MEPS *Monitoring dan Evaluasi Perhutanan Sosial*

Policy Brief III-2018

Monitoring poverty in social forestry areas

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Perhutanan Sosial **(PS, Social Forestry)** is the sustainable forest management system within the government-designated state or customary forest areas. Between 2015 and 2019 the Indonesian Government will allocate 12.7 million hectares of forests to PS. Social Forestry aims to increase the wellbeing of people whilst sustaining environmental balance and enhancing social-cultural dynamics.

Forest designated as PS is managed by local communities which are granted the right to develop forestry-based activities and use the land according to an approved management plan. All PS must conduct monitoring and evaluation activities every five years, according to their management plans. However, there is a need for a coordinated large scale monitoring mechanism in order to evaluate whether the overall PS programme is effective at improving human wellbeing.

Here we compare two approaches used to assess poverty and wellbeing levels in PS villages over time. We compare the government Potensi Desa (PODES) village census data, with a field-based method targeting households in West Kalimantan. We list some of the advantages and disadvantages of each method, and describe conditions associated with successful PS villages.

Key recommendations

Different methods are available to monitor human wellbeing, which account for multiple dimensions of poverty.

When monitoring social forestry schemes in individual villages, household-level tools like NESP, will reveal the aspects of poverty that are currently most pressing.

To monitor social forestry over large scales (e.g. kabupaten, province), the national PODES data also provide multidimensional poverty indicators.

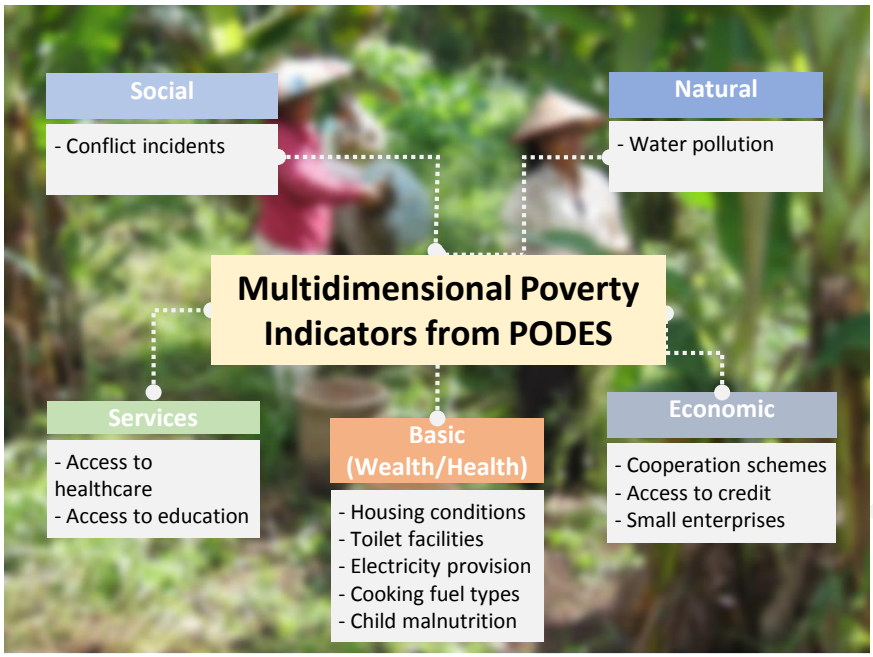
Both tools give similar conclusions, and allow for local-level monitoring over time

Monitoring change in poverty status

Multidimensional Poverty Assessment using Potensi desa (PODES) data

Poverty is commonly reported as the proportion of people living below a global standard of $1.90 a day[1], but in fact poverty is a lack of many things. For example, people may lack satisfactory basic needs such as access to housing, healthcare or education. For this reason, alternative indicators of poverty also exist, which capture overlapping deprivations suffered by people. The Multidimensional Poverty Index is used by international development organisations[2] to measure non-monetary dimensions of poverty. In Indonesia the index uses information such as the DHS and PODES data[3].

