

# Can urban growth reduce rural underemployment?

Joachim De Weerd and Hanne Van Cappellen

In a recent IFPRI working paper, Van Cappellen and De Weerd (2023), we show how urban growth reduces underemployment in the rural hinterlands of towns and cities. But leveraging these labor market linkages between urban and rural areas for inclusive growth and poverty reduction will depend on overcoming two barriers. The first is that the jobs created are primarily low-skill, low-productivity, and often casual (*ganyu*). Raising the human capital and productivity of the continually growing pool of rural workers, while simultaneously raising rural incomes to increase demand for the kind of off-farm goods and services they can provide, will be critical. Secondly, the labor market linkages between urban and rural areas operate primarily through the longer-established urban areas. Growth in Malawi's newer emerging urban centers, while substantial, has not spilled over to rural labor markets yet. This is a missed opportunity and highlights the need for a geographically expansive urban investment strategy that includes fostering growth, agglomeration economies, and strong urban-rural linkages in Malawi's smaller urban areas. Anchoring the development of smaller urban agglomerations in modernizing value chains, particularly in the agri-food sector, is one practical pathway for leveraging urbanization for inclusive development.

## Types of rural jobs

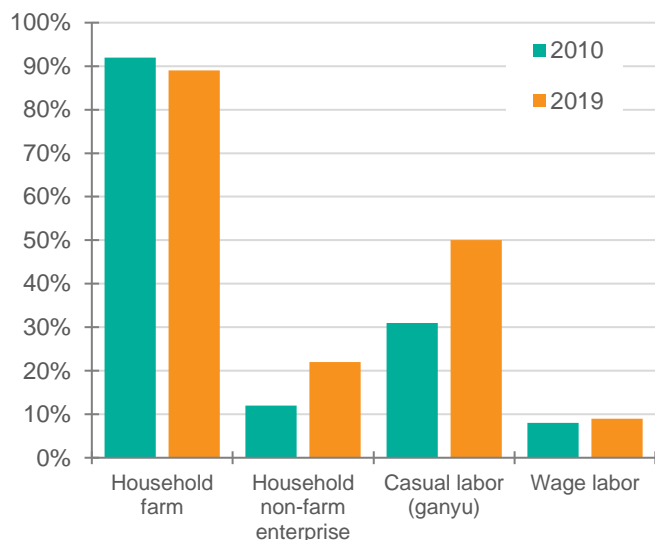
Rural labor markets in Malawi are complex and diverse, which makes the task of characterizing them and describing how they have changed over time challenging. Fortunately, Malawi's Integrated Household Panel Survey (IHPS) contains excellent longitudinal data on income-generating activities for around 1,400 rural working-age adults. For each of these individuals, each panel survey round provides detailed labor data on four types of rural income-generating activities:

- (i) labor on the household's own farm
- (ii) labor in the household's own off-farm enterprise(s)
- (iii) labor for others as a casual laborer, locally known as *ganyu*, and
- (iv) labor for others in longer-term wage employment.

Together they span all income-generating activities.<sup>1</sup> Because interviews were conducted in 2010 and 2019, we can track changes in rural labor patterns over roughly a decade for each surveyed individual.<sup>2</sup>

In Figure 1 we show how the type of employment that rural Malawians engage in has changed over the period from 2010 to 2019. The share of people working on the household farm decreased slightly, while the share of people working in *ganyu* and on non-farm enterprises increased significantly. The percentage of people who have a wage job also increased slightly.

**Figure 1. Participation of rural workers in Malawi in different types of jobs, 2010 and 2019**



Source: Own calculations based on IHPS.

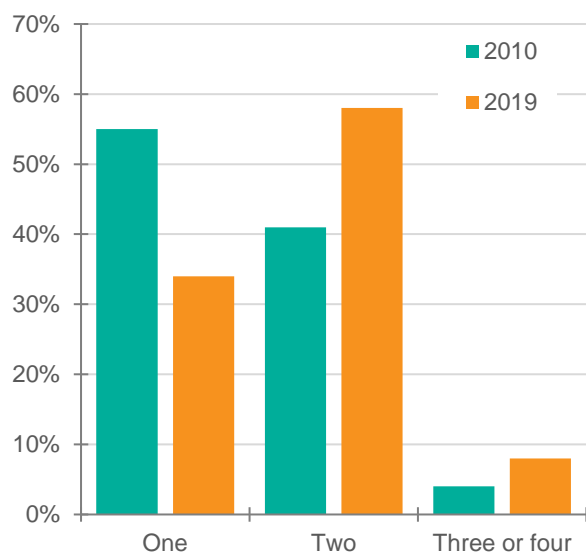
Note: Sample restricted to 1,407 rural adults who were not in school and aged between 15 and 65 years in both rounds.

