Agriculture in Pakistan

Metrics Used

We use the following indicators to generate our metrics:

\textbf{Value Added in Agriculture, constant 2010 US$}: The net output of the Agriculture sector, including forestry hunting and fishing, after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciations of fabricated assets or depletion and degradation of natural resources.

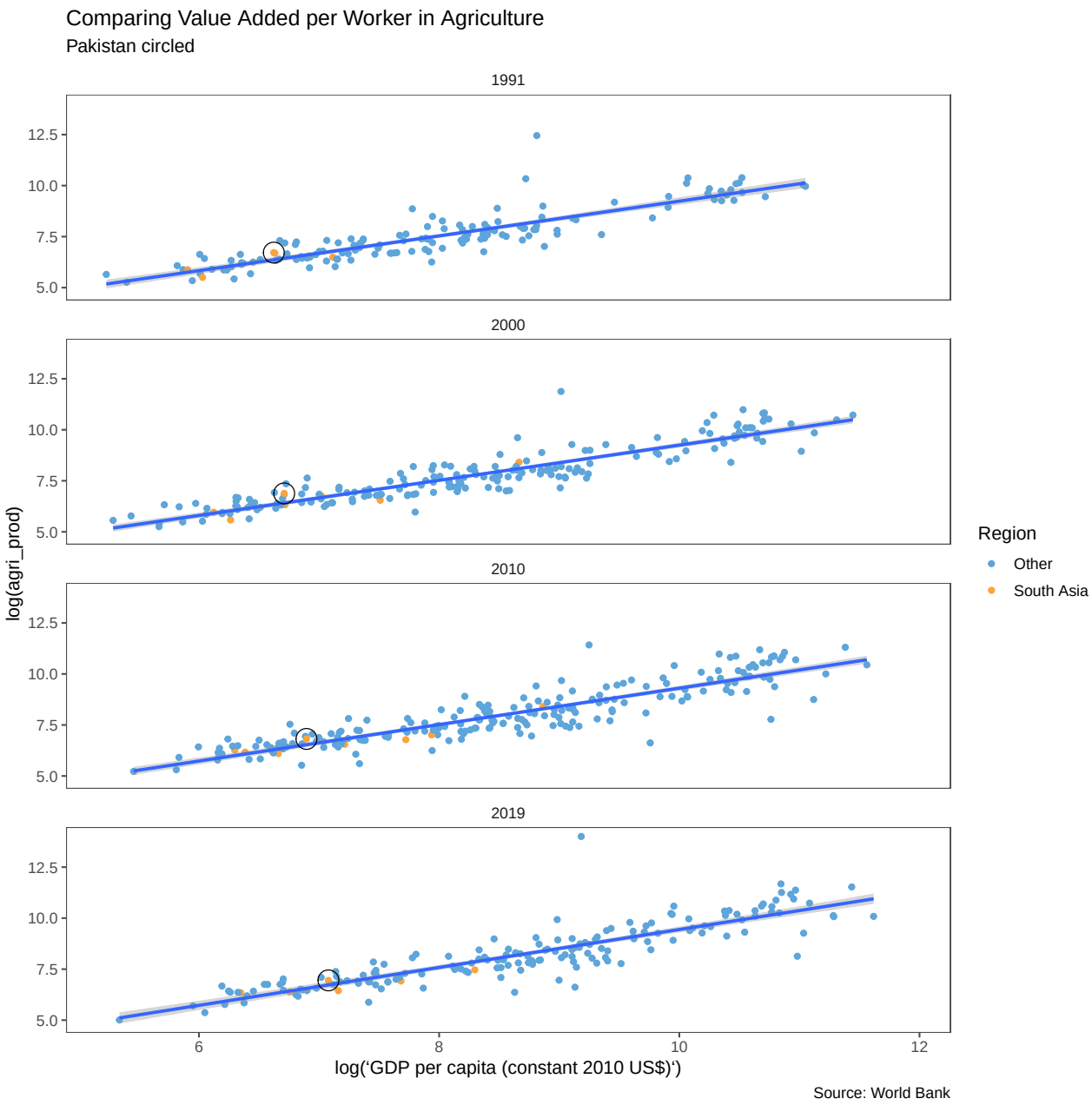
\textbf{Employment in Agriculture (% of total employment) (modeled ILO estimate)}: Employment is defined as persons of working age who were engaged in any activity to produce goods or produce services for pay or profit, whether at work during the reference period or not at work due to temporary absence from a job, or to working-time arrangement. The agriculture sector consists of activities in agriculture, hunting, forestry and fishing

Working Age Population: Total population between the ages 15 to 64.

Arable Land: Arable land (in hectares) includes land defined by the FAO as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Land abandoned as a result of shifting cultivation is excluded.