PODES data are collected by the Indonesian Bureau of Statistics every 3-5 years in villages across the country. The database is available at the level of the village administration unit, which can be joined to spatial boundary files to map poverty information, and determine changes over time over large areas.



The indicators used from the *Potensi desa* government data to characterise five dimensions of poverty in West Kalimantan villages. Additional indicators from PODES could be used depending on the objective of the study.

Advantages:

- Government data used to inform development policy.
- Data already available at regular intervals and can be prepared with GIS knowledge.
- Available for large geographic areas (all Indonesia).

How to use:

- To inform and evaluate implementation at the district, provincial or national scale.
- Can track quantitative changes over time (when same indicators are available).

Things to consider:

- Data are gathered at the village-level so variation in poverty among households or dusun is not revealed.
- Measures of economic or financial assets is minimal.
- Boundary changes in Indonesia make comparisons over long time periods challenging.

1. https://data.worldbank.org/topic/poverty
2. http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf
3. Alkire, S., & Santos, M.E. (2013) A multidimensional approach: poverty measurement & beyond. Social Indicators Research, 112, 239-257.

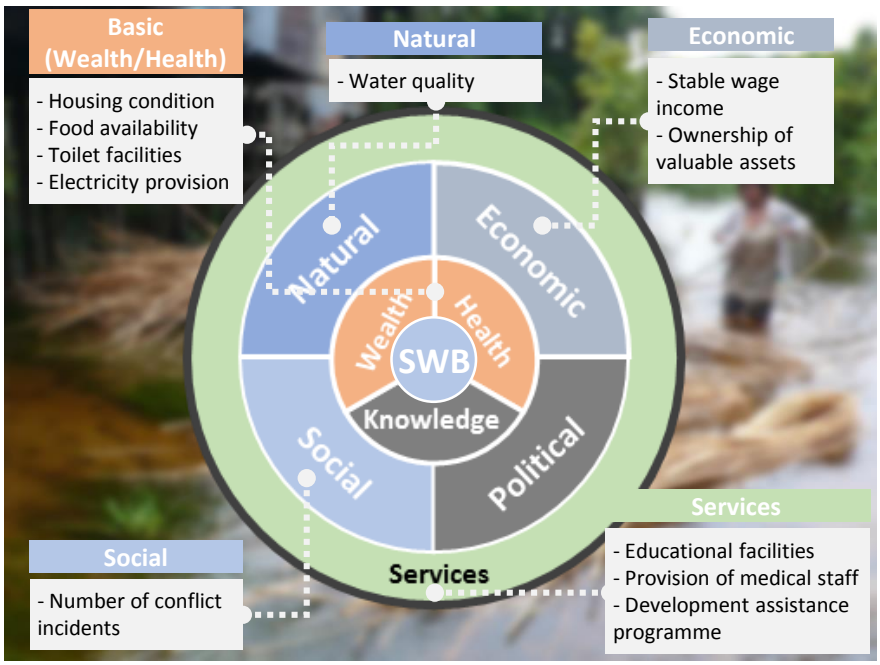
Monitoring change in poverty status

Nested Spheres of Poverty (NESP)

NESP is a method for assessing household poverty and wellbeing that was created for Indonesia by CIFOR in 2006[4]. The NESP approach defines three main conditions to be monitored:

1. Subjective wellbeing (SWB)
2. Core wellbeing, which includes measures of health, wealth and knowledge
3. Enabling environment, which includes measures the condition of the natural environment, as well as economic and social circumstances.

Together, these components cover the basic needs of people, their individual assets and capabilities, and the circumstances that enable people to escape poverty.



The conceptual framework of the NESP method showing the different components of subjective wellbeing, and the indicators used to characterise poverty in West Kalimantan villages.

CIFOR tested the method in East Kalimantan in 2006, which was later used in West Kalimantan in 2012. NESP involves household questionnaires, which are then combined to give information about the village. Sufficient households must be surveyed to ensure data are representative of the village – approximately 33–35% of all households in a village. However, if there are <20 households in a village, then all of them should be surveyed[5]. Many of the survey questions are similar to PODES, but not all.

