



Challenge Opportunity in Pandemic

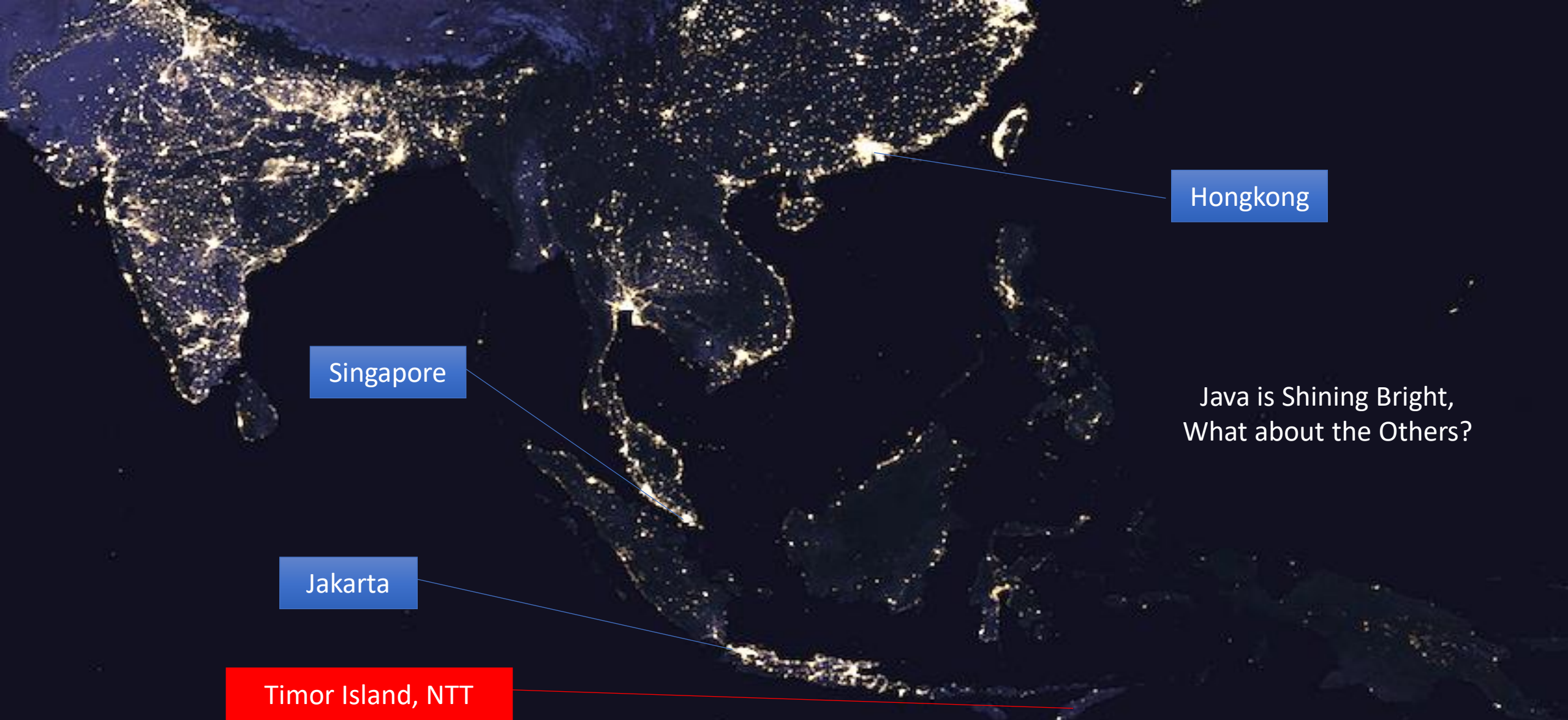
Sustainable Local Empowerment
by Utilizing Renewable Energy

Study Case: Eastern Part of Indonesia

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Indonesia: Energy **Rich**, yet Electricity **Poor**