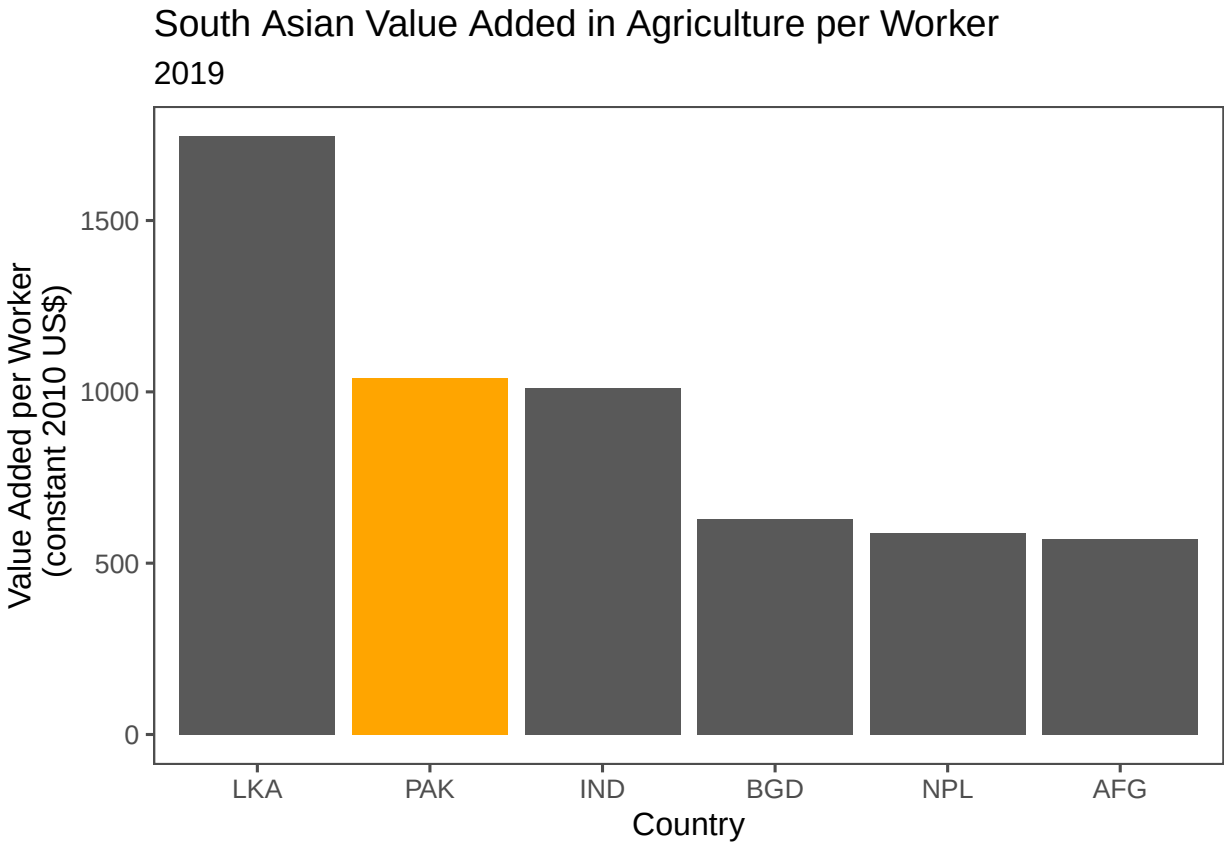
Pakistan have low Value Added per Worker in Agriculture?

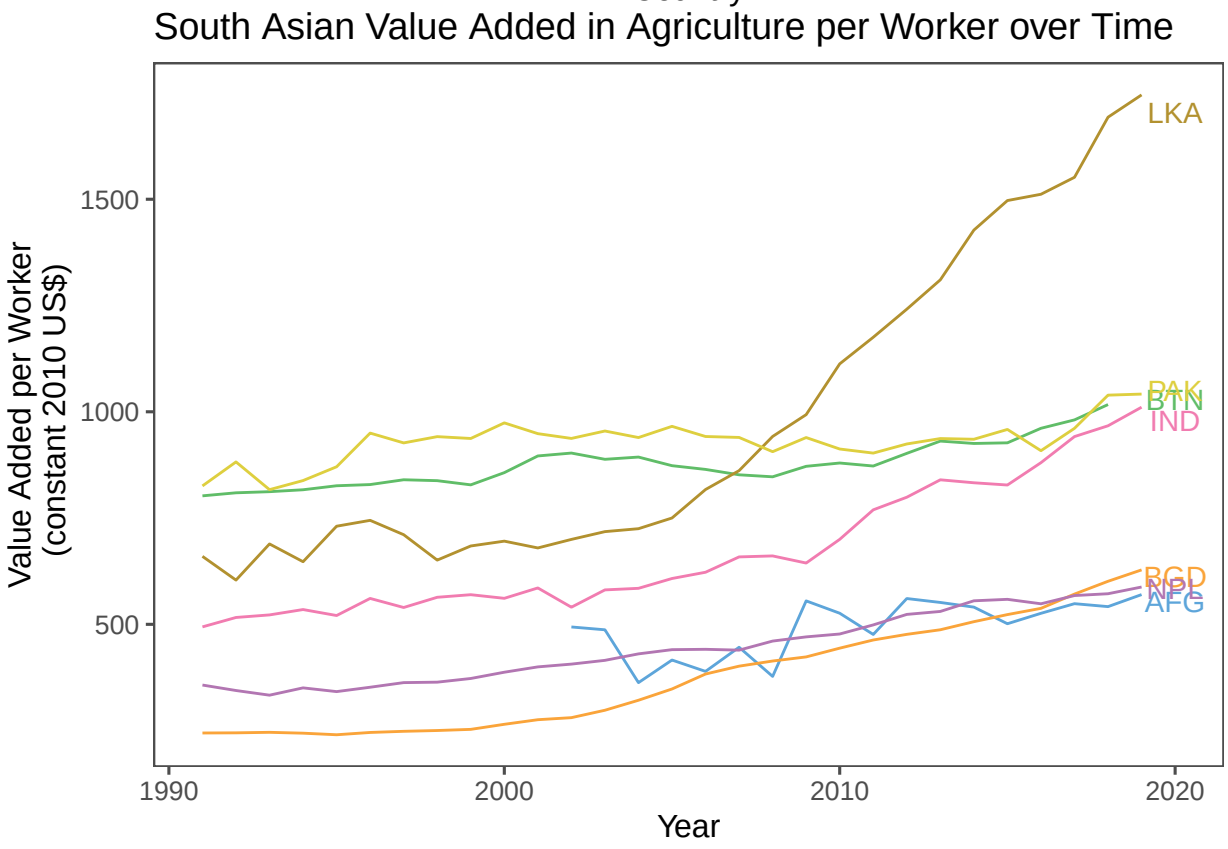
For it's level of GDP per Capita, Pakistan has a slightly above-expected valued added per worker in agriculture.

