

### The persistence of precarity: youth livelihood struggles and aspirations in the context of truncated agrarian change, South Sulawesi, Indonesia

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#### Abstract

Processes of rapid and truncated agrarian change—driven through expanding urbanisation, infrastructure development, extractive industries, and commodity crops—are shaping the livelihood opportunities and aspirations of Indonesia's rural youth. This study describes the everyday experiences of youth as they navigate the changing character of agriculture, aquaculture, and fishing livelihoods across gender, class, and generation. Drawing on qualitative field research conducted in the Maros District of South Sulawesi, we examine young people's experiences of agrarian change in a landscape of entangled rural, coastal and increasingly urbanised spaces. We find that young people aspire to secure, modern, and salary-based work, while continuing to seek and sustain intergenerational farming or aquaculture-based livelihoods. Youth take advantage of increased connectivity to diversify their incomes, yet their dependence on mobility also introduces new forms of gendered and class based precarity such as insecure working arrangements, disruption to education and violence (especially for young unskilled women and youth from financially insecure households). Our study highlights the persistent conditions of precarity that many young people encounter in both rural and urban settings, while challenging assumptions that youth are uninterested in rural futures.

Keywords Rural youth · Livelihoods · Aspirations · Agrarian change · Mobility · Indonesia

#### Abbreviations

- BPS Badan Pusat Statistik, Statistics Indonesia
- KIMA Kawasan Industri Makassar, Makassar industrial zone
- SMP Sekolah menengah pertama, middle or junior high school
- SMA Sekolah menengah atas, senior high school with an academic focus
- SMK Sekolah menengah kejuruan, senior high school with a vocational focus

### Introduction

I'm worried because my income isn't much, I will have to look for more income, because my inheritance from the tambak (aquaculture ponds) won't be much (young woman who assists with her parents tambak, alongside piecemeal work processing cashew nuts, Pajukukang, 9/10/2022).

I want to go away, I'm bored here ... But if you are looking for work, it is very difficult. Especially now, if young people want to find (salaried) work, if they have no inside connection, that's a problem. That's why a lot of my friends are unemployed (male youth employed by a motorbike company who also helps with his parents tambak, Pajukukang, 8/10/2022).

The quotes above reflect the increasing number of Indonesia's rural youth who struggle to sustain intergenerational agriculture or transition to secure, off-farm activities in

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urban areas. While classic theories of agrarian change suggest that rural agricultural societies will transition to industrial, market-based wage labour opportunities in increasingly urbanised settings (De Koninck 2004; Rigg et al. 2020), this transition often unfolds in a more complex, truncated or segmented manner (Dressler and Pulhin 2010; Li 2011; Rigg et al. 2018). In Indonesia, 'truncated agrarian change' makes young people's livelihoods "radically insecure" (Li 2010a, p. 1) as it exhibits "no pathway from country to city, agriculture to industry, or even a clear pathway into stable plantation work that pays a living wage" (Li 2011 p. 296). These challenges have led scholars to ask, who will tend the farm of the future (Rigg 2006; White 2015) and what lies ahead for the rural youth who simply cannot (or do not want to) pursue rural livelihoods (Li 2010b; Li 2017a)? Indeed, the departure of young people from farming in Indonesia has led to widespread concerns of an "ageing farmer population" problem (Iswara 2020), spurring government initiatives that provide agricultural training and incentives to young people under the pretext of promoting a more modern, entrepreneurial 'millennial farmer' (Toumbourou et al. 2023).

However, rather than the pursuit of either rural or urban based livelihoods (Baird 2022; Gillen et al. 2022), young people in Indonesia are increasingly mobile and entangled in both rural and urban spaces (Clendenning 2022; Parker and Nilan 2013). Farmers of all ages adopt different yet complementary forms of on and off-farm work depending on seasonality, opportunity, and economic potential (Nooteboom 2019; White 2020). Rural households often draw on diverse livelihood strategies as they negotiate change while keeping "one foot" in agriculture (McCarthy 2020). Related studies also show how social identity (i.e., the intersection of gender, class and generation) alongside young people's aspirations shape access to, and the ability to pursue, certain livelihood and mobility opportunities in landscapes undergoing major agrarian change (Park and White 2017; White 2020; White and Margiyatin 2016). While these trends have been described in Indonesia and elsewhere in Southeast Asia, few studies have focused on the lived experiences of youth as they navigate the changing character of livelihoods, mobility and educational opportunities across rural, coastal and urban spaces.

Drawing on qualitative data that captures the everyday experiences of rural youth, we examine how young people from smallholder households adapt and respond to processes of 'truncated agrarian change'. Our definition of the smallholder includes marine and aquaculture-based livelihoods and "occupational multiplicity" (Rigg et al. 2018, see also Belton and Bush 2014; Fabinyi et al. 2022, and Peluso 2017). We understand truncated agrarian change in reference to the growing body of literature that describes the lack of a clear pathway—from rural to urban opportunities—for the many young people in Southeast Asia who are navigating livelihoods amongst processes of rapid agrarian change (Li 2011; Rigg et al. 2018; White 2020). Our study draws attention to the way declining rural livelihood opportunities, changing aspirations, expanding urbanisation and infrastructure developments are transforming young people's livelihoods, leading to new opportunities alongside conditions of precarity.

# Youth, agrarian change and livelihood precarity in Indonesia

Throughout Southeast Asia, rural young people's livelihoods are increasingly precarious as they respond to changing agrarian relations and processes of economic expansion (Rosario and Rigg 2019). 'Precarity' refers to situations wherein rural or urban households face a marginal social existence, sustained economic insecurity and considerable livelihood unpredictability (Standing 2011). In rural Indonesia, precarious livelihoods are facilitated by the growth of plantations and extractive industries, uncertain inheritance patterns, declining agricultural productivity and high-capital input costs as well as rising land prices, which marginalise and exclude young people in their quest to access and benefit from land or aquaculture-based livelihoods (Ambarwati et al. 2016; Iswanto et al. 2022; Leavy and Hossain 2014; Li 2010b; Rigg et al. 2018; Yusuf 2013). Combined with shifting generational aspirations and greater access to education, these changes can push youth towards the pursuit of increasingly precarious off-farm livelihood activities (White 2020).

Indeed, Indonesia's rural youth are increasingly mobile as they rework the insecurity of, and growing structural constraints to accessing, rural farm-based livelihoods (Clendenning 2022; Parker and Nilan 2013; Tualle et al. 2023; White 2020). In this article, we use the term mobility to refer to geographic mobility, which includes the movement of individuals over relatively shorter distances and time, as well as migration involving longer distance moves that are temporary, permanent as well as circular or seasonal in nature (see Hugo 1982). In Indonesia, young people's mobility pathways are differentiated by class and gender dynamics, and young women often seek opportunities overseas as domestic helpers or in retail, service and manufacturing in nearby urban areas (Elmhirst 2002; Kelly 2011; Koning 2005; Lindquist 2010; Malamassam 2016; Pardede and Mulder 2022; Silvey and Elmhirst 2004; Utomo et al. 2013). Young women and men both secure jobs labouring for plantations or working for the extractive industries in Kalimantan or Malaysia, however their roles and responsibilities are differentiated (Kelley et al. 2020; Li 2017b; Sinaga 2021). Some youth with access to adequate finances also migrate to urban centres for tertiary education or formal job opportunities (Naafs 2012; Robinson 2016; Naafs and Skelton 2018). Yet, in conjunction with mobility, farming remains an attractive component to young

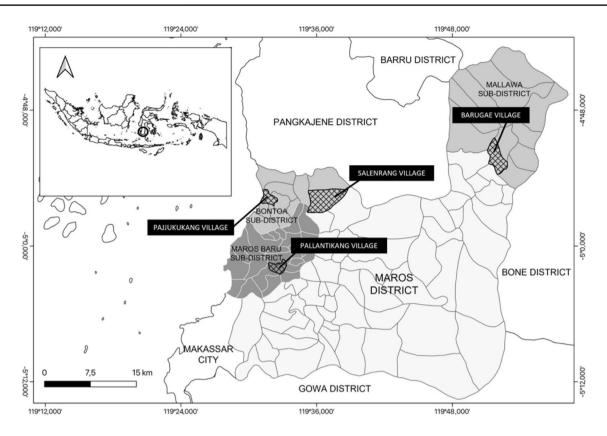


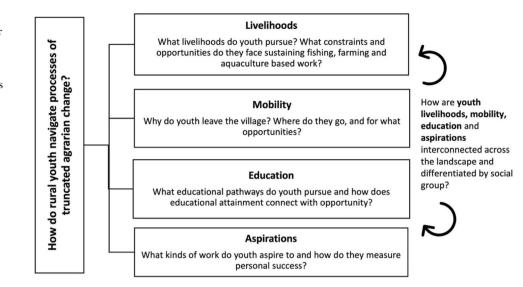
Fig. 1 The location of the four fieldwork villages (Barugae, Salenrang, Pajukukang and Pallantikang) in Maros District, South Sulawesi

people's increasingly pluri-active livelihoods, particularly if adequate land and capital inputs are available (Aprilia et al. 2019; Nugraha and Herawati 2014; White 2020, 2021). The international and domestic migration pathways that youth follow are therefore, often circular or temporary, and are intertwined with the persistence of rural livelihoods through the transfer of remittances (Clendenning 2022; Elmhirst 2012; Rigg et al. 2016, 2018; Nugraha and Herawati 2014; Parker and Nilan 2013; White 2020; Yusuf 2013).