Advantages:

- Provides information at the household, rather than village level.
- Includes a measure of subjective wellbeing, in addition to other non-monetary poverty measures.

How to use:

- To inform and evaluate implementation at the village level.
- To identify which aspects of poverty currently cause problems in villages.

Things to consider:

- Needs sufficient sample size (minimum of 20 households or 33-35% of village).
- Data collection can be time consuming and prohibitively expensive for large areas.

In 2017, we repeated the 2012 NESP surveys conducted in seven villages in West Kalimantan so that we could investigate changes in multidimensional poverty over time. So that we could compare poverty measured using PODES to that measured using NESP, we grouped similar indicators from the two tools into five dimensions: basic, natural, social, economic and services

4. Gönner, C., Haug, M., Cahyat, A., Wollenberg, E., deJong, W., Limberg, G., Cronkleton, P., Moeliono, M., Becker, M. 2007. Capturing nested spheres of poverty: a model for multidimensional poverty analysis and monitoring. CIFOR Occasional Paper; no. 46. 24p
5. Cahyat A, Gonner C, Haug M. 2007. Assessing household poverty and wellbeing. A manual with examples from Kutai Barat, Indonesia.

Poverty status and change in West Kalimantan

Here, we compare results from the NESP and PODES methods to assess poverty status and change in West Kalimantan villages. NESP data was available for 7 villages in 2012 and 10 villages in 2017. Six received huta desa status by 2017.

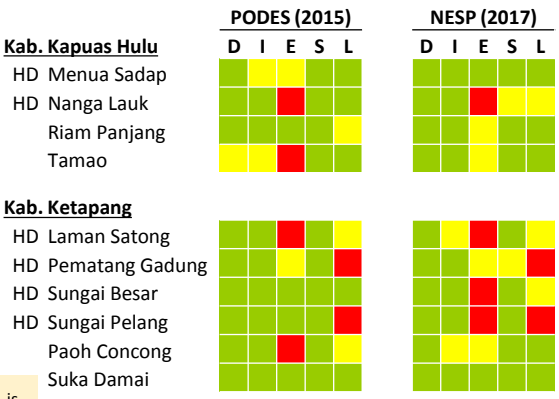
The closest available years with PODES data were 2011 and 2015 (2017/18 data were not available). We used 15 indicators from PODES, and 12 indicators for NESP. The indicators were mostly identical, but different for *economic* wellbeing. Therefore, we should be cautious when interpreting the economic dimension of poverty.

We compared: (i) the current poverty status in each village measured using the two different methods, PODES and NESP.
(ii) changes in poverty status detected by the 2 methods.

(i) Poverty status

PODES and NESP methods reveal similar patterns for basic, infrastructural (services), social and environmental wellbeing. The two methods use different indicators for economic wellbeing so results are inconsistent. Agreement is 73% with economic indicators excluded.

All villages in Kapuas Hulu, including those with *hutan desa* (HD), are relatively prosperous in all aspects of wellbeing except economic. Ketapang HD villages have particularly low and environmental wellbeing, and poor economic wellbeing by some indicators.

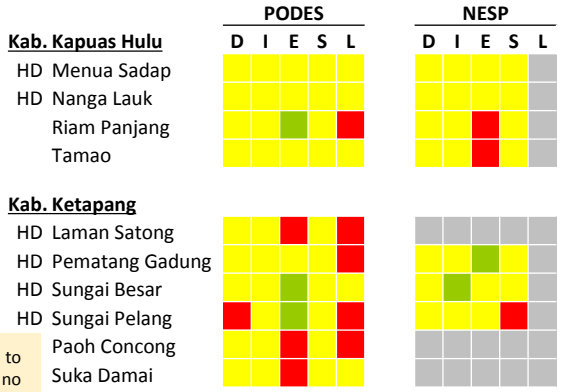


Colour refers to the status combined across indicators for each poverty component and is relative to all villages in the study. Red is poor, and green is prosperous. Yellow is moderate. Only 1 indicator is available to measure *environmental* (water quality) and social (conflicts) wellbeing .