Many rural workers do not just engage in one type of job but combine several jobs often from different employment categories. Figure 2 shows a trend towards holding more than one type of job unfolded over the decade studied. The number of people working in one employment category only decreased from 55 to 34 percent between 2010 and 2019, while those combining jobs in two or more categories increased from 45 to 66 percent. By 2019, 8 percent of rural working-age adults were combining jobs across three or four employment categories.

<sup>1</sup> Due to data limitations we, unfortunately, have to exclude the production of home goods, for which no payment is received, such as firewood and water collection or housework. This is an important limitation of our study.

<sup>2</sup> The survey periods were 2010/11 and 2019/20, but as most respondents reported their labor allocation in 2010 and 2019, we simply refer to 2010 and 2019.

**Figure 2. Number of employment categories in which rural workers worked, 2010 and 2019**



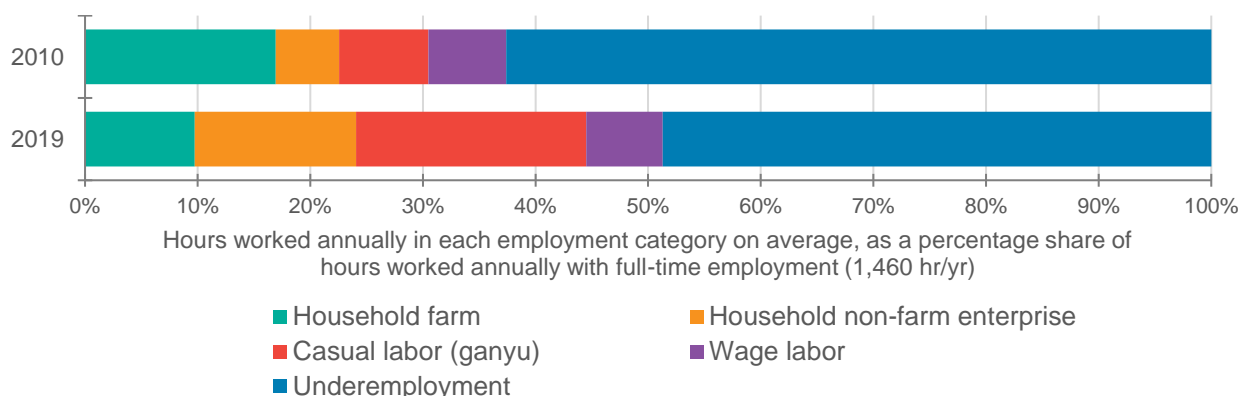
Source: Own calculations based on IHPS.

Note: Sample restricted to 1,407 rural adults who were not in school and aged between 15 and 65 years in both rounds.

## Rural underemployment

IHPS collects data on the total annual hours spent working in each employment category, which we can use to determine rural underemployment rates and how they have evolved between 2010 and 2019.<sup>3</sup> Figure 3 shows that rural working-age adults on average worked 51 percent of a full-time job in 2019, up from 38 percent in 2010. Underlying these numbers are highly seasonal working patterns, with peaks and troughs in hours worked dictated largely by the agricultural calendar.

**Figure 3. Underemployment among rural workers in Malawi, 2010 and 2019**



Source: Own calculations based on IHPS.

Note: Sample restricted to 1,407 rural adults who were not in school and aged between 15 and 65 years in both rounds.