Despite the new livelihood opportunities that mobility can provide, Indonesia's youth continue to face precarious futures in both rural and urban areas (Clendenning 2022). They are more likely than their adult counterparts to be employed in the informal economy occupying casual precarious jobs, despite aspiring to secure and salaried positions (White 2020). Furthermore, while it is increasingly difficult to find employment without higher levels of education, there is a mismatch between qualifications achieved and the reality of jobs on offer (Parker and Nilan 2013). The potential and constraints of mobility (and immobility) are therefore tied up with gendered livelihood roles, responsibilities and aspirations that, intersecting with ethnicity, income, and age, unfold differently depending upon the geographies of home and local social norms (Elmhirst 2002, 2011; Huijsmans 2016; Huijsmans et al. 2021; Malamassam 2016; Silvey and Elmhirst 2004). These findings underscore the need to better understand the socially-differentiated conditions of precarity that youth encounter across rural and urban spaces.

# Study site description: Maros District, South Sulawesi

This study examines rural young people's livelihoods and aspirations across four villages in the rural, coastal and periurban fringes of Maros District, South Sulawesi (Fig. 1). The economic development of South Sulawesi has facilitated rapid and widespread landscape changes in the Maros District, with the expansion of mines, railways, airports, factories and housing developments, alongside the enclosure of national parks, on once productive rural farmland or aquaculture areas. South Sulawesi province, also known as the 'Gateway to Eastern Indonesia' is increasingly drawing the attention of the Indonesian state, alongside domestic and international investors, as a site of strategic economic development. In the mid-1980s, an industrial manufacturing zone known as KIMA (Kawasan Industri Makassar) was established on the outskirts of Makassar (Silvey 2000), and in 2014 construction of the trans-Sulawesi railway line, which cuts across large stretches of productive land, began (Salim **Fig. 2** The conceptual and methodological approach of our study, focused on livelihoods, mobility, education and aspirations in the context of changing landscapes, across social groups (i.e., gender, class and generation)



and Negara 2018). In addition to industrial and infrastructure development, Maros District has also undergone major changes in local modes of agricultural production. These include the shrimp boom and bust of the 1990s, enclosure of the Bantimurung-Bulusaraung National Park on upland shifting candlenut cultivation in 1994, and overall declining agricultural yields (particularly rice) over the past decades (Batiran et al. 2021; Herrawan et al. 2022; Murniati et al. 2022).

These widespread landscape changes have transpired in tandem with notable progress in educational attainment across generations. The literacy rate for young people in Maros aged 20 to 24 years is now 99 per cent, compared to 65 per cent for adults aged 50 and above (BPS-Statistics Maros Regency 2021). The mean number of years of schooling for those aged 25 years and above has also risen in the last decade, from 6.88 years in 2010 to 8.01 years in 2021 (BPS-Statistics South Sulawesi 2022a, b).<sup>1</sup> This changing educational and agrarian landscape has altered the livelihood opportunities of the district's large and growing labour force,<sup>2</sup> particularly for young people who are negotiating a labour market vastly different to that of their parents' generation. Our study focuses on four villages in Maros district: Barugae in the forested hinterland (Mallawa subdistrict, population 1130), Salenrang in a transitional karst and rice farming landscape (Bontoa subdistrict, population 5618), Pajukukang in the low-lying coastal plain (Bontoa subdistrict, population 4284) and Pallantikang in the peri-urban outskirts or *desakota* (literally village-city, McGee 2002) of Makassar (Maros Baru subdistrict, population 3848) (Fig. 1). Salenrang, Pajukukang and Pallantikang are all situated in proximity to Makassar, approximately 30–40 km from the city centre, making daily commutes possible, while Baruage is situated further into the hinterland (approx. 95 km from Makassar).

### Methodology

Our analysis focuses on young people's everyday experiences of agrarian (or marine and aquaculture) change, with an emphasis on livelihoods, education, mobility and aspirations (Fig. 2). We ask, how do differently positioned youth (across gender, class and generation) navigate processes of truncated agrarian change to secure meaningful livelihood opportunities and aspirations in rural and urban spaces? Our approach considers how youth livelihoods and aspirations intersect with, and are formed through, power, agency and identity (gender, class, age and generation) amid uneven political and economic conditions (Clendenning 2019; Parker and Nilan 2013; White 2016; White and Margiyatin 2016). This methodology pays attention to how social differentiation and identity intersect with changing environmental conditions to shape access to, and control over, livelihood resources and opportunities (Yuval-Davis 2006; Hopkins 2019; Porter et al. 2010), while acknowledging that youth maintain a degree of agency even in difficult circumstances

<sup>&</sup>lt;sup>1</sup> However, while notable educational progress has been recorded overtime, Maros is still one of the lower performing districts in the province. In 2021, the school participation rate for youth aged 16—24 in Maros was notably lower than the provincial average. For high school, the school participation rate for youth aged 16—18 in Maros was 70.56%, slightly lower than the provincial participation rate of 71.71%. The school participation rate for youth aged 19–24 in Maros (24.21%) was significantly lower than the provincial figure (35.1%) (BPS-Statistics South Sulawesi 2022a, b).

<sup>&</sup>lt;sup>2</sup> In 2020, the total population of Maros District reached 389,537 people, which is an annual growth rate of 2.81 per cent. Statistics calculated from Kabupaten Maros Dalam Anggka 2020.

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Village	Total no. interviews	Female youth (18–30 years)	Male youth (18–30 years)	Female adults (31 years +)	Male adults (31 years +)
Barugae	26	6	8	7	5
		(5 landowners, 1 landless)	(6 landowners and 2 land- less)	(6 landowners and 1 land- less)	(4 landowners and 1 landless)
Salenrang	19	3	6	5	5
		(all landowners)	(3 landowners and 3 land- less)	(4 landowners and 1 land- less)	(all landowners)
Pajukukang	27	5	13	5	4
		(3 landowners, 2 landless)	(3 landowners and 10 land- less)	(2 landowners and 3 land- less)	(2 landowners and 2 landless)
Pallantikang	16	4	5	2	5
		(all landless)	(1 landowner and 4 landless)	(both landless)	(3 landowners and 2 landless)

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Table 1 An overview of the interview participants, including gender, age and landownership status

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Youth landowners include young people who manage their parents land but may be yet to formally inherit land

(Naafs and Skelton 2018; Parker and Nilan 2013; White and Margiyatin 2016).

We focus on youth in the 18–30-year-old age range, a period that entails significant social and economic change for young people, such as leaving compulsory education or beginning tertiary studies, finding a first job, engaging in mobility, gaining greater levels of autonomy, marriage and beginning a family. For the underemployed and unemployed this period may also entail involuntary idleness or time-pass (Jeffrey and Dyson 2021). This partial life-course perspective (Huijsmans 2016), highlights how skills, knowledge, aspirations and opportunities continue to transform as youth navigate significant social and economic changes (Utomo et al. 2013).

#### Qualitative data collection and analysis

In-depth qualitative fieldwork was conducted in the Maros District between November 2021 and June 2022. Prior to fieldwork, a university ethics protocol was approved, and informed consent was granted by all participants. Participants were of either Buginese (especially in the highlands) and/or Makassar ethnicity. In total, 88 semi-structured interviews were held with youth (18–30 years) and adults (31 years and above) in each of the four villages (21 young women, 31 young men, 19 adult women and 19 adult men) (Table 1). Focus group discussions (FGD), were also held in three of the four villages, involving a range of participants (men and women, young and old).<sup>3</sup> The interview and FGD leading questions focused on the following themes:

(1) social and agrarian village histories, (2) current livelihood activities and constraints, (3) educational attainment of youth and older generations, (4) experiences of domestic and international mobility, and (5) the future aspirations of youth and their perceptions of success. The fieldwork was conducted by researchers from a local university and collaborators met routinely online to discuss the fieldwork process.<sup>4</sup> All interviews and FGDs were audio-recorded, transcribed and translated by several of the researchers.

Participants were initially selected with assistance from each village head, however; recruitment also involved informal encounters and 'snowball sampling' as the researchers build rapport with villagers. The researchers attempted to involve informants across a range of social groups, particularly gender, age, class and landholding status (Table 1). In Barugae, most of the informants (~80%, n=21) came from families with small landholdings, who farm rice, vegetable crops or manage candlenut groves. In Salenrang, informants also mostly came from families with small landholdings, who manage rice or aquaculture ponds, and often both (~75%, n = 15). Fewer informants held land in both Pajukukang (~60%, n = 17) and Pallantikang (~75%, n = 12), where landlessness rates are higher, and many villagers work as fisher people and traders. Involving a diverse range of social groups allowed the researchers to examine how aspirations and opportunities vary according to aspects of social and economic differentiation. The researchers made several visits to each village site, firstly to build rapport, and then to follow-up on key themes and findings. During an initial scoping visit, researchers spent up to two days in each village. They then returned, spending up

<sup>&</sup>lt;sup>3</sup> A total of 19 participants joined the FDG in Barugae (5 women, 14 men), 12 participants in Salenrang (3 women, 9 men) and 11 participants in Pajukukang (4 women and 7 men). No FGD was held in Pallantikang due to time restrictions. During the FGDs, as mix of mixed gender and gender segregated break out discussion were held to ensure all participants had a chance to express their voice.

<sup>&</sup>lt;sup>4</sup> Due to COVID19 travel restrictions, not all collaborators were able to assist with data collection. Fieldwork adhered to COVID19 safety precautions and local restrictions, and data collection occurred outside of peak COVID19 case surges. During the data collection phase, researchers met regularly online to reflect on the research process.

to one week in each village location, to conduct the interviews and FGDs. Subsequent shorter stay visits were made to each village (i.e., a day at a time) to solicit in-depth information and consolidate findings.

Following fieldwork, thematic analysis was conducted collaboratively by researchers from each of the universities involved. Key themes related to changing youth aspirations, specifically the role of education, mobility and involvement in agricultural or marine based livelihoods, were identified and manually compiled. Interview findings were cross-checked and triangulated with the findings of other interviews and FGDs. Researchers paid particular attention to different experiences of the key themes across dimensions of gender, age, class and landownership status.