Hongkong

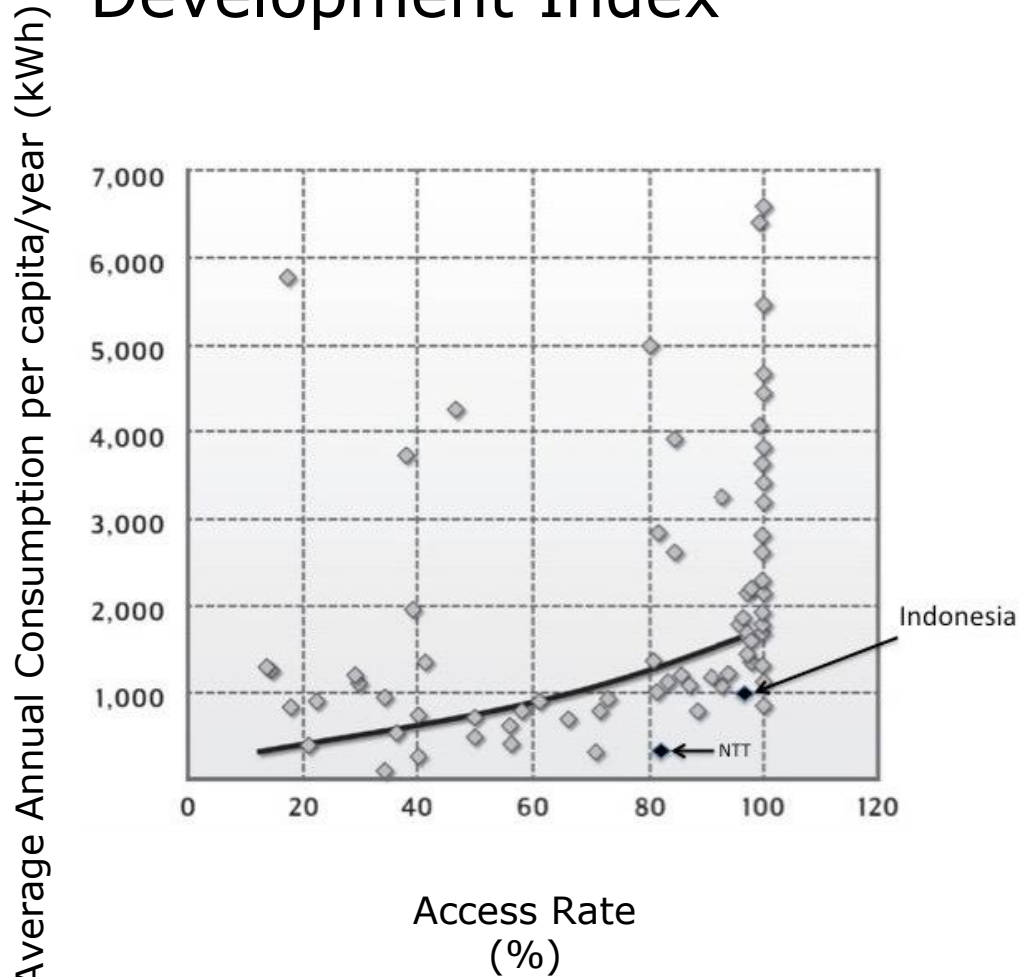
Singapore

Jakarta

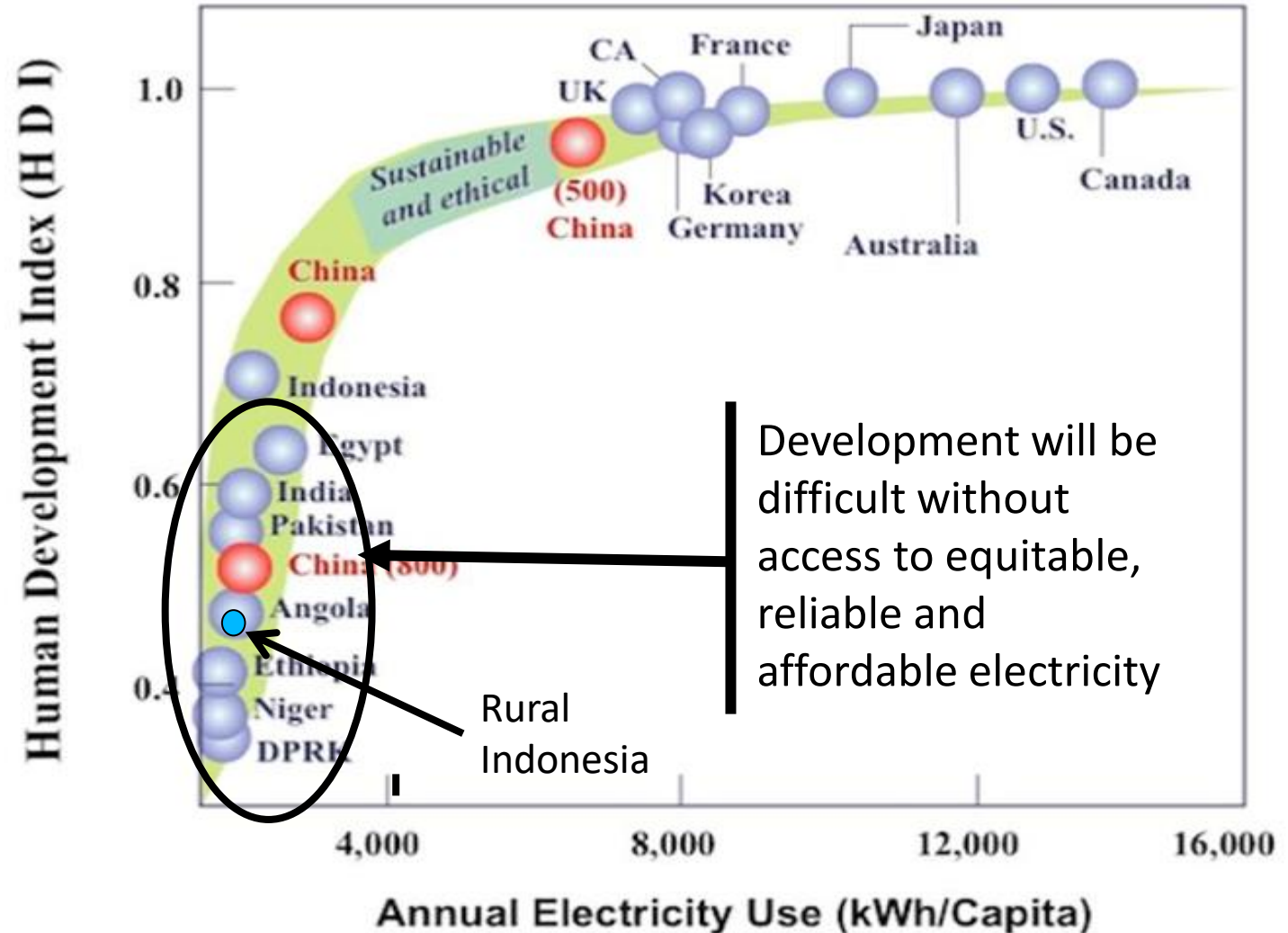
Timor Island, NTT

Java is Shining Bright,
What about the Others?

Reality in remote and underdeveloped regions: Low Electricity Consumption Leads to Low Human Development Index