Figure 3 also gives insights into the changing employment patterns between 2010 and 2019, highlighting a sharp decrease, from 17 to 10 percent, in the share of full-time work dedicated to household farming. This decline is compensated for by a pronounced increase in hours worked in *ganyu*, from an 8 percent to a 21 percent share of full-time work. By 2019, *ganyu* has overtaken work on the household farm as the most important activity for the average rural working-age adult. Another

<sup>3</sup> To be internally consistent, we calculate expected hours worked in full-time employment from the same IHPS data. More specifically, in the pooled sample we calculate that individuals engaged in formal wage employment work 1,460 hours per year. We use this number as the base for the percentages given in Figure 3 and Figure 4.

notable trend is the increase in hours worked in non-farm enterprises from a 6 percent to a 14 percent share of full-time work. Unfortunately, average hours worked in the most financially rewarding and stable type of income-generating activity, wage labor, has stagnated at a 7 percent share of full-time work.

As mentioned, there has been an increasing trend among rural workers in Malawi towards combining different types of jobs. In 2019, around two-thirds of rural working-age adults reported working jobs in two different employment categories over the past year, while that number was 41 percent in 2010. Figure 4 lists the most popular combinations of job types and presents two statistics for each: the percentage of people reporting that combination in 2010 and 2019, and, for those reporting the combination, the total number of working hours as a share of full employment.

A first striking finding is that in 2010, 51 percent of the rural working-age adults were only providing labor on the household farm and not complementing this activity with work in a household off-farm enterprise, with *ganyu*, or with wage labor. A decade later, however, only 27 percent of individuals report working on the household farm as their sole activity. The most popular livelihood choice in 2019 was a combination of work on the household farm with *ganyu*. The third most prevalent in both years is working on the household farm in combination with working in a non-farm enterprise of the household, with a sharp increase between 2010 and 2019 in the share of workers choosing this combination from 10 percent in 2010 to 19 percent in 2019. All other popular livelihood combinations were smaller and maintained a stable share of rural working-age adults across the two survey years.

Figure 4 also shows that, perhaps unsurprisingly, the few people engaging in rural wage employment do not suffer underemployment. An interesting trend can be seen for people working in an off-farm enterprise of their household, either as a sole activity or in combination with farming or *ganyu*—a sizeable jump is seen in the hours worked, reaching 100, 90, and 88 percent of full-time working hours, respectively. That more people are working in a household non-farm enterprise and that it absorbs a larger number of working hours suggests that such employment is becoming an important livelihood strategy among Malawian households and a possible entry-point for policies and programs intending to support the off-farm sector in Malawi.

In 2019, people who only rely on household farming work on average only 10 percent of full-time working hours, while those who add *ganyu* to household farming reach employment levels that are 60 percent of full-time working hours—only slightly above those relying solely on *ganyu*, who work 57 percent of full-time working hours. Clearly, opportunities for full-time employment with *ganyu* and household farm work, by themselves or in combination with each other, are limited. Only by adding wage employment or household off-farm enterprises to the mix does underemployment go down.

Figure 3 shows how between 2010 and 2019 *ganyu* increasingly came to dominate the portfolio of income-generating activities that rural working-age adults adopt. Unfortunately, *ganyu* typically comes with low pay and low security. It pays less than a third of earnings in household off-farm enterprises or wage employment (Caruso & Cardona, 2022). People who work in *ganyu* are twice disadvantaged in that they do not manage to have full-working schedules, while at the same time suffering from low pay per hour worked.

**Figure 4. Common job type combinations and underemployment among rural workers, 2010 and 2019**



Source: Own calculations based on IHPS.