# Results: young people's livelihoods struggles and aspirations across the landscape

Our findings highlight the varied ways young people secure livelihoods, within and beyond, Maros District, South Sulawesi. Below we outline the livelihood constraints, mobility patterns, educational achievements, and aspirations of young people in each of the four villages, across gender and class dynamics (for a comparative summary of the villages see Table 2).

### Barugae village: agrarian change and circular migration

In upland Barugae, farming remains a key livelihood activity for young people. However, access to land is increasingly constrained, and maintaining a rural lifestyle is often dependent on periods of mobility. In 2010, 86% of both working young men and women were involved in agriculture-related work, involving food crops (rice paddy, red chilli Capsicum annuum, ginger Zingiber officinale) and harvesting candlenut (kemiri, Aleurites moluccanus) groves (suppl. material 1; BPS-Statistics Indonesia 2010). Historically, shifting candlenut cultivation-introduced by the colonial government in the early nineteenth centurywas the main commodity of the village; however, production has steadily declined due to lower yields, conservation enclosures and the expansion of competing commodity crops (Mujetahid et al. 2023). Over the past few decades, Barugae villagers have experimented with various other

commodity crops, leading to mixed outcomes, including cocoa (which struggled to take hold), ginger and chilli.<sup>5</sup>

Mobility-involving regional, domestic and international pathways-provides a means for young people to access education and a wider array of livelihoods opportunities than those available within the village. While most youth in Barugae village complete junior (SMP) and senior high school (SMK/SMA)<sup>6</sup> in nearby Mallawa, others choose to temporarily relocate to Makassar to access pesantrens, or to take advantage of urban based high schools. Youth from more financially capable households access tertiary education at universities in Makassar, while other young people seek urban-based retail work or entrepreneurial opportunities. These youth often return to the village during semester breaks, over weekends or on days off, sometimes to assist with farm work. As one young woman from a landowning family who is now studying for a fashion degree in Makassar explained: "I prefer to live in the village because it is peaceful. But if I open a business, I want it to be in Makassar because there are more opportunities in Makassar than in the village" (female tertiary student, 22, Barugae, 25/12/2021).

Barugae village has long been a site for the outmigration of families and youth, and in the 1960s the first cohort of families reportedly left the village in "search of a better life" (*"mencari penghidupan yang lebih baik"*). In the past young women from Barugae have migrated to Saudi Arabia to work as domestic helpers, and both young women and men continue to work on oil palm and rubber plantations in Kalimantan or Malaysia (Fig. 3). On plantations, men are typically employed to help with harvesting, laboratory work or as kitchen hands, while women operate boom gates, oversee parking, and are involved in daily maintenance activities. Young people who have since returned from these jobs to Barugae explained the high cost of living, labour intensive and dangerous nature of harvesting as reasons why they chose to return. While our study did not cover the stories of youth who have remained working in the outer islands, several older informants explained that their children have settled in Kalimantan, sometimes sending remittances home or using their earnings to raise their own families. Adults who participated in earlier waves of out-migration from the village reinvested their wages earnt abroad in agricultural land in Barugae village or the education of their children.

<sup>&</sup>lt;sup>5</sup> Prior to the fieldwork, the price of fresh ginger, alongside the medicinal instant ginger powder that is produced in the village, had risen significantly due to increased demand associated with the COVID19 pandemic.

<sup>&</sup>lt;sup>6</sup> SMP (*sekolah menengah pertama*) refers to middle or junior high school, SMK (*sekolah menengah kejuruan*) to vocational high school, and SMA (*sekolah menengah atas*) to high school (with a more academic focus).

Village	Livelihood constraints	Education <sup>a</sup>	Mobility	Aspirations
Barugae	<ul> <li>Encroachment of national park and expansion of commodity crops</li> <li>Declining farm productivity, land size, uncertain inherit- ance patterns</li> </ul>	<ul> <li>High school completion (SMP/ SMA/SMK)</li> <li>Restricted tertiary studies due to cost and distance (often depends on earnings from migration)</li> </ul>	Circular migration to: - Plantations in Kalimantan, or Malaysia (m/w) - Overseas domestic work (w) - Makassar for education or retail work (w/m)	<ul> <li>Financial security</li> <li>University education</li> <li>Civil service</li> <li>Land ownership in village</li> </ul>
Salenrang	- Declining productivity and enclosure of rice farms and aquaculture ponds	- Early high school leavers (SMP/SMA/SMK)	- Regional mobility as drivers, mechanics or building labour- ers (m), or trading in Makas- sar or Papua (w/m)	<ul> <li>Financial security</li> <li>University education</li> <li>Civil service</li> <li>Entrepreneurial work in the tourism sector</li> </ul>
Pajukukang	<ul> <li>Declining productivity of aquaculture ponds</li> <li>Decreased earnings from long haul fishing trips</li> </ul>	- Early high school leavers (SMP/SMA/SMK)	<ul> <li>Seasonal migration to fishing grounds, Kalimantan (house- holds)</li> <li>Regional mobility as building labourers (m) or traders (w/m)</li> </ul>	- Financial security - Salaried retail work
Pallantikang	<ul> <li>Declining productivity of rice &amp; aquaculture ponds</li> <li>Smallholder land enclosures (infrastructure development, floods and dry periods)</li> </ul>	<ul> <li>High rates of high school completion (SMP/SMA/ SMK, proximity to Maros and Makassar cities)</li> <li>Restricted tertiary studies due to cost</li> </ul>	- Labour migration to Papua (marketplace traders, farm labourers, fishermen) (w/m)	<ul> <li>Financial security</li> <li>Salaried retail work</li> </ul>

 Table 2
 An overview of young people's livelihood constraints, educational achievements, mobility patterns and aspirations across four villages in Maros District, South Sulawesi

W activities dominated by young women; m for young men

<sup>a</sup>SMP (middle or junior high school) graduates have completed 9 years of total schooling, while SMK (vocational high school) or SMA (high school with a more academic focus) graduates have completed a total of 12 years of schooling. In 2013, Indonesia introduced 12 years of compulsory education. While each of the villages in our study have access to high school at the district level, there are still some economic barriers to completing these 12 years

These households were able to use migration as a means of upward social mobility, as one of the first men who left Barugae village while in his early 20 s explained that with migration: "you can send your children to school, you can umrah (go on the pilgrimage) too. If I had not migrated, I might not be able to do this now because if we stayed here, where would we get the money from?" (male farmer, 60, Barugae, 16/12/2021).

Yet, the out-migration of young people from Barugae has also introduced new livelihood precarity, particularly for the younger and unskilled generation of migrants (women and men). During interviews we heard accounts from women who have faced gendered violence and discrimination as young domestic helpers abroad. One woman who has since returned to Barugae, described how as a young woman, she fled her first employer in Saudi Arabia due to frequent physical assaults. After finding refuge in a shelter, she went on to work for another employer and stayed for another five years, sending remittances home and eventually using her earnings to invest in a rice field and candlenut trees in the village (female farmer, 39, Barugae, 26/12/2021). Other returned migrants from oil palm plantations in Malaysia described how they were subject to frequent interrogations, the risk of deportation and burdened with the necessity of always carrying personal identification. Long-term migration can also adversely influence the educational attainment of dependent children. We met with another young woman who had attended a school in Sabah, Malaysia that was established for migrant children with parents working for oil palm plantations. She recently returned to Barugae with her parents, yet soon dropped out of her new school, claiming the social and educational environment was too unfamiliar and the language barrier difficult to overcome (she is now more fluent in the related Malay language) (female youth, 18, Barugae, 26/12/2021).

While agrarian livelihoods are increasingly connected with urban and plantation-based opportunities, young people continue to aspire to land ownership should good fortune (*rejeki*) come their way (Table 2). One young man who is actively working towards land ownership explained his preference: "*I like farming because it's not binding, we are free to go to the fields at whatever time, wake up at whatever time*" (male famer managing his parents' land, 22, Barugae, 25/12/2021). Some of the young people we spoke with valorise rural life and aspire to one day permanently return to the village for good, due to the lower cost of living, abundance of food staples, sense of community and peaceful atmosphere. Even if young people don't formally own

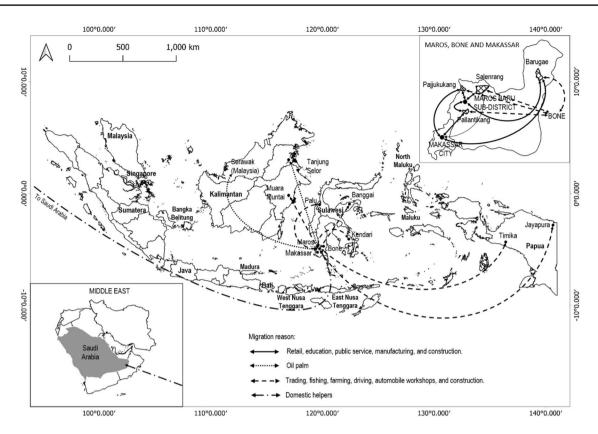


Fig. 3 Common migration pathways of Maros' young people throughout Indonesia and abroad

land, many have management rights to their parent's land, or enter into sharecropping arrangements, with some landowners delaying the formal transfer of ownership to avoid conflict among children. Furthermore, some youth who pursue opportunities in urban areas periodically return to the village to help with on-farm activities. One young woman now studying a mathematics degree in Makassar described her ongoing involvement and commitment to her parent's farm with the following: "*I've been taught to like it since a child because that's where our parent's income comes from*" (female tertiary student, 23, Barugae, 31/05/2022). This same informant explained her aspirations for marriage, and her hope that marriage will encourage her parents to formally pass on their land through inheritance.

In addition to land ownership and migration, some youth, or perhaps more aptly their parents, aspire for secure positions in the civil service that provide a regular pay-check. Many of the young people in this village expressed aspirations to become teachers, police officers or to join the military. When we asked one mother what she hopes for her children, she replied: "to become civil servants, all parents want their children to become civil servants" (adult female farmer, Barugae, 27/12/2021). Yet, this aspiration often isn't realised, and we heard from various male youth who have

had difficulties understanding the recruitment process and requirements for both the police and military.