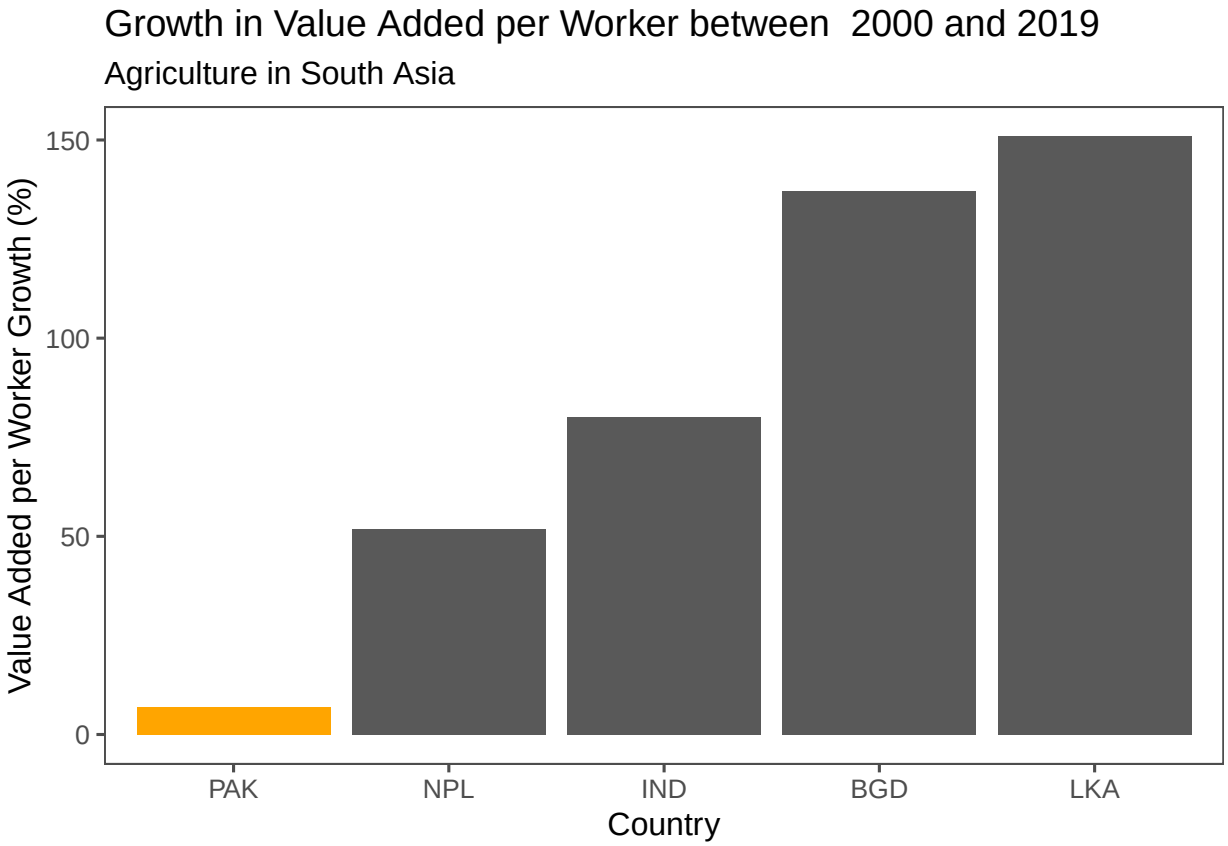


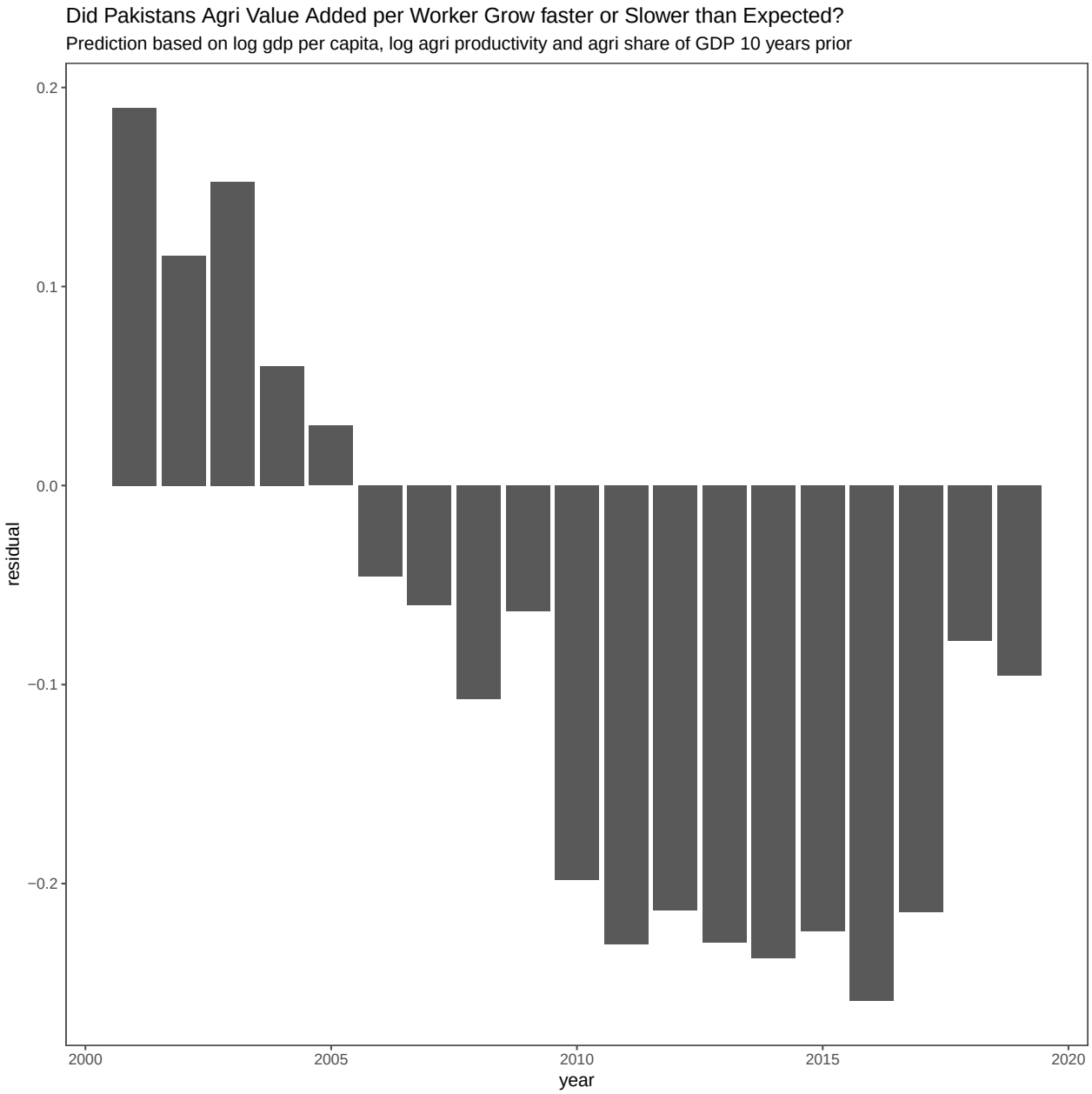
How does Pakistans Value Added per Worker Change over Time?

While it has a relatively high level of value added per worker in agriculture, Pakistan has the slowest growth in value added per worker between 2000 and 2019 in South Asia.


South Asian Value Added in Agriculture per Worker
2019
Value Added per Worker
(constant 2010 US$)
1500
1000
500
0
LKA
PAK
