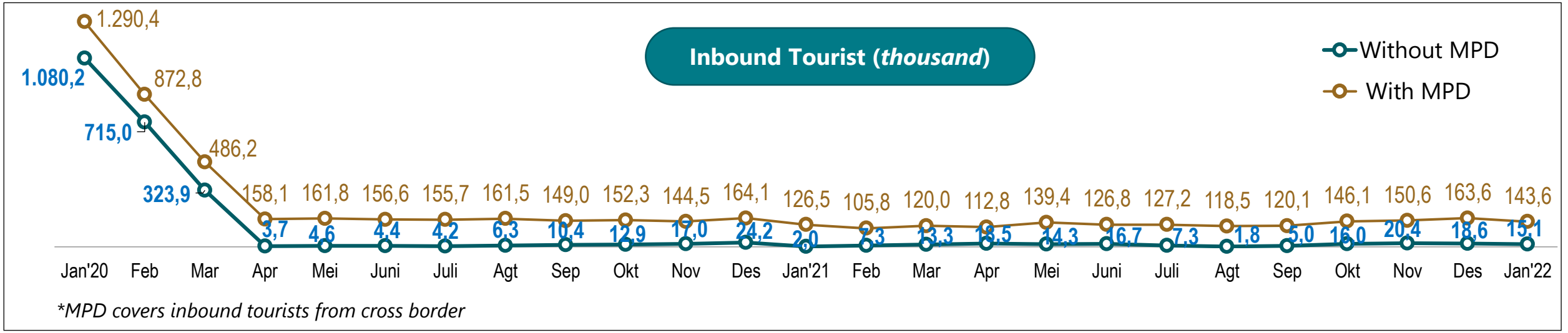
## MOBILE POSITIONING DATA

1. Number of Trips
2. Number of Traveler
3. District/city of origin
4. District/city of destination
5. Length of trip

## SURVEI DIGITAL

- Economic-Social characteristics (Gender, Age, Main Occupation)
- Main purpose of trip
- Travel activities
- Transport mode
- Accommodation
- Expenditures during the trip

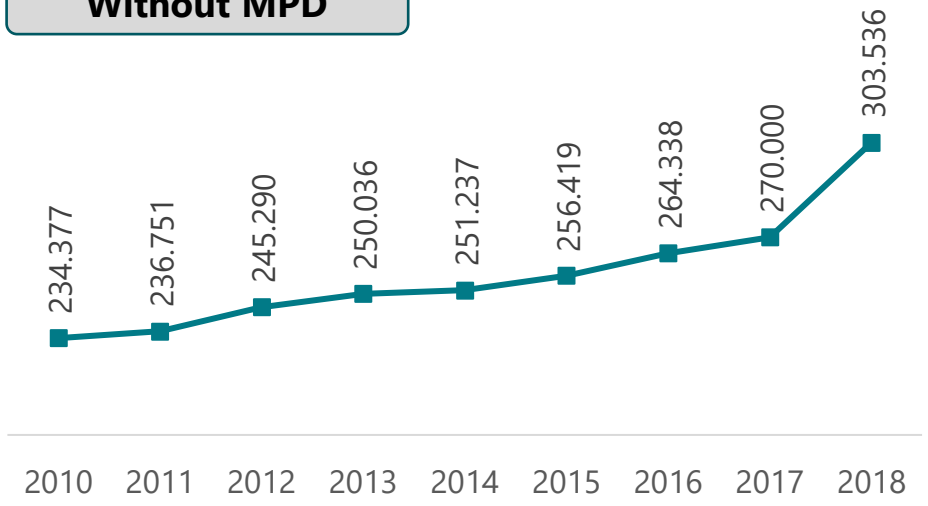
# MPD for Tourism Statistics: With and Without MPD