Source: World Bank



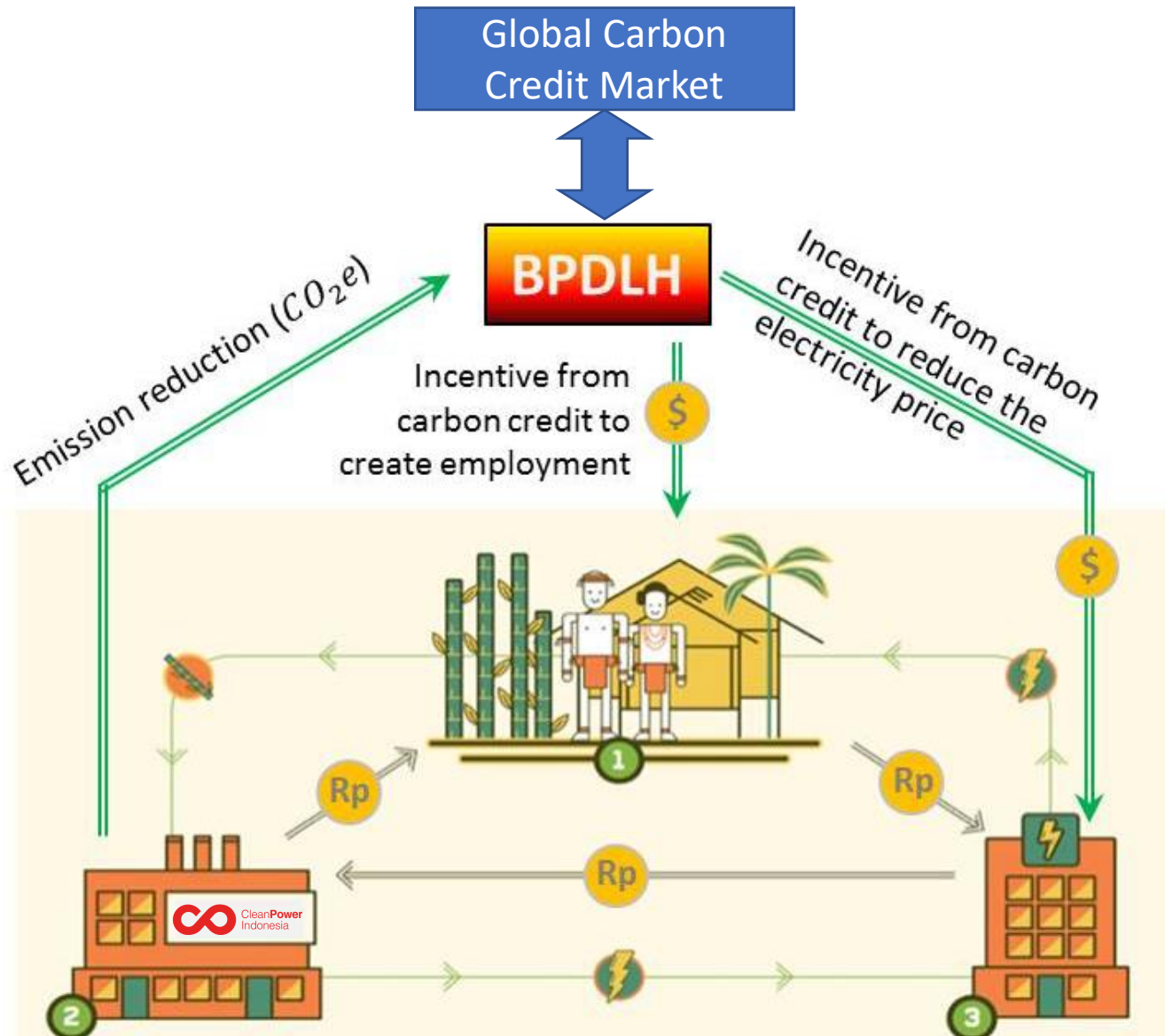
Problem Statement



Indonesia needs a “fit for purpose” solution as the biggest archipelago in the world:

- The energy source is **renewable** and can be obtained **locally**
- The effect of the harvesting process of the energy source to the ecological system must be **minimal** and must involve **reforestation effort** (protection of watershed area, landslide mitigation and flood prevansion mechanism).
- The generation system must be **dispatchable** and **scalable**
- The electricity produced must be **equitable**, **reliable** and **affordable**

Proposed Solution



- The community act as electricity consumer as well as biomass supplier.
- With the income from supplying biomass, the community can afford to purchase the electricity.
- This model will help the population in underdeveloped regions that has low education level to get additional income.
- PLN benefits from lower cost of electricity generation.
- Carbon credit payment actually delivers direct benefits such as local employment and universal access of electricity to local population.

Some remaining issues:

- Is PLN ready to replace diesel gensets with locally sourced renewable energy? How would PLN increase electricity consumption per capita in remote and underdeveloped regions?
- Are the existing developers ready to build technology know how and capacity to meet demand? Will the technology be capable of supplying reliable and equitable electricity for those population just like in the cities and major economic centers?
- Where will the funding come from? If the available public funding is not enough, how can the government attract private money in a massive scale?
- How to create jobs opportunity for the locals from these massive investment? Will they become major beneficiaries of this development or will they just act as object?

Would special regulation be needed?