IND
BGD
NPL
AFG
Country


South Asian Value Added in Agriculture per Worker over Time
Value Added per Worker
(constant 2010 US$)
1500
1000
500
1990
2000
2010
2020
Year
LKA
PAK
BTN
IND
BGD
NPL
AFG


Growth in Value Added per Worker between 2000 and 2019
Agriculture in South Asia
Value Added per Worker Growth (%)
150
100
50
0
PAK
NPL
IND
BGD
LKA
Country



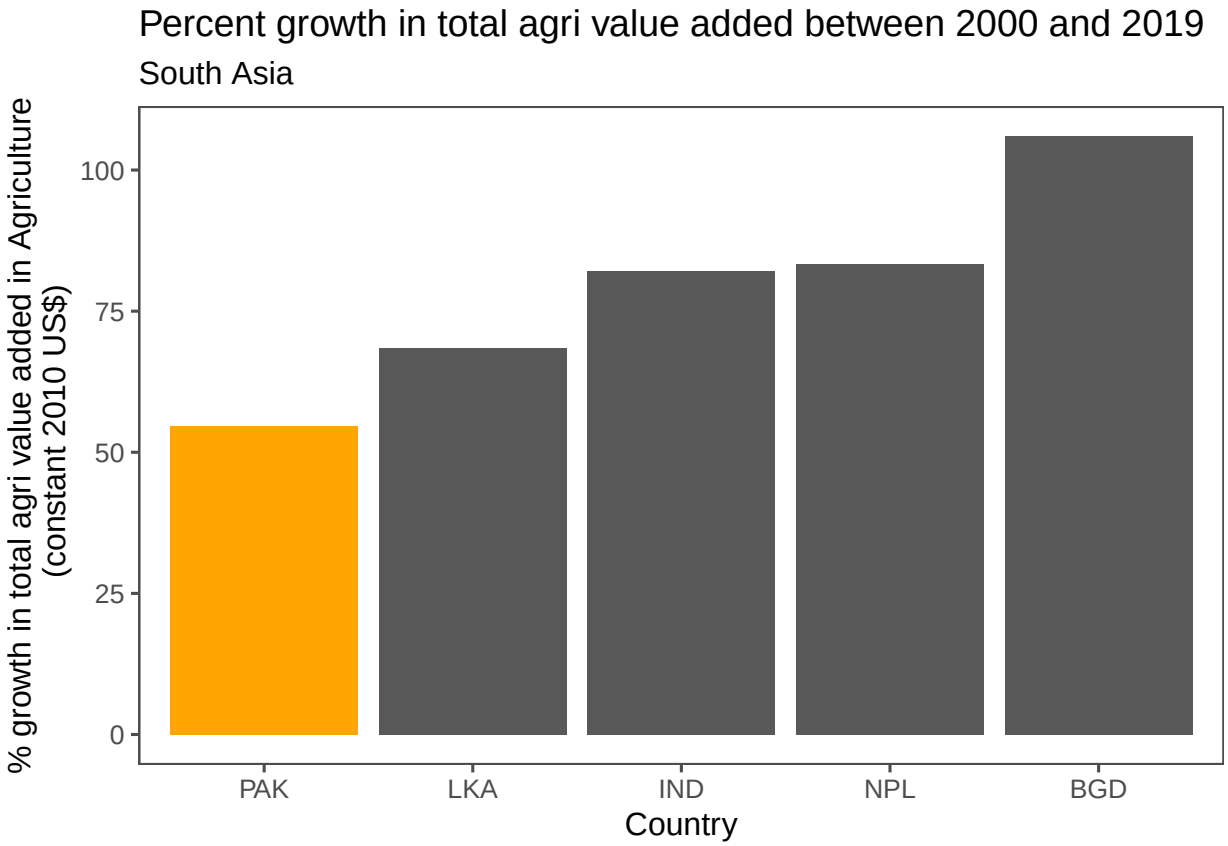
Decomposing Growth in Value Added per Worker