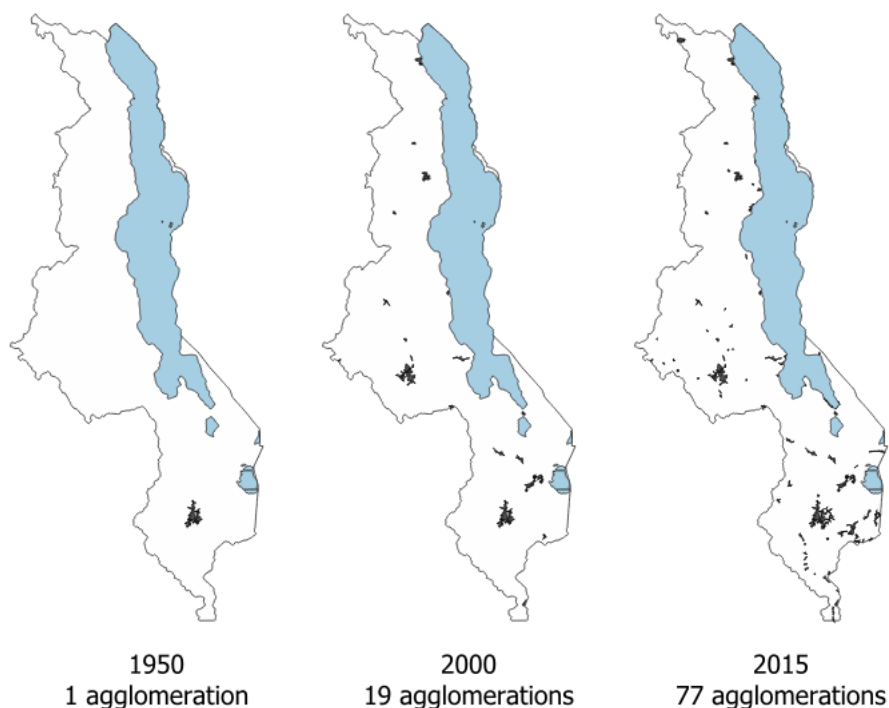
Note: Sample restricted to 1,407 rural adults who were not in school and aged between 15 and 65 years in both rounds. Only the seven most common livelihood combinations are shown.

## Urban growth

With an official urbanization rate of only 16 percent and just four official cities, Malawi is one of the least urbanized countries in Africa. At the same time, it is also one of the fastest urbanizing countries on the continent. Remotely sensed data show that the number of urban agglomerations with at least 10,000 inhabitants increased exponentially from just one in 1950 to 77 in 2015 (Figure 5) (Africapolis, 2022). This suggests that currently about one-third of Malawi's population lives in agglomerations of over 10,000 people, which could reasonably be considered urban. Lilongwe and Blantyre, both with about one million inhabitants, make up 45 percent of Malawi's urban population, while several dozen smaller urban agglomerations with populations up to around 100,000 make up 41 percent. Squeezed in the middle of this bimodal population distribution lie the cities of Zomba and Mzuzu, with 284,000 and 236,000 inhabitants, respectively (Africapolis, 2022).<sup>4</sup>

<sup>4</sup> These are population numbers within the remotely sensed urban boundaries, which differ from administrative boundaries.

**Figure 5. Growth of urban agglomerations in Malawi, 1950-2015**



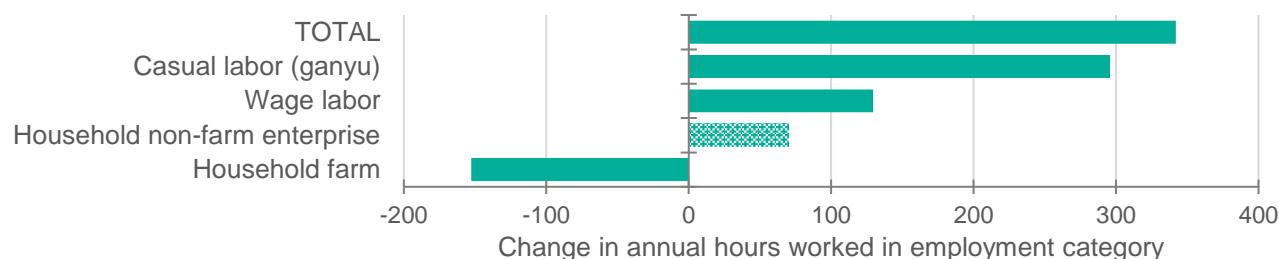
Source: Own visualization of data from Africapolis (2022).

### Urban growth reduces rural underemployment...

To measure the connectedness of rural areas with urban centers, we created an urban access variable. The urban access of a specific rural location is the sum of the population of each urban agglomeration discounted by its distance to the rural area in question. In this way, both distance and size are factored into the urban access variable: larger agglomerations provide more urban access than smaller agglomerations, but the urban access weight decreases the further away a rural location is from towns or cities.