Young people's aspirations in Barugae also extend beyond labour and livelihood goals, with many aspiring to be good and moral citizens who contribute to society. One young woman explained her desire to labour for good: "If I am successful, I can share with others, like an orphanage. Because what's success for if we don't give alms, if we just enjoy it ourselves?" (female tertiary student, 23, Barugae, 31/05/2022). All youth we spoke with explained how they desire to be financially independent and to be able to provide for others, especially immediate family members. For some, achieving this independence is facilitated through migration or marriage, both of which can help to facilitate land ownership through purchase or inheritance. Overall, the findings from Barugae highlight how young people's aspirations are entangled in both urban and rural spaces, with village life still providing livelihood opportunity and a favourable lifestyle for those with land who choose to return.

### Salenrang village: emerging industries and entrepreneurial opportunities

In Salenrang village, agriculture, aquaculture and fisheries remain an important component to young people livelihoods, yet due to declining yields and land availability they are conducted alongside an increasingly diversified array of off-farm alternatives, involving new industries and entrepreneurial pursuits (Table 2). In 2010, most young women and men in this village worked in some form of trade or retail, followed by agriculture (including aquaculture), and then fisheries (suppl. material 1, BPS-Statistics Indonesia 2010). Salenrang's 'shrimp boom' of the mid 1990s saw many rice fields and mangrove forests converted to aquaculture ponds (tambak) to breed predominantly tiger shrimp (Penaeus monodon) alongside milkfish (Chanos chanos). At the height of this boom, young people reportedly left school early to take advantage of the new industry. Today, many of Salenrang's farmers still manage both rice fields and tambak, cultivating rice during the wet season (November to February) when floods occur and *tambak* when the rains cease in March. However, nowadays tambak provides fewer opportunities for young people, due to the cost of chemical inputs, prevalence of disease (in the shrimp), and risk of flood inundation. The high cost of converting to an alternate land use means some ponds are even left abandoned.

To supplement declining agriculture and aquaculture incomes, young people are therefore turning to new opportunities, such as construction jobs, labouring for the extractive industries, factory work, trade, or entrepreneurial activities especially in the tourism sector. These jobs are benefit from on a high school education, and youth from Salenrang can access junior or middle high school (SMP) within Salenrang village, and senior high school in nearby Maros (both SMA and SMK). From the early 2010s onwards, Salenrang, and more specifically the hamlet of Ramang-Ramang, established itself as a tourism destination, drawing in both a domestic and international market for boat trips through a karst landscape. Youth have capitalised on this new industry, building entrepreneurial activities as tour guides, boatmen (pajjoloro), parking attendants and in hostels and food stalls. Some youth also expanded their entrepreneurial skills to buying and selling agricultural products (chickens and eggs) or clothing on social media platforms. Alongside these new forms of entrepreneurialism, some young men from the village work as drivers and labourers for the Bosowa limestone quarry and cement factory that borders the village.<sup>7</sup> Young women in Salenrang also supplement their incomes by peeling the shells off cashew nuts for intermediatory merchants, who transport the cashew nuts to Makassar for further processing. Additionally, some women from higher income households benefit from tertiary education opportunities in Maros city, studying teaching or nursing degrees whilst still

<sup>7</sup> The hamlet of Ramang-Ramang has also been the site of conflict over mining operations in the karst mountains, and villagers lead a resistance movement in 2009, which saw mining permits for a Chinese-owned mine revoked by the district government in 2013.

living at home. Once married however, these occupations are increasingly difficult to sustain as women are expected to remain in the village, manage the home and raise children.

Situated in proximity to Makassar city, access to agricultural land for Salenrang's youth is increasingly constrained by nearby mining operations and the incoming railway line. In 2020, some farmers sold rice paddy fields to allow construction of 1.4 km of railway line, including the Ramang-Ramang station. Tensions over the construction of this infrastructure, and associated acquisition of land, is ongoing today (records suggest a total of 15 farmers sold, while another 13 continue to resist).<sup>8</sup> While young people in Salenrang face constrained access to land, they also benefit from local village led organisations and initiatives, such as training opportunities in English language and organic farming techniques. This ability to self-organise proved valuable for the promotion of the tourism sector and the workers who support it. Yet, in the face of land pressures, infrastructure expansion and declining crop yields, youth livelihoods remain increasingly uncertain. As one informant working temporarily as a driver for the nearby cement factory noted about the future: "yes, I'm worried. I don't know what I'm going to do after this, I don't know what Allah's plan is" (male youth, 21, Salenrang, 30/01/2022).

Like Barugae, young people in Salenrang migrate beyond the village to search for new opportunities and experience. Limited access to agricultural land (through the construction of infrastructure), declining productivity of tambak and rice fields (related to flooding) and diminishing land parcel size as smallholdings are divided amongst offspring, have encouraged young people to migrate. Migrants often work as traders selling small goods and phone credit (pulsa) in Central and West Sulawesi, Southeast Sulawesi, East Kalimantan, and Papua (Fig. 3). Yet, migration brings new risks, and many permanently settled migrants in Palu (Central Sulawesi) were forced to return temporarily following the devastating impacts of 2018 Palu earthquake. Youth in Salenrang also engage in everyday mobility, commuting to Makassar and Maros Baru to work in retail, petty trade, and manufacturing in the KIMA industrial zone.

Notably, the emergence of Salenrang's new tourism industry has provided an alternate pathway to out-migration and young people also aspire to new entrepreneurial activities within the village. Indeed, for some youth, entrepreneurial activities are even seen to outcompete with young people's aspirations to join the civil service. Entrepreneurial opportunities particularly benefit young people who lack the connections and educational achievements needed to pursue these traditionally coveted forms of employment. Entrepreneurial activities are a particularly attractive option for

<sup>&</sup>lt;sup>8</sup> https://news.mongabay.com/2021/08/indonesian-farmers-refuse-tobudge-for-train-line-through-karst-landscape/.

young women, especially mothers, who run small businesses (food stalls and homestays) while caring for their children. One young mother, who owns a small amount of rice and *tambak* in the village, has been able to secure work as a local ticketing attendant. When asked about her aspirations to work elsewhere, she explained: "*with my level of education, it would be impossible, so I thank Allah that I can work here, I don't have to go out, it's close to home and I can still take care of my children*" (young mother, 28, Salenrang, 27/01/2022).

#### Pajukukang village: from fishing to precarious work

Young people's livelihoods are increasingly insecure in the coastal village of Pajukukang, where aquaculture ponds (tambak) and the fishing industries are the biggest employers of youth, and young women have a very low workforce participation rate (suppl. material 1; BPS-Statistics Indonesia 2010). As with Salenrang, Pajukukang experienced a 'shrimp boom' in the mid 1990s during which time rice fields were converted to tambak. While tambak still form an important livelihood for many villagers, the height of the boom has passed, harvests have declined, and chemical inputs and the general cost of maintenance has increased, meaning that some ponds have been abandoned or transitioned to seaweed. This village is also home to seasonal fishermen, whose families migrate seasonally to East Kalimantan during the rainy season on large fishing vessels (known as lambo or pa'gae) (Fig. 3). Pajukukang's proximity to Makassar means that village youth also provide their labour to urban based retail, manufacturing and service industries. Young women in particular travel to the city, sometimes as daily commuters or temporarily residing in boarding homes, to work in factories (often shrimp processing) in the KIMA industrial area. In addition to factory work, and as with Salenrang, women in Pajukukang supplement tambak or fishing-based incomes by peeling the shells off cashews nuts or crabs for local merchants, before they are transported to Makassar for further processing.

While fishing and aquaculture have historically represented the main industries of Pajukukang village (employing 75% of young men, BPS 2010), parents are increasingly encouraging their male children away from these pursuits as the work is too labour intensive and poorly paid. Seasonal fishermen are now bringing back fewer returns as there is greater competition over fishing grounds in Kalimantan, as one young man stated: "*there's not less fish, but more people catching them*" (fisherman, 27, 11/06/2022). Those who choose, or are compelled, to keep fishing are now searching for new fishing grounds, particularly in waters off Central Sulawesi. Furthermore, this form of seasonal migration disrupts education. The children of seasonal fishermen described how they were unable to smoothly transfer to local schools in Kalimantan and as a result missed important educational milestones, such as sitting the exams needed to progress up year levels.

During interviews we heard that coastal youth (women and men) aspire to finish high school and continue with higher levels of education, yet they also noted their reluctance to even articulate these aspirations due to their parent's financial constraints. Like Salenrang, youth from Pajukukang can access junior high school (SMP) within the village, while those able to attend senior high school can do so in nearby Maros (SMA and SMK). Many of these young people aspire for the education needed to secure salaried work, such as coveted jobs in a convenience store (particularly Indomaret and Alfamart). Youth informants noted the air conditioning, regular salary, and the less labour-intensive nature of the work as reasons behind their attraction: "working at Alfamart doesn't require too much energy, it's relaxed, the salary is good, and you work inside" (male fisherman, 20, Pajukukang, 10/01/2021). In addition to retail work, youth explained their aspirations, and for some their multiple failed attempts, to join the civil service, particularly as teachers, police officers and in military roles. While these aspirations are encouraged by teachers and parents, lower levels of education and a lack of social connections means that such civil service and retail jobs are often beyond the reach of youth, and even if they are obtained, they become difficult to sustain in the long term.