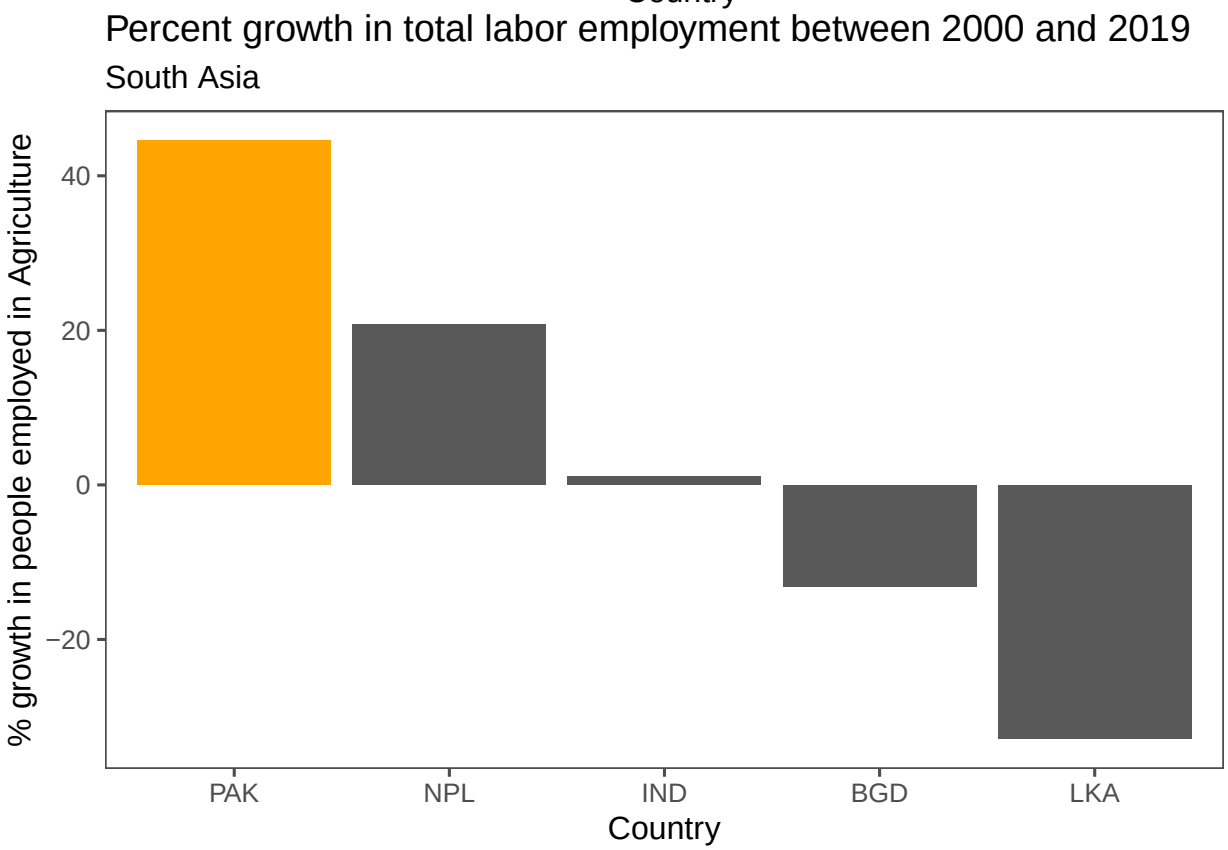
Value added per worker in agriculture is measured as gross output of the sector, minus intermediate costs, and divided by the number of people working in that sector.

Is Pakistans low growth driven by slow growth in value add, or by fast growth in the labor pool, compared to other south asian countries?

Both. Pakistan had the slowest growth in total agriculture value add between 2000 and 2019 in South Asia. Additionally, Pakistan had the largest growth in total agriculture labor in all of South Asia.

Decomposing the agriculture labor growth, we see that while both male and female labor growth is higher than comparators, female growth significantly outpaces male labor growth.