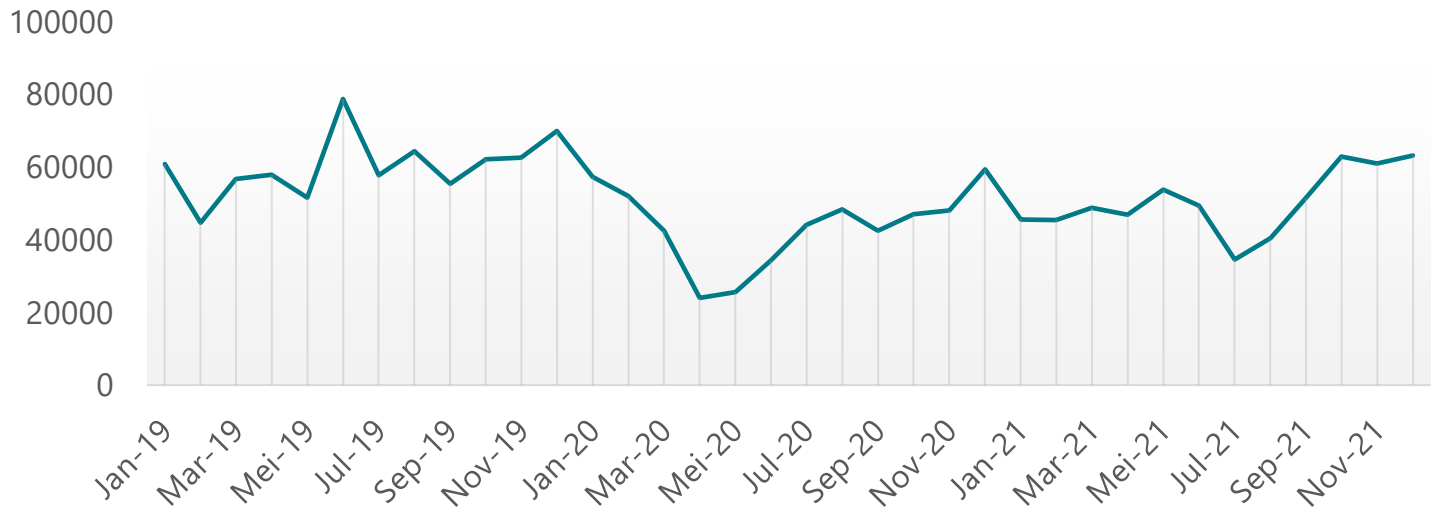

**MPD covers inbound tourists from cross border*

## Domestic Tourist (*thousand*)

### Without MPD




### With MPD



# CHALLENGES

- *Concepts and methodology standardization*
- *Limited variable*
- *Data privacy issue*
- *Data access and sustainability of data*
- *Human resources and infrastructure*

1. *Regulation adjustment proposal*
2. *Periodic Improvement of MPD algorithm & Methods*
3. *Continuous Quality Assurance*
4. *Human resource and infrastructure improvement*

# CONCLUSION

Currently, Indonesia has used MPD as a supporting indicator for the SDGs

Opportunities to take advantage of MPD are still open

Through various studies, BPS continues to use Big Data to support the provision of SDGs indicators

However, the challenges in using big data must be considered

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# Thank you!

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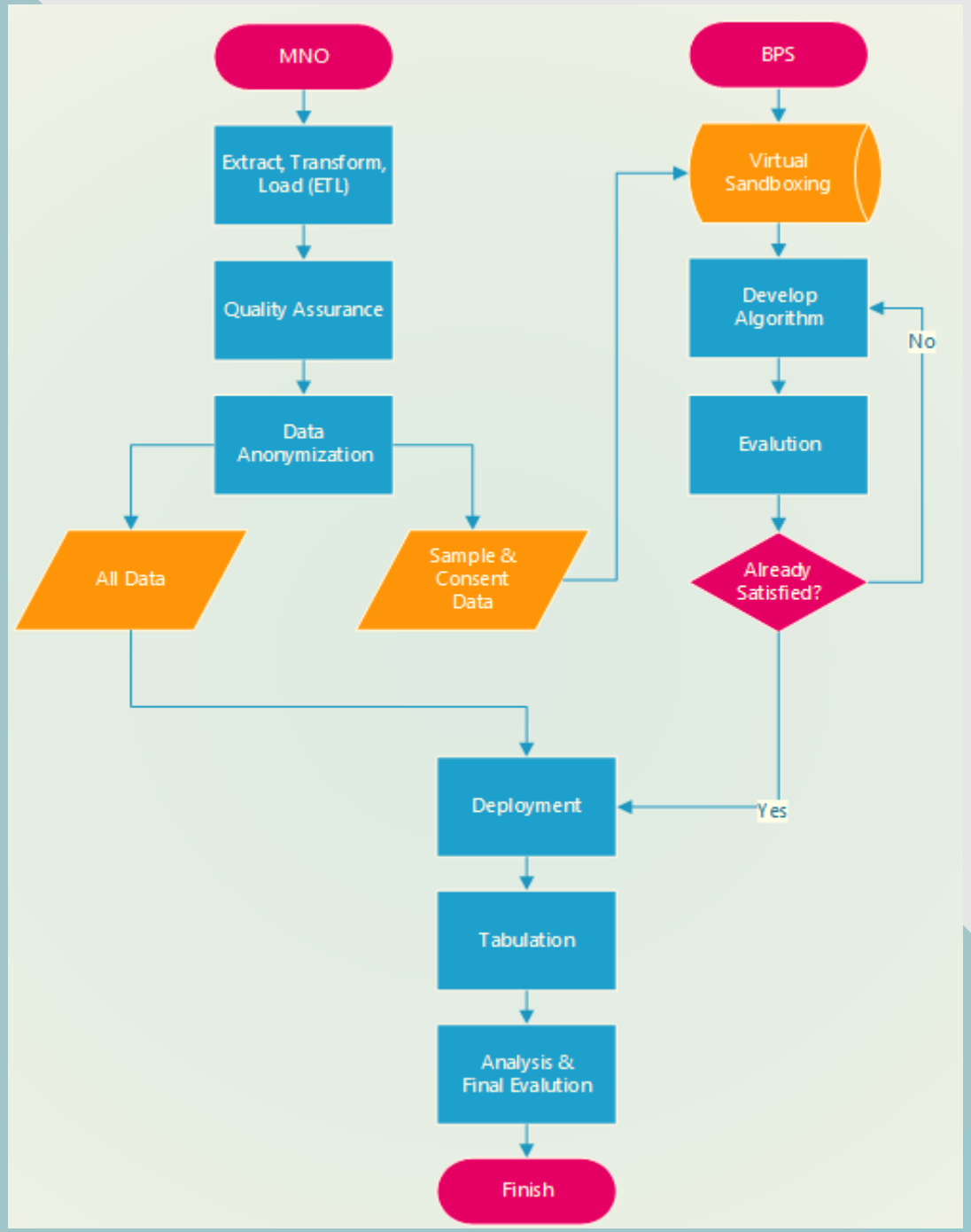
Pict by: Andi Pranowo (BPS Kab. Blitar)




# General Work Flow