To measure the effect of increasing urban access on rural workers, we measure the effect of the change in urban access between 2010 and 2019 on the hours they worked annually. We find that people living in rural areas with expanded urban access supply more hours of work. A median increase (32 percent) in urban access is associated with 43 days of extra work, annually. Figure 6 shows the effect of the median increase in urban access between 2010 and 2019 for rural workers in Malawi on yearly hours worked, broken down by employment category.

**Figure 6. Increase in annual hours worked by rural workers as a result of a median increase in urban access between 2010 and 2019**



Source: Own calculations based on the IHPS and Africapolis.

Note: Sample restricted to 1,407 rural adults who were not in school and aged between 15 and 65 years in both rounds. The change in annual hours spent working on jobs in the household non-farm enterprise employment category statistically is not significantly different from zero, so the bar is stippled.

### ... but too often in the wrong jobs

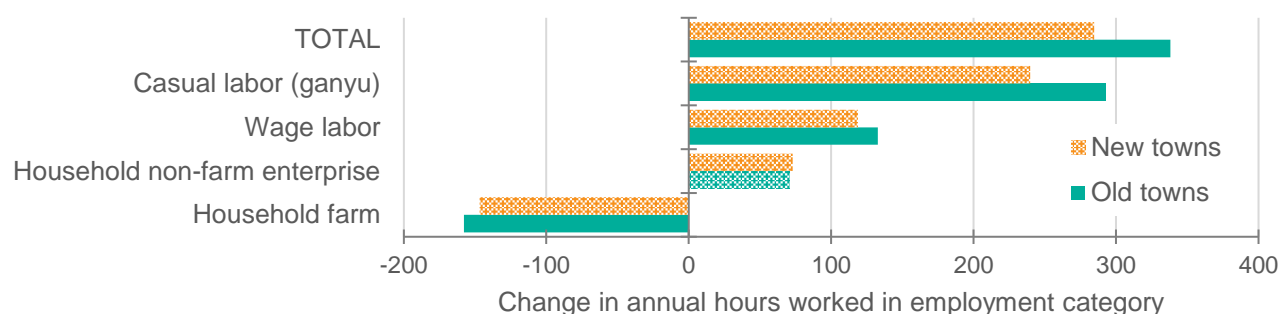
That underemployed individuals can provide more hours of work is encouraging, but, unfortunately, the main driver of the effect is an increase in hours of casual work (*ganyu*). The positive effect of urbanization on total hours worked comes both from *ganyu* as well as wage labor. A median increase in urban access increases hours worked annually in *ganyu* by 295 hours, and in wage labor by 129 hours. The equivalent average effect on hours worked in household non-farm enterprises is positive, but smaller still at 70 annual hours of extra work. It is, however, imprecisely measured—the stippled bar in Figure 6 indicates that the estimated change in hours worked statistically is indistinguishable from zero.

However, increasing urban access has a negative effect on hours worked on the household farm. An individual who experiences a median increase in urban access, on average, will work 153 hours per year less on their household farm. This reduction in own-farm work is also worrying, because, although it is more than made up for by increasing hours of work in other categories of employment, it is still happening in a context of significant underemployment.

### We can expect more from new towns

Finally, we note that it is mainly the older, well-established cities that are driving these effects. Figure 7 shows the results of Figure 6, with the effect of urban access separated for old towns—that is, those that existed as an urban agglomeration before 2000—and new towns—those that emerged as an urban agglomeration after 2000. Stippled bars indicate that the estimated change in hours worked between 2010 and 2019 for the employment category in the specific town type statistically is not significantly different from zero. So, although growth in the newly established agglomerations could have a similar stimulating effect on rural labor to that of well-established cities, it has not yet come to its full potential.

**Figure 7. Old versus new towns—increase in annual hours worked by rural workers as a result of a median increase in urban access between 2010 and 2019,**



Source: Own calculations based on the IHPS and Africapolis.

Note: Sample restricted to 1,407 rural adults who were not in school and aged between 15 and 65 years in both rounds.

The change in annual hours spent working on jobs in the household non-farm enterprise employment category in old towns and all changes in new towns statistically are not significantly different from zero, so the bars are stippled.