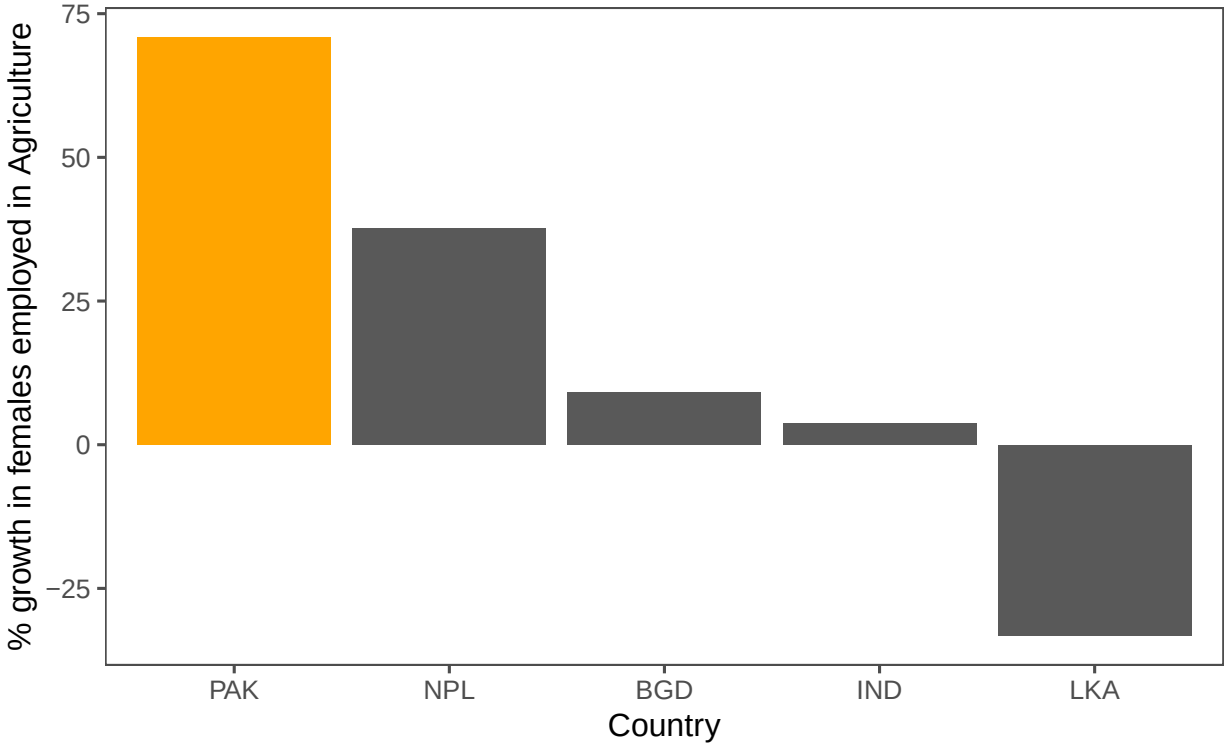




We can decompose the growth in labor between men and women.

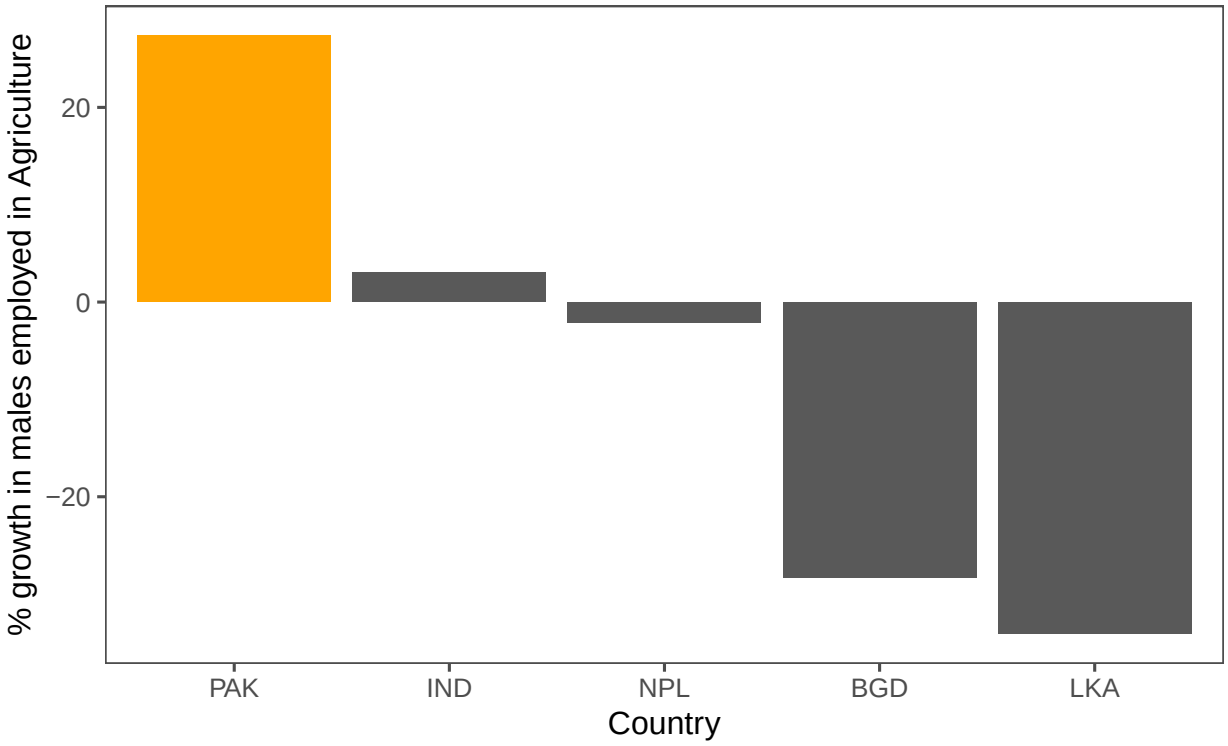
Percent growth in female labor employment between 2000 and 2019