In Pajukukang, there is a significant class and gender dimension shaping young people's ability to dream about the future and realise their aspirations. Young people who have limited access to finances, are less educated, or lack social connections are often restricted to work in manufacturing and labouring for plantations in Kalimantan (Table 2). Some of the young people we spoke with also described how they left school to help with their family's poor economic situation or to follow their parents as they worked as seasonal fisher-people. For some of these young people the phrase, "orang tidak mampu" (meaning: "we are poor people"), was frequently articulated. While working at local convenience stores was the preference of many of these young women and men, the reality of available work lies in more precarious, short-term jobs, such as trading in small goods, working in Makassar's industrial zone KIMA (for women), or migrating to Kalimantan (mostly men). One young woman from a family who could not afford higher education articulated that she most aspires to: "Work at Alfamart, but only those who have the money to continue through to high school can, if you have lower levels of schooling you have to go to Kalimantan or to KIMA" (daughter of fishing family, 18 years, Pajukukang, 10/01/2022). However, these jobs can also be extremely labour intensive and one returned labourer working on aquaculture conversions in Kalimantan quoted: "I *couldn't stand it, the work was hard"* (male, 27, Pajukukang, 09/10/2022).

# Pallantikang village: poor agricultural yields, mobility and learning to get by

The uncertainty of agricultural work for young people extends to Pallantikang village, in the peri-urban outskirts or *desakota* of Makassar. In this village, most young people are employed in agriculture (rice and vegetable cultivation), fisheries and aquaculture, followed by trading, construction and transportation work in nearby urban centres (suppl. material 1; BPS-Statistics Indonesia 2010). As with the other villages, Pallantikang has a low percentage of female labour force participation, and many young underage women reportedly enter arranged marriages after completing school. Yet, Pallantikang's proximity to Maros means young people have greater access to affordable senior high schools (SMA and SMK), and the village has lower rates of early school leavers (Table 2).

Pallantikang's rapid agrarian change-as Makassar's urban and industrial development encroaches on once productive farmland—is significantly impacting young people's access to agricultural opportunities. Many of Pallantikang's farmers sold once productive rice fields to allow for both construction of the Trans Sulawesi railway line and the Maros train station. One informant explained the contradictory impact of the railway project on local livelihood activities-he relinquished his land for the 'national good', yet was then employed as a security guard for the same railway development as the purchase price did not provide enough income for his family: "Before the project started, they had offered me only Rp 42,000/m. I asked them 'where else could I get land at that price?' It was productive land. Even though I was hesitant, it was part of the government's plan, and I had to agree." (Male farmer and railway security guard, 42 years, 14/05/2022). As well as subsuming productive land, this infrastructure development is also anecdotally increasing local flood risk (as drainage channels are altered through construction), leading to more frequent crop damage or failure. Pallantikang also suffers prolonged dry periods, which means agriculture is perceived as an increasingly risky and uncertain venture, especially for young people. As one young man who chose to pursue salary-based work over agriculture with the following: "I want to get money quickly. We can only get money from the fields every three or four months and that's if the harvest doesn't fail, because crop failure is unpredictable" (son of rice farmers, 23, Pallantikang, 14/05/22).

To overcome rural vulnerabilities, youth in Pallantikang are therefore highly mobile, seeking salary-based work in nearby urban centres (including convenience stalls, service, manufacturing and retail) or opportunities for trade in the outer islands (Fig. 3). One landowner explained the lack of local opportunities for young people with the following: "the unemployment rate here is high, if young people don't migrate, they will stay unemployed in the village". He then went on to explain that due to irregular rainfall and flood damage 'we can't become overdependent on farming" (Male farmer and railway security guard, 42 years, 14/05/2022). This lack of local village-based opportunities means that circular migration is an important component to young people's livelihoods (both women and men). Many villagers travel regionally and as far as Papua to trade in marketplaces (often clothing, phone credit, food staples, vegetables or fish), work as drivers, labour in plantations (snake fruit) or on fishing boats (Runtuboi et al. 2021). Migrants who leave Pallantikang rely on strong social networks and established trading opportunities, clustering in the cities of Jayapura and Timika. Young people who remain in the village also participate in everyday forms of mobility as daily commuters to Makassar to work in supermarket convenient stores, the service industry, or manufacturing warehouses.

Yet, despite the benefits of migration and everyday rural-urban mobility, young people are increasingly exposed to new forms of livelihood precarity. One young woman working in a button manufacturing warehouse in Makassar explained how she began her job after completing senior high school alongside many of friends who have since left because they: "couldn't stand the hot and dusty work" (female factory worker, 23, Pallantikang, 15/05/2022). These factory jobs demand long working hours and lack stability as salaries fluctuate and employees can be laid off at any time, especially during difficult financial periods such as the COVID19 pandemic (Siburian et al. 2022). Young people who migrate to Papua also described the increased risk of malaria and explained how violence and marketplace burnings have targeted South Sulawesi traders in the past, with many reportedly returning to the village in the early 2000s after a period of such events. Furthermore, despite a strong social network of Buginese villages in Papua, living costs are high and one young man explained how advertised earnings are not always realised (male youth, 29 years, Pallantikang, 17/05/2022).

Paralleling the findings from Pajukukang village, youth aspirations and opportunities in Pallantikang are differentiated by gender and class. Despite higher rates of senior high school completion in this village, few of the young people we interviewed had pursued tertiary education due to financial limitations. One young man explained that even with a university education most young people in his village need to migrate to find work anyway, and that for him it was therefore better to leave school early and "*help my family with their financial situation*" (male youth, 29 years, Pallantikang, 17/05/2022). Yet, youth in Pallantikang are not without aspirations, rather they sometimes lack the means to realise them. One young woman working in manufacturing explained how during junior high school she and her friends all wanted to be "teachers, most of us wanted to be teachers" (female factory worker, 23, Pallantikang, 15/05/2022), and other young men explained the multiple attempts they had unsuccessfully tried to enlist and be recruited by the police or military. As with each of the other three villages, financial independence is viewed as a measure of success, and one young landless father explained: "Being successful means possessing money to buy whatever, to be able to provide for the family" (male trader 28, Pallantikang, 14/05/2022).

# Discussion: youth renegotiating truncated agrarian change

The results presented above indicate that young people renegotiate truncated agrarian change by accessing new livelihood opportunities within, and spatially beyond, the four village sites. Below we discuss and compare the different strategies youth draw on to secure their livelihoods, and the new forms of precarity they encounter along the way.

### Rural youth and livelihood change: farming, aquaculture, fisheries and back again

Across all four villages, our results parallel trends observed elsewhere in Indonesia and Southeast Asia (Leavy and Hossain 2014; Li 2010b; Rigg et al. 2018; Yusuf 2013), where opportunities to acquire land for both young women and men are becoming fewer. In the Maros hinterland (Barugae village), access and use restrictions imposed by the Bantimurung-Bulusaraung National Park have stalled the rejuvenation of shifting candlenut groves, encouraging farmers towards more intensive modes of commodity crop production (ginger, chilli), and limiting young people's access to agricultural production in the process (Mujetahid et al. 2023, see also Dressler et al. 2017 on swidden decline). Likewise, in the peri-urban and transitional landscapes (Pallantikang and Salenrang), the productivity of rice fields is declining, due to flood inundation and the acquisition of productive land for infrastructure development. Here, the sale of land, at below market rates for the Trans Sulawesi railway, while legitimised through discourses of national interest and development (see Hall et al. 2011), may leave affected farmers, and their youthful descendants, without viable livelihood alternatives. Along the coast (Pajukukang), marine and aquaculture-based livelihoods also face declining productivity, and few young people view these industries as economically feasible. Yet, despite these challenges, both young women and men across the landscape expressed a desire to sustain intergenerational farming and aquaculture-based livelihoods. This was particularly so towards the hinterland regions (Barugae and Salenrang), where the peaceful and inexpensive ideals of a rural village life are valorised (see also Chan 2018 and Nooteboom 2019 for similar findings in Java).

For many, the ability to sustain intergenerational farming also depends on the success of urban or migration-based opportunities, reflecting how urban and rural livelihoods, lifestyles and opportunities are increasingly entangled (Gillen et al. 2022; Nooteboom 2019). For the young people who have the opportunity to remain in farming, engaging in more diversified livelihood activities—such as periods of service, retail or factory work in urban centres, on plantation frontiers, or other opportunities abroad—is often still needed to acquire capital and diversify limited smallholder earnings. However, many young people, women and men alike, lack access to adequate land at all, and for these youth, education and entrepreneurial opportunities can provide an alternate, albeit not always secure, livelihood aspiration, as discussed below.

## Education, entrepreneurialism and salaried employment

Across Indonesia, where a generational shift into higher levels of education is occurring (Naafs 2012; Parker and Nilan 2013; Robinson 2016; Naafs and Skelton 2018), many young people view education as a means to secure stable salary-based or even entrepreneurial work. In Maros, finishing senior high school is likewise seen as a necessity for obtaining desirable civil servant, salaried retail work, or mechanical-oriented jobs. However, as with elsewhere in Indonesia, education isn't always the 'golden plough' to realising youth aspirations (Clendenning 2022) and an oversupply of graduates means that social contracts and familial networks are needed to secure jobs, connections which are often beyond the reach of poor and rural youth (White 2020). Furthermore, access to quality education or formal training for youth from poorer households-including those who follow their parents on seasonal fishing ventures or who need to provide an additional household income-may be limited or out of reach entirely.

Despite a significant increase in educational attainment over the past 10 years across the Maros District (BPS-Statistics South Sulawesi 2022a, b), we found that youth continue to face various bottlenecks accessing junior and senior high school education (particularly in the coastal regions) or tertiary studies (across all sites), and connecting education with employment opportunities. As the informants in coastal Pajukukang (where rates of early school leavers are highest due to economic and mobility constraints) explained, those who cannot finish school and lack social connections are destined to migrate to Kalimantan or work in the KIMA industrial zone. Related studies show that even with a senior high school education, youth do not always have the knowledge or connections required to secure salaried positions (Chea and Huijsmans 2018; Punch 2015; Naafs 2018). In Maros, this was evidenced by many of the male youth we spoke with who described frequent failed attempts to enlist with the police force or military and the difficulty some youth had maintaining retail-based work. Across the landscape, responsibilities to family—and their land—was cited as another reason why some young people do not pursue university and choose to remain in, or return to, the village (see also Chan 2018; Nooteboom 2019).