(ii) Poverty change

Poverty status in Kapuas Hulu villages has changed little since HD were implemented. Most villages surveyed in Ketapang, including those with HD, have experienced reduced environmental and economic wellbeing according to PODES. Economic wellbeing improved in 2 villages, but worsened in 3 others.

However, it may take longer than the 5 years between these surveys for wellbeing to improve.



Colour refers to the direction of change in wellbeing for each poverty component and is relative to all villages in the study. Red is reduction in wellbeing, and green is improvement. Yellow is no change. Information on water quality was not available to measure *Environmental* wellbeing in the 2012 NESP surveys.

How we produced the traffic light indicators…
The current poverty status using PODES data (2014) was estimated using average percentile scores of the associated indicators, i.e. red = poor = 0-33th percentile, yellow = moderate = 33-67th, green = good = 67-100th. For NESP methodology the scores were rescaled to percentages and a similar threshold used (which depended on the format of the indicator – see CIFOR methodology). The indicator for poverty change is simply the direction of change in status from the first survey to the second survey (e.g. green is improvement in status; red is reduction). Agreement can be calculated as the percentage of indicators that produced identical outcomes in each method. Note that the methods rarely produce the opposite outcome (i.e. when an indicator is poor for one method, but prosperous for another).

Why are improvements to wellbeing better in some social forestry villages than others?

Studies in villages of West Kalimantan give us some early insights into the successes of recently established social forestry schemes. The local context, including the type of forest, and support for the community, are key. It is important to note that it will take time for the benefits for social forestry to be felt, but we can learn lessons from existing schemes, to improve those elsewhere

Social forestry success stories…

The most successful PS schemes in Kalimantan have been in forests on mineral soils, with strong community involvement. For example, in Kab. Ketapang the community at Laman Sotong has a strong reliance on the 1070 ha HD for water supply and non-timber forest products. People fought hard to prevent the area being converted to oil palm. Payments set up with NGOs via REDD+ enable regular activities and monitoring, giving further incentive (albeit small) to protect the forest.

In Kab. Kapuas Hulu the Menua Sadap HD covers 1,395 ha of Limited Production Forest between the Danau Sentarum and Betung Kerihun National Parks. Few people clear land for farming as the terrain is steep. Instead the community use the forest mainly for non-timber products, fishing, and hunting, which are allowed under a permit as long as the ecosystem is stable. With forest surrounding the HD, threats are low.

Lessons learned:

- Early successes are part due to long history of community use in the forest, and facilitation by NGOs.
- HD in forested landscapes inherently have low threat because of the location.
- In agricultural landscapes, HD can be successful if there are sufficient incentives (e.g. REDD+) for protection.

Lessons learned:

- External conditions, for example water loss through canals, increase fires in peatland, making degraded HD difficult to manage.
- HD can be effective at slowing down deforestation if assistance is given for water management.
- Prospects may improve if there is jurisdictional responsibility for peatland management.

Social forestry challenges…

PS schemes in peatland are more difficult, but not impossible to manage. For example, HD Sungai Pelang, covers 411 ha of the Pematang Gadung peatland in Kab. Ketapang, and comprises peat forest, shrub and open wetland. Surrounding the area are oil palm plantations, bauxite mining, and small scale agriculture, and a canal made for road construction has decreased the water table. The area is severely degraded by fire and much of the original forest has burnt. The community applied for HD status to reduce threats and fund canal blocking, peat rewetting, and free-fire agriculture.

At Nanga Lauk in Kab. Kapuas Hulu, the HD comprises 1430 ha of peatland within a large block of production forest. Here, the community relies on the forest for honey collection and fisheries. There are concerns about over-fishing, encroachment and fires, but threats are relatively low.

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