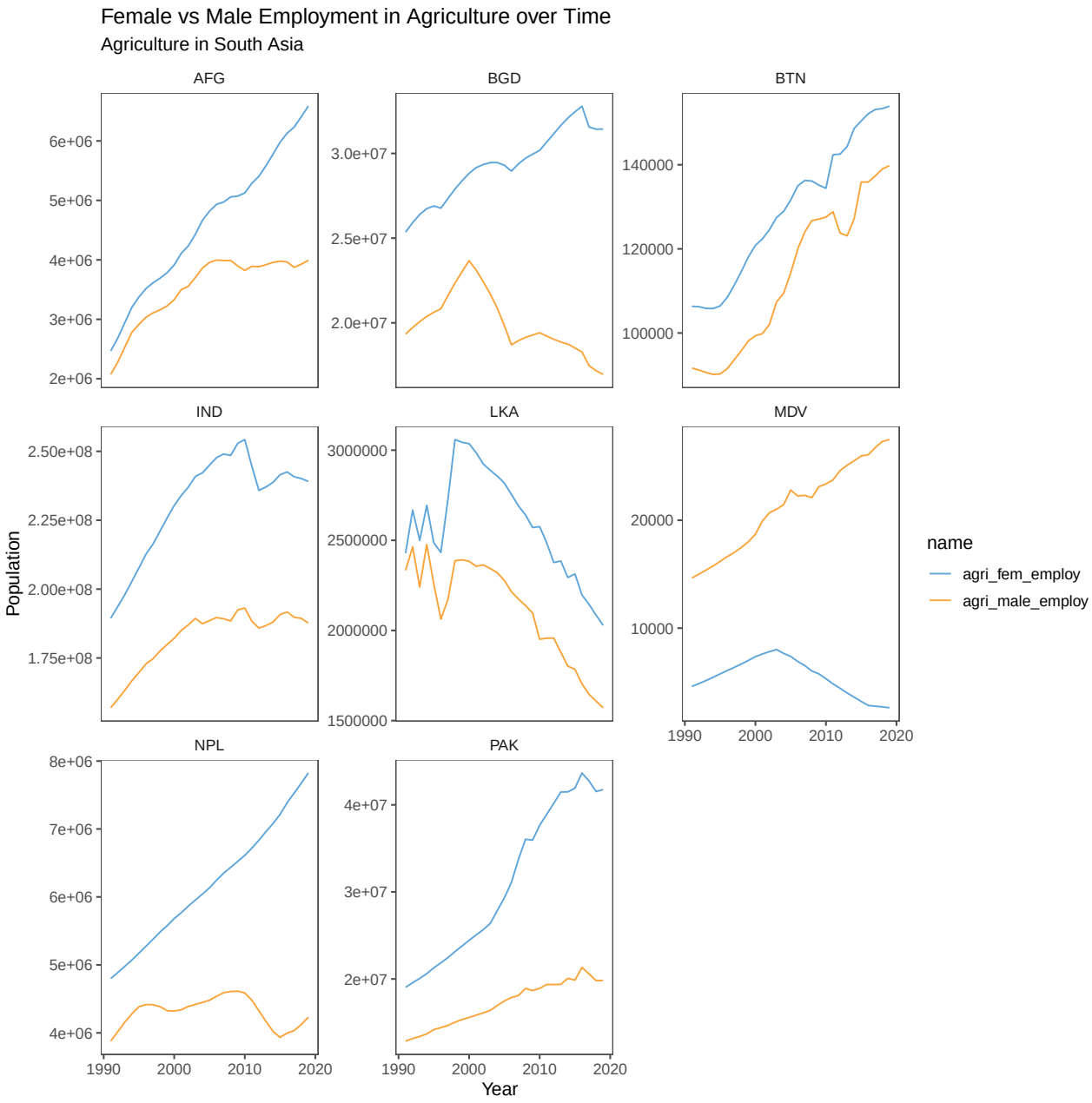
South Asia



Percent growth in male labor employment between 2000 and 2019

Agriculture in South Asia





Value Added per Hectare of Arable Land

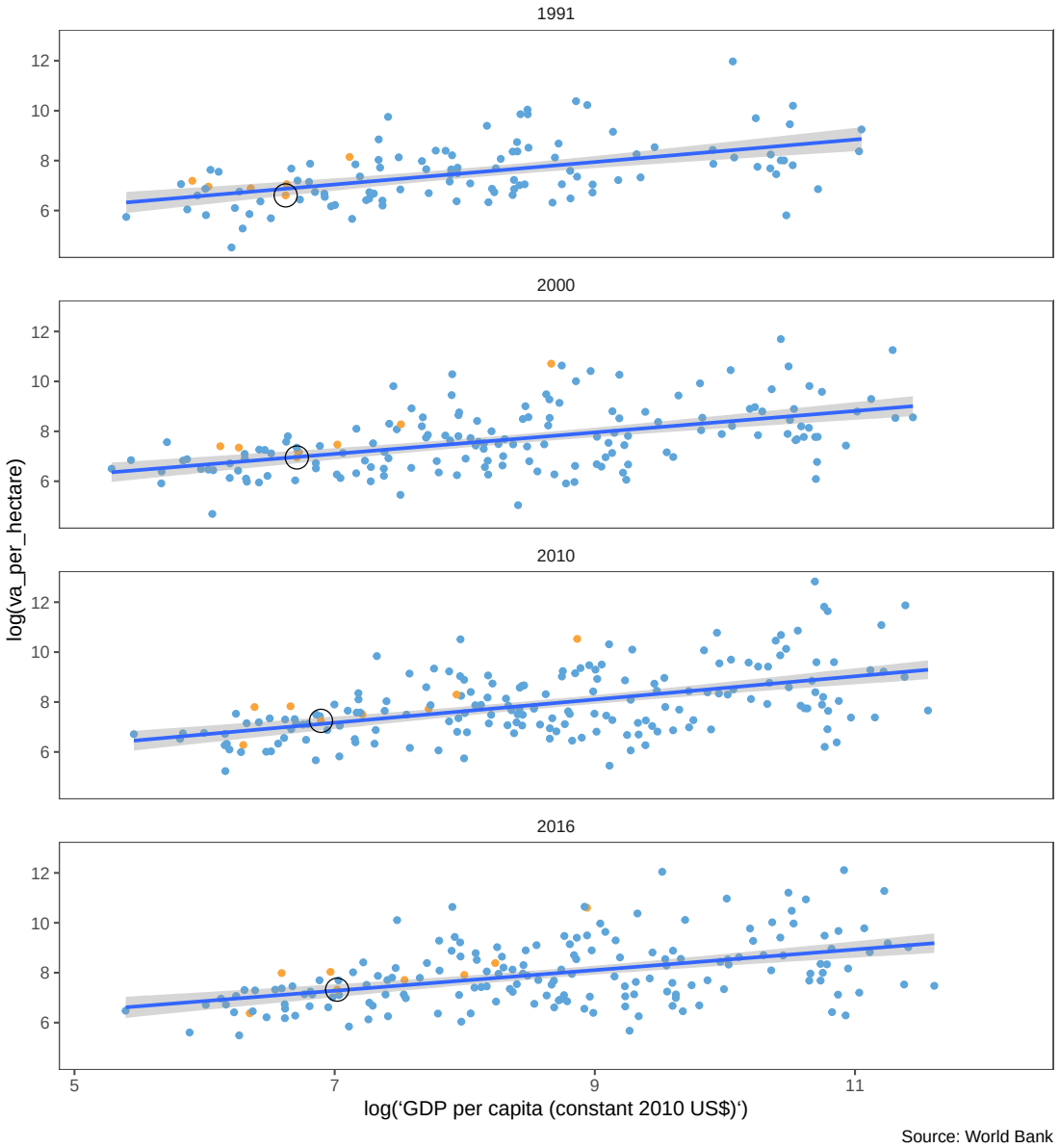
In the world, Pakistan has roughly expected levels of Value Added per Hectare of Arable land for its level of GDP per capita.