Education can therefore encourage young people to dream big about the future, but it doesn't always deliver on promises or prepare students for today's knowledge economy, especially when it focuses on the promotion of public service jobs, specifically police officers, military, nursing and teaching (Ansell et al. 2020; Clendenning 2022; White 2015). Indeed, the literature describes an abundance of over-skilled working youth in precarious occupations across Indonesia (Naafs 2018; White 2016). A focus on didactic teaching, alongside limited professional and agricultural opportunities in these regions, suggests that many young people are poorly skilled and adjusted for the changing social and economic realities of rural and urban areas (Clendenning 2022; Li 2010b; White 2015, 2016). Yet, our findings show how these aspirations have also been encouraged by some parents who dream that their children will become better educated than they, join the civil service and obtain secure work.

While civil service salaries remain stable and desirable, they are also modest and difficult to acquire, meaning some young people are pulled towards the pursuit of 'entrepreneurial' opportunities instead. Across each of the villages, we found that these pursuits may involve the opening of small automobile workshops, fashion boutiques, trading petty goods on social media platforms or tourism ventures within the village. These activities are pursued by both young women and men and have been encouraged throughout Indonesia, particularly through village revitalization programs (Undang-Undang Desa) (Puspitasari 2015). By developing new local industries, youth are seen to be taking a proactive response to social problems within the village, such as overcoming the lack of agricultural work, while creating opportunities for young people to live and raise their families in the village (Fatchurrohman 2015; Puspitasari 2015), and ultimately take responsibility for their aspirations as part of the 'neoliberal ethos' (Anagnost 2013; Naafs and Skelton 2018). This 'entrepreneurial turn' was particularly evident in the village of Salenrang, where youth have

capitalised on the emerging tourism industry.<sup>9</sup> Yet, for the other sites, fewer opportunities for local entrepreneurialism exist and so young people continue to engage in multiple gendered forms of migration, as described below.

## Multiple forms of mobility: mobility as opportunity or new precarity?

Mobility has long been used as a mechanism to secure alternative livelihoods in rural South Sulawesi, and respondents described how waves of rural out-migration have occurred since the 1960s onwards. The Buginese are colloquially known to be "orang merantau", or those who migrate to pursue economic opportunities (Lineton 1975). Maros' youth (Bugis and Makassar ethnicity alike) engage in multiple forms of trans-local livelihood activities involving seasonal, circular or regional migration pathways, and inter-regional mobility, within and beyond Indonesia (Fig. 3). Our findings show how migration patterns are gendered, and many of Maros' young unskilled women pursue roles as domestic helpers in Saudi Arabia and Malaysia, or commute daily to factories in the KIMA industrial zone of Makassar (for similar gendered migration patterns in Indonesia see Hoang et al. 2012; Hugo 1995; Kelly 2011; Silvey 2000). In contrast, young fit men are more likely to secure jobs harvesting oil palm in plantations, labouring for land conversions, transportation or construction work throughout Sulawesi, the outer islands, or even Malaysia (see also Hoang et al. 2012; Hall 2011; Hugo 1995; Kelly 2011; Li 2017b). Young people, women and men, also travel regionally within Maros and to Makassar city, taking advantage of increased connectivity to access schools, university, labouring jobs, manufacturing work or opportunities as drivers and mechanics. Migration is often facilitated by pre-existing social networks in receiving areas (Akhmad et al. 2022), as is particularly the case for the cohorts of young people who travel to Papua and East Kalimantan.

These varied forms of mobility can support upward class movement, achieved through remittances or savings accumulated as a migrant worker, which are used to purchase land in the village and educate children (see also Khoo and Yeoh 2017; Peluso and Purwanto 2018). Yet, for other young people, particularly unskilled migrants, factory workers, traders, labourers and fishermen, it remains a mere economic necessity, or can even introduce new forms of precarity. Our findings corroborate literature on the exploitation and abuse of Indonesian female domestic workers abroad (Chan 2014; Silvey 2006) and the often-insecure working arrangements of young male and female plantation workers

<sup>&</sup>lt;sup>9</sup> While the long-term success of these ventures remains to be more fully understood, we note some vulnerabilities, such as the impact of COVID19 travel restrictions on the tourism sector in Salenrang.

(Li 2017b; Sinaga 2021). Furthermore, while remittances play an important role in supporting rural economies and altering patterns of female resource control (Elmhirst 2011; Peluso and Purwanto 2018), they can also accelerate off-farm labour orientations and other de-agrarianization trends (Barney 2012; Kelley et al. 2020; Sunam et al. 2021), and leave migrants exposed 'to governmental threats of violence and deportation' (Kelly 2011 p. 495, also Hall 2011 on Indonesian migrants in Malaysia).

Youth mobility-within and beyond-the Maros district likewise introduces new forms of livelihood precarity, especially for young unskilled, financially insecure migrants. For less privileged rural youth, migration comes with the risk of violence, insecure salaries and work conditions, high living costs, and alienation from local educational systems. As noted above, returned migrants who have worked in Kalimantan or Papua explained how some of the advertised jobs in oil palm plantations, hospitality venues and labouring for aquaculture conversions, failed to meet expectations in respect to pay and workload. Other risks of migration include domestic violence faced by female household workers abroad, earthquakes, malaria or targeted marketplace burnings. Children of migrants are also exposed to educational vulnerability, both within and outside of Indonesia, when they are excluded from local schools or required to adapt to new and different school curriculum. Livelihood precarity extends to inter-regional mobility, and while female manufacturing jobs once provided an opportunity for upward class mobility and to rework traditional gender roles (Elmhirst 2002, 2011; Silvey 2000), the industry is increasingly associated with more precarious work conditions. We heard how the young women from fishing families in Pajukukang and Pallantikang who commute to the manufacturing district of Makassar are engaged in insecure working contracts and subjected to abrupt pay cuts in certain financial circumstances (such as during COVID19 restrictions).

In Maros, the benefits and costs of migration therefore vary across geographical location, by gender, class and generation. We found that young unskilled women and men from landless families in the peri-urban and coastal areas are more likely to face new precarity introduced through mobility. For the landowning class, mobility is often tied to higher educational pursuits or to stable professional incomes. Yet, for the less educated, and landless families in peri-urban and coastal areas, many young women and men depend on inter-regional mobility and circular migration to secure their futures. These findings differ from the experiences of the older generation (31 years and above), who during interviews reported how migration was often tied to more tangible upwards class mobility.

Mobility and immobility are also intertwined with young people's broader social and family life aspirations. Across each village, most youth described 'success' as financial independence and the ability to support their family and care for those in need. Mobility-whether as a daily commuter, tertiary student in Makassar, labourer in the outer island, or domestic helper abroad—is for many a necessary step towards one day realising this financial independence. For the fortunate few, mobility also provides a means to eventually secure land or resources in the village and independently accrue the finances needed to marry. Yet, while youth leave to seek economic independence, they also return when familial responsibilities demand (i.e., to care for parents or raise children, see also Naafs 2018), and this was observed irrespective of gender and class dynamics. However, these findings focus on the experiences of returned migrants across Maros only and omits the stories of rural villagers who have chosen to settle permanently in the outer islands or abroad, which remains an important area for future research.

#### Conclusion

Our findings demonstrate how many young people in the Maros District renegotiate processes of incomplete or truncated agrarian change to secure meaningful livelihood opportunities (Li 2011; Rigg et al. 2018). In the Maros District, declining smallholder yields and fish-catches, the boom-andbust cycle of aquaculture, land enclosures and reduced opportunities for land ownership are fuelling an aspirational shift in young people towards more modern, stable and salary-based opportunities that provide financial security and independence. However, while these aspirations often depend on higher levels of education, education does not always deliver on its promises. Even with a degree or senior high school diploma, professional wage labour, or even stable local retail work, is increasingly difficult to find. In their quest for new opportunities and financial independence, youth therefore turn to mobility and multi-local livelihoods across rural and urban spaces, regionally, nationally and internationally. Yet, these changing aspirations do not equate with the complete disassociation from the farm, and many young people's livelihoods are entangled with rural agrarian or aquaculture-based livelihoods. Land ownership and rural lifestyles remain an aspiration for many young people, and some youth with land and assets in the village choose to return when the lure of village life or familial responsibilities call. For the less financially privileged or educated, securing a rural future is increasingly dependent on mobility, or the success of 'entrepreneurial' activities.

These findings demonstrate how youth rework uncertain economic circumstances to create new opportunities, albeit dependent on aspects of social differentiation (especially class and gender). Increased mobility overcomes some rural vulnerabilities, yet it also introduces new forms of livelihood precarity, particularly for young unskilled women, youth from landless households, and those with low educational attainment who lack social connections. Youth from families with small or limited land holdings, education, financial means, or 'insider' social connections therefore rely on more risky and insecure forms of mobility to secure work (often to the outer islands of Indonesia—especially Kalimantan and Papua—or abroad).

Indonesia's rural youth aspire to find modern salaried work, to be entrepreneurial, and financially secure, without permanently disassociating themselves from rural village life or agrarian based livelihoods. This conclusion underscores the importance of village place-based studies conducted over a landscape continuum (from the peri-urban, coastal, rural and hinterland), and challenges assumptions that youth are uninterested in rural futures. We find a lack of access to secure and profitable land resources, rather than interest alone, plays a significant role in driving young people's aspirations away from the farm. Mobility is not a panacea to rural livelihood vulnerability, especially given the ongoing conditions of gender and class based precarity (including domestic violence, malaria, earthquakes, labour intensive work, insecure contracts, unstable salaries, high living costs, and risks of deportation) that youth encounter along the way. We argue that further work should pay greater attention to the enduring precarity that follows youth as they move across spatial locations and in out of different sectors, while advocating for quality local education and more equitable access to agrarian based opportunities for the young people who choose to remain in the village.