## Discussion

Our analysis contains several important findings about rural employment trends in Malawi between 2010 and 2019. First, there is an increased tendency for people to hold more than one job. Those

with a single type of job decreased from 55 percent to 34 percent, while those with two or more types of jobs went from 45 percent to 66 percent. And while this has contributed to reducing rural underemployment, the average annual rural working schedule fills only 51 percent of a full-time schedule, suggesting there remains significant untapped income-earning potential in rural areas. More worrying is *how* the rural employment gap is being filled. The largest increase in hours worked comes from *ganyu*, a low-paid, highly erratic, casual form of labor. In 2010, a majority of rural adults worked solely on the household farm, but by 2019 the most popular livelihood choice was combining such farm work with *ganyu*. However, relying on farming or *ganyu*—be it as a sole activity or combining both—is not sufficient for the average household to arrive at a full working schedule and be employed full-time.

Only those individuals who work in household non-farm enterprises or who have wage employment are able to work close to full-time. Whereas wage employment stagnated between 2010 and 2019, there was a significant gain in combining work on the household farm with household non-farm enterprises. Whereas in 2010 only 10 percent of working-age adults combined work in these two activities, by 2019 this had nearly doubled to 19 percent. Furthermore, individuals who chose this livelihood combination were able to work full-time.

A first policy entry point could then be to support growth of such household non-farm enterprises in rural areas. Devising policies to achieve this is, however, less than straightforward. On the one hand, there are supply-level constraints related to the human and physical capital of aspiring entrepreneurs that need to be addressed. On the other hand, low rural incomes choke local demand for goods and services, making it hard for enterprises to be economically viable. Policies and programs that attempt to simultaneously alleviate supply and demand constraints will be worth more than the sum of their parts.

Another policy entry point departs from the idea that demand for rural goods, services, and labor can also come from nearby urban growth. In our statistical analysis, we confirm that urban growth has led to more hours worked in the surrounding rural areas. While much of the increase comes from *ganyu*, we do also see positive impacts on hours supplied to wage employment and household non-farm enterprises. For policymakers, the important insight here is that urban growth can have positive spillovers to rural areas, but that the effects dissipate with distance. Finding ways to improve rural-urban linkages, reducing commuting times, and investing in infrastructure that connects rural dwellers to urban markets would be valuable.

To spread the positive effects of urbanization more widely across the country, it is important to establish a network of secondary cities. There are currently eight identified for investment in the Malawi Secondary City Plan. Satellite data suggest there are several dozen emerging small towns across the country, which, although not officially recognized as urban, are taking on increasingly urban characteristics. Our analysis showed that in the period from 2010 to 2019, growth in these newly established urban areas did not contribute as much to rural job creation as did growth in well-established cities and towns. With the right investments, the increasing number of secondary cities and emerging towns can become transformational for the rural areas that surround them.

One such investment is supporting the development of modern value chains, with secondary cities or smaller emerging towns serving as hubs and strong upstream linkages spreading the benefits into the rural areas. De Weerd et al. (2023) contrast a modern mango value chain in Salima, which exports fresh and dried mangoes, to a traditional one selling locally. The modern value chain stands out compared to the traditional one, not only because it adds three times more value to an equal volume of mangoes, but also because that extra value addition involves hiring a significant number of rural and urban workers, enabling them to earn higher wages off their own farms.



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## REFERENCES

- Africapolis. 2022. "Country Report: Malawi." accessed 13/04/2022. <https://africapolis.org/en/country-report/Malawi>.
- Benson, T. and J. De Weerd. 2023. Employment options and challenges for rural households in Malawi. MaSSP Working Paper 40. Washington DC: International Food Policy Research Institute (IFPRI).
- Caruso, G.D., and L.M. Cardona Sosa. 2022. Poverty Persistence in Malawi: Climate Shocks, Low Agricultural Productivity, and Slow Structural Transformation. Washington, DC: World Bank Group.
- De Weerd, J., L. Pienaar, E. Hami, and W. Durand. 2023. Leveraging Urbanization for Inclusive Development in Malawi: Anchoring secondary city development of Salima/Chipoka in a modernizing fruit value chain. MaSSP Working Paper 42. Washington DC: International Food Policy Research Institute (IFPRI).
- Van Cappellen, H., and J. De Weerd. 2023. Rural underemployment and urbanization: Insights from a nine-year household panel survey from Malawi. MaSSP Working Paper 43. Lilongwe, Malawi: International Food Policy Research Institute.

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