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### References

Akhmad, F., A. Utomo, and W. Dressler. 2022. From farm to the city? Understanding the motives of entrepreneurial Javanese migration to an Indonesian outer island. *Migration Studies* 10 (4): 722–745.

- Ambarwati, A., I. Sadoko, C. Chazali, and B. White. 2016. Pemuda dan pertanian di Indonesia. Jurnal Analisa Sosial 20 (1–2): 1–22.
- Anagnost, A. 2013. Introduction: Life-making in neoliberal times. In Global Futures in East Asia: Youth, Nation and the New Economy in Uncertain Times, ed. A. Anagnost, A. Arai, and H. Ren, 1–28. California: Stanford University Press.
- Ansell, N., P. Froerer, R. Huijsmans, C.E. Dungey, A.C. Dost, and Piti. 2020. Educating 'surplus population': Uses and abuses of aspiration in the rural peripheries of a globalising world. *Fennia* 198 (1–2): 17–38.
- Aprilia, A., C.P. Nugroho, and R. Mutisari. 2019. Preference of rural youth livelihood in Indonesian rural areas and its factors. *Habitat* 30 (3): 88–95.
- Barney, K. 2012. Land, livelihoods and remittances. *Critical Asian Studies* 44 (1): 57–83.
- Baird, I.G. 2022. The problem of the urban–rural binary in geography and political ecology. *Dialogues in Human Geography* 12 (2): 218–222.
- Batiran, K., N. Sirimorok, B. Verheijen, M.R. Fisher, and M.A.K. Sahide. 2021. Creating commons: Reflections on creating natural resource management regimes in South Sulawesi, Indonesia. *Forest and Society* 5 (2): 619–630.
- Belton, B., and S.R. Bush. 2014. Beyond net deficits: New priorities for an aquacultural geography. *The Geographical Journal* 180 (1): 3–14.
- BPS-statistics Indonesia. 2010. Indonesia 2010 census data. https:// www.bps.go.id/publication/2010/12/23/b0adeb45e05c3db10ac9 9f33/statistik-indonesia-2010.html.
- BPS-Statistics Maros Regency. 2021. Table 4.1.1.2 Percentage of literate people aged 15 years and over by age group in Maros Regency, 2018 and 2019 in *Maros Regency in Figures*, 2020. https://ppid. maroskab.go.id/assets/dokumen/7e2d4c3cd1fa15855d10718cc b556c30.pdf. Accessed 18 June 2023.
- BPS-Statistics South Sulawesi. 2022a. Average length of time spent in school (year), 2020–2022a. https://sulsel.bps.go.id/indicator/26/ 299/1/rata-rata-lama-sekolah-rls-.html. Accessed 18 June 2023.
- BPS-Statistics South Sulawesi. 2022b. School participation rate for the population aged 17–24 years by district (year), 2020–2022b. https://sulsel.bps.go.id/indicator/28/1886/1/angka-partisipasisekolah-aps-penduduk-usia-17-24-tahun-menurut-kabupatenkota.html. Accessed 18 June 2023.
- Chan, C. 2014. Gendered morality and development narratives: The case of female labor migration from Indonesia. *Sustainability* 6: 6949–6972.
- Chan, C. 2018. In Sickness and in Wealth: Migration, Gendered Morality, and Central Java. Bloomington: Indiana University Press.
- Chea, L., and R. Huijsmans. 2018. Rural youth and urban-based vocational training: Gender, space and aspiring to 'become someone.' *Children's Geographies* 16 (1): 39–52.
- Clendenning, J. 2019. Approaching rural young people. Background report for the CGIAR research program on forests, trees and agroforestry's gender equality and social inclusion strategy. Research report submitted to CGIAR, research program on forest, trees and agroforestry. June, 2019. https://www.cifor.org/knowledge/publi cation/7383/. Accessed 18 June 2023.
- Clendenning, J. 2022. Between the village and the city: The inbetweenness of rural young people in East Indonesia. *International Development Planning Review* 45 (1): 19–40.
- De Koninck, R. 2004. The challenges of the agrarian transition in Southeast Asia. *Labour, Capital and Society* 37: 285–288.
- Dressler, W., and J. Pulhin. 2010. The shifting ground of swidden agriculture on Palawan Island, the Philippines. *Agriculture and Human Values* 27 (4): 445–459.
- Dressler, W.H., D. Wilson, J. Clendenning, R. Cramb, R. Keenan, S. Mahanty, T.B. Bruun, O. Mertz, and R.D. Lasco. 2017. The impact of swidden decline on livelihoods and ecosystem services

in Southeast Asia: A review of the evidence from 1990 to 2015. *Ambio* 46: 291–310.

- Elmhirst, R. 2002. Daughters and displacement: Migration dynamics in an Indonesian transmigration area. *Journal of Development Studies* 38 (5): 143–166.
- Elmhirst, R. 2011. Migrant pathways to resource access in Lampung's political forest: Gender, citizenship and creative conjugality. *Geoforum* 42 (2): 173–183.
- Elmhirst, R. 2012. Displacement, resettlement, and multi-local livelihoods: Positioning migrant legitimacy in Lampung, Indonesia. *Critical Asian Studies* 44 (1): 131–152.
- Fabinyi, M., B. Belton, W.H. Dressler, M. Knudsen, S.D. Adhuri, A.A. Aziz, M.A. Akber, J. Kittitornkool, C. Kongkaew, M. Marschke, M. Pido, N. Stacey, D.J. Steenbergen, and P. Vandergeest. 2022. Coastal transitions: Small-scale fisheries, livelihoods, and maritime zone developments in Southeast Asia. *Journal of Rural Studies* 91: 184–194.
- Fatchurrohman, L.N. 2015. Institutional entrepreneurship pemuda dalam mengembangkan pokdarwis desa wisata Nglanggeran. *Jurnal Studi Pemuda* 4 (2): 281–295.
- Gillen, J., T. Bunnell, and J. Rigg. 2022. Geographies of ruralization. Dialogues in Human Geography 12 (2): 186–203.
- Hall, D. 2011. Where the streets are paved with prawns: Crop booms and migration in Southeast Asia. *Critical Asian Studies* 43 (4): 507–530.
- Hall, D., P. Hirsch, and T.M. Li. 2011. Powers of Exclusion: Land Dilemmas in Southeast Asia. Singapore: NUS press.
- Herrawan, H., N. Sirimorok, M. Nursaputra, E.I. Mas'ud, F. Faturachmat, A. Sadapotto, S. Supratman, Y. Yusran, and M.A.K. Sahide. 2022. Commoning the state forest: Crafting commons through an Indonesian social forestry program. *Forest and Society* 6 (1): 20–39.
- Hoang, L.A., B.S.A. Yeoh, and A.M. Wattie. 2012. Transnational labour migration and the politics of care in the Southeast Asian family. *Geoforum* 43 (4): 733–740.
- Hopkins, P. 2019. Social geography I: Intersectionality. *Progress in Human Geography* 43 (5): 937–947.
- Hugo, G.J. 1982. Circular migration in Indonesia. *Population and Development Review* 8 (1): 59–83.
- Hugo, G. 1995. International labour migration and the family: Some observations from Indonesia. *Asian and Pacific Migration Journal* 4 (2–3): 273–301.
- Huijsmans, R. 2016. Generationing Development: A Relational Approach to Children, Youth and Development. London: Palgrave Macmillan.
- Huijsmans, R., A. Ambarwati, C. Chazali, and M. Vijayabaskar. 2021. Farming, gender and aspirations across young people's life course: Attempting to keep things open while becoming a farmer. *The European Journal of Development Research* 33: 71–88.
- Iswanto, S., N. Nurasiah, T. Kusnafizal, M. Haikal, Z. Zulfan, A. Azis, and R. Ramazan. 2022. Management, exploitation and contract labor of the pine merkusi forest in Tanah Gayo during the Dutch colonial period. *Forest and Society* 6 (2): 699–722.
- Iswara, M.A. 2020. A land without farmers, Indonesia's agricultural conundrum. https://www.thejakartapost.com/longform/2020/08/ 13/a-land-without-farmers-indonesias-agricultural-conundrum. html. Jakarta Post 8 Aug 2020.
- Jeffrey, C., and J. Dyson. 2021. Active partners: Rethinking the educated unemployed in India. In *Routledge Handbook of Education in India: Debates, Practices, and Policies*, ed. K. Kumar, 295–304. London: Routledge.
- Kelly, P.F. 2011. Migration, agrarian transition, and rural change in Southeast Asia. *Critical Asian Studies* 43 (4): 479–506.
- Kelley, L.C., N.L. Peluso, K.M. Carlson, and S. Afiff. 2020. Circular labor migration and land-livelihood dynamics in Southeast Asia's concession landscapes. *Journal of Rural Studies* 73: 21–33.

- Khoo, C.Y., and B.S.A. Yeoh. 2017. Responsible adults-in-themaking: Intergenerational impact of parental migration on Indonesian young women's aspirational capacity. *Geoforum* 85: 280–289.
- Koning, J. 2005. The impossible return? The post-migration narratives of young women in rural Java. Asian Journal of Social Science 33 (2): 165–185.
- Leavy, J. and N. Hossain, 2014. Who wants to farm? Youth aspirations, opportunities and rising food prices. IDS working paper, 2014: 439. https://policy-practice.oxfam.org/resources/who-wants-tofarm-youth-aspirations-opportunities-and-rising-food-prices-315686/. Accessed 18 June 2023.
- Li, T.M. 2010a. Agrarian class formation in upland Sulawesi, 1990– 2010b. ChATSEA working paper, Université de Montréal. ISSN 1919-0581. https://tspace.library.utoronto.ca/bitstream/1807/ 72658/1/ChATSEA-WP-9-Li.pdf. Accessed 18 June 2023.
- Li, T.M. 2010. To make live or let die? Rural dispossession and the protection of the surplus population. *Antipode* 41 (s1): 66–93.
- Li, T.M. 2011. Centering labor in the land grab debate. *The Journal of Peasant Studies* 38 (2): 281–298.
- Li, T.M. 2017a. After development: Surplus population and the politics of entitlement. *Development and Change* 48: 1247–1261.
- Li, T.M. 2017b. Intergenerational displacement in Indonesia's oil palm plantation zone. *The Journal of Peasant Studies* 44 (6): 1158–1176.
- Lineton, P. 1975. Pasompe' Ugi': Bugis migrants and wanderers. Archipel 10: 173–201.
- Lindquist, J. 2010. Labour recruitment, circuits of capital and gendered mobility: Reconceptualizing the Indonesian migration industry. *Pacific Affairs* 83 (1): 115–132.
- Malamassam, M.A. 2016. Youth migration in Indonesia: Decision to move and to choose destination areas. *Indonesian Journal of Geography* 48 (1): 62–71.
- McCarthy, J.F. 2020. The paradox of progressing sideways: Food poverty and livelihood change in the rice lands of outer island Indonesia. *The Journal of Peasant Studies* 47 (5): 1077–1097.
- McGee, T. 2002. Reconstructing the Southeast Asian city in an era of volatile globalization. *Asian Journal of Social Science* 30 (1): 8–27.
- Mujetahid, A., N. Sirimorok, A.V.F. Muin, F. Faturachmat, S. Supratman, M. Alam, E.I Mas'ud. Nursaputra, C. Griffin, M. Fisher, M.A.K. Sahide, T. Toumbourou, V. Dressler, et al. 2023. On the demise of *Makkalice*: Conservation enclosure and the loss of a wealth-redistributing harvest system in South Sulawesi, Indonesia. *Human Ecology*. https://doi.org/10.1007/s10745-023-00421-0.
- Murniati, M., S. Suharti, I. Yeny, and M. Minarningsih. 2022. Cacaobased agroforestry in conservation forest area: Farmer participation, main commodities and its contribution to the local production and economy. *Forest and Society* 6 (1): 243–274.
- Naafs, S. 2012. Navigating school to work transitions in an Indonesian industrial town: Young women in Cilegon. *The Asia Pacific Journal of Anthropology* 13 (1): 49–63.
- Naafs, S. 2018. Youth aspirations and employment in provincial Indonesia: A view from the lower middle classes. *Children's Geographies* 16 (1): 53–65.
- Naafs, S., and T. Skelton. 2018. Youthful futures? Aspirations, education and employment in Asia. *Children's Geographies* 16 (1): 1–14.
- Nooteboom, G. 2019. Understanding the nature of rural change: The benefits of migration and the (re)creation of precarity for men and women in rural Central Java, Indonesia. *TRaNS Trans—Regional and—National Studies of Southeast Asia* 7 (1): 113–133.
- Nugraha, Y.A. and Herawati, R. 2014. Menguak realitas orang muda sektor pertanian di perdesaan. Bandung: Seri Penelitian Akatiga. https://www.neliti.com/publications/458/menguak-realitas-orangmuda-sektor-pertanian-di-perdesaan. Accessed 18 June 2023.

Park, C.M.Y., and B. White. 2017. Gender and generation in Southeast Asian agro-commodity booms. *The Journal of Peasant Studies* 44 (6): 1103–1110.

- Parker, L., and P. Nilan. 2013. Adolescents in Contemporary Indonesia. USA: Routledge.
- Pardede, E.L., and C.H. Mulder. 2022. The roles of family resources and family structure in moving from the parental home and village among young Indonesians. *Population, Space and Place* 28 (1): e2535.
- Peluso, N.L. 2017. Plantations and mines: Resource frontiers and the politics of the smallholder slot. *The Journal of Peasant Studies* 44 (4): 834–869.
- Peluso, N.L., and A.B. Purwanto. 2018. The remittance forest: Turning mobile labor into agrarian capital. *Singapore Journal of Tropical Geography* 39 (1): 6–36.
- Porter, G., K. Hampshire, M. Mashiri, S. Dube, and G. Maponya. 2010. 'Youthscapes' and escapes in rural Africa: Education, mobility and livelihood trajectories for young people in Eastern Cape, South Africa. *Journal of International Development* 22: 1090–1101.
- Punch, S. 2015. Youth transitions and migration: Negotiated and constrained interdependencies within and across generations. *Journal* of Youth Studies 18 (2): 262–276.
- Puspitasari, D.C. 2015. Wirausaha muda membangun desa: Dinamika partisipasi pembangunan desa. Jurnal Studi Pemuda 4 (2): 330–341.
- Rigg, J. 2006. Land, farming, livelihoods, and poverty: Rethinking the links in the rural South. World Development 34 (1): 180–202.
- Rigg, J., M. Phongsiri, B. Promphakping, A. Salamanca, and M. Sripun. 2020. Who will tend the farm? Interrogating the ageing Asian farmer. *The Journal of Peasant Studies* 47 (2): 306–325.
- Rigg, J., A. Salamanca, M. Phongsiri, and M. Sripun. 2018. More farmers, less farming? Understanding the truncated agrarian transition in Thailand. *World Development* 107: 327–337.
- Rigg, J., A. Salamanca, and C. Thompson. 2016. The puzzle of East and Southeast Asia's persistent smallholder. *Journal of Rural Studies* 43: 118–133.
- Robinson, K. 2016. Educational aspirations and inter-generational relations in Sorowako. In *Youth Identities and Social Transformations in Modern Indonesia*, ed. K. Robinson, 69–90. Leiden: Brill Publishing.
- Rosario, T.C.-D., and J. Rigg. 2019. Living in an age of precarity in 21st Century Asia. *Journal of Contemporary Asia* 49 (4): 517–527.
- Runtuboi, Y.Y., D.B. Permadi, M.A.K. Sahide, and A. Maryudi. 2021. Oil palm plantations, forest conservation and indigenous peoples in West Papua Province: What lies ahead? *Forest and Society* 5 (1): 23–31.
- Salim, W., and S.D. Negara. 2018. Infrastructure development under the Jokowi administration: Progress, challenges and policies. *Journal of Southeast Asian Economies* 35 (3): 386–401.
- Siburian, R., D. Rachmawan, and F.H. Tondo. 2022. Covid-19 and forest communities: Alignment and challenges on case studies in forest community, Pemalang, Indonesia. *Forest and Society* 6 (1): 275–293.
- Silvey, R.M. 2000. Stigmatized spaces: Gender and mobility under crisis in South Sulawesi, Indonesia. *Gender, Place & Culture* 7 (2): 143–161.
- Silvey, R.M. 2006. Consuming the transnational family: Indonesian migrant domestic workers to Saudi Arabia. *Global Networks* 6 (1): 23–40.
- Silvey, R.M., and R. Elmhirst. 2004. Engendering social capital: Women workers and rural-urban networks in Indonesia's crisis. *World Development* 31 (5): 865–879.
- Sinaga, H. 2021. Buruh Siluman: The making and maintaining of cheap and disciplined labour on oil palm plantations in

Indonesia. In *Bioeconomy and Global Inequalities*, ed. M. Backhouse, et al., 175–193. Switzerland: Palgrave Macmillan.

- Standing, G. 2011. *The Precariat: The New Dangerous Class*. London: Bloomsbury Academic.
- Sunam, R., K. Barney, and J. McCarthy. 2021. Transnational labour migration and livelihoods in Asia: Tracing patterns of agrarian and forest change. *Geoforum* 118: 1–13.
- Toumbourou, T.D., W.H. Dressler, A. Sanders, E. Liu, T. Brown, and A. Utomo. 2023. Who are the future farmers? Media representations of youth in agriculture, food security and 'modern' farming in Indonesia. Asia Pacific Viewpoint. https://doi.org/ 10.1111/apv.12374.
- Tualle, M.D., A. Mujetahid, M. Dassir, N. Sirimorok, A.K. Muhammad, A.V.F. Muin, and A.D. Prasetyo. 2023. Living through crises due to successive commodity booms and busts: Investigating the changing peasants' farming style in rural Indonesia. *Forest and Society* 7 (1): 95–115.
- Utomo, A., A. Reimondos, I.D. Utomo, P. McDonald, and T. Hull. 2013. Female migrants and the transition to adulthood in Greater Jakarta. *The Annals of the American Academy of Politi*cal and Social Science 648 (1): 70–86.
- White, B. 2015. Generational dynamics in agriculture: Reflections on rural youth and farming futures. *Cahiers Agricultures* 24 (6): 330–334.
- White, B. 2016. Generation and social change, Indonesian youth in comparative perspective. In *Youth Identities and Social Transformations in Modern Indonesia*, Robinson, K. ed, 1–22. Verhandelingen van het Koninklijk Instituut voor Taal-, Land- en Volkenkunde.
- White, B. 2020. *Agriculture and the Generation Problem*. Rugby England: Practical Action Publishing.
- White, B. 2021. Human capital theory and the defectology of aspirations in policy research on rural youth. *The European Journal* of Development Research 33 (6): 54–70.
- White, B. and Margiyatin, C.U. 2016. Teenage experiences of school, work, and life in a Javanese village. In *Youth Identities and Social Transformations in Modern Indonesia* in Robinson, K. ed, 47–68. Verhandelingen van het Koninklijk Instituut voor Taal-, Land- en Volkenkunde.
- Yusuf, M. 2013. Transisi agraria dan ketenagakerjaan pedesaan: Studi kasus akuisisi (perampasan) tanah untuk pangan-energi dan peluang berkerja pemuda di pedesaan Indonesia. Jurnal Studi Pemuda 2 (1): 45–62.
- Yuval-Davis, N. 2006. Intersectionality and feminist politics. European Journal of Women's Studies 13 (3): 193–209.

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