However, the next figure shows that Pakistan has the lowest value added per hectare of arable land in all of South Asia, bar Afghanistan.

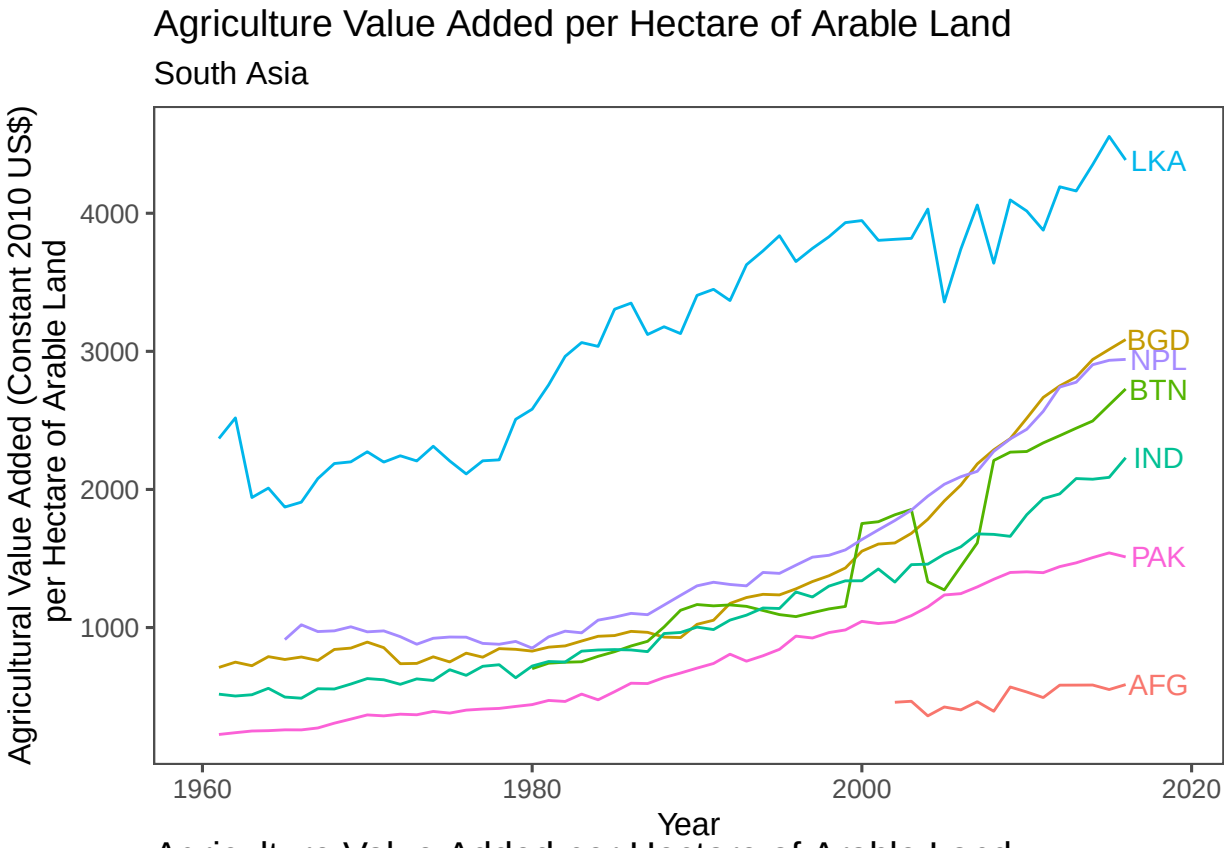
Growth has also been slow, and it has only been faster than Sri Lanka. Sri Lanka has had a greater growth in value added over this time period, and has slower growth in this metric due to a 40% increase in the amount of Arable land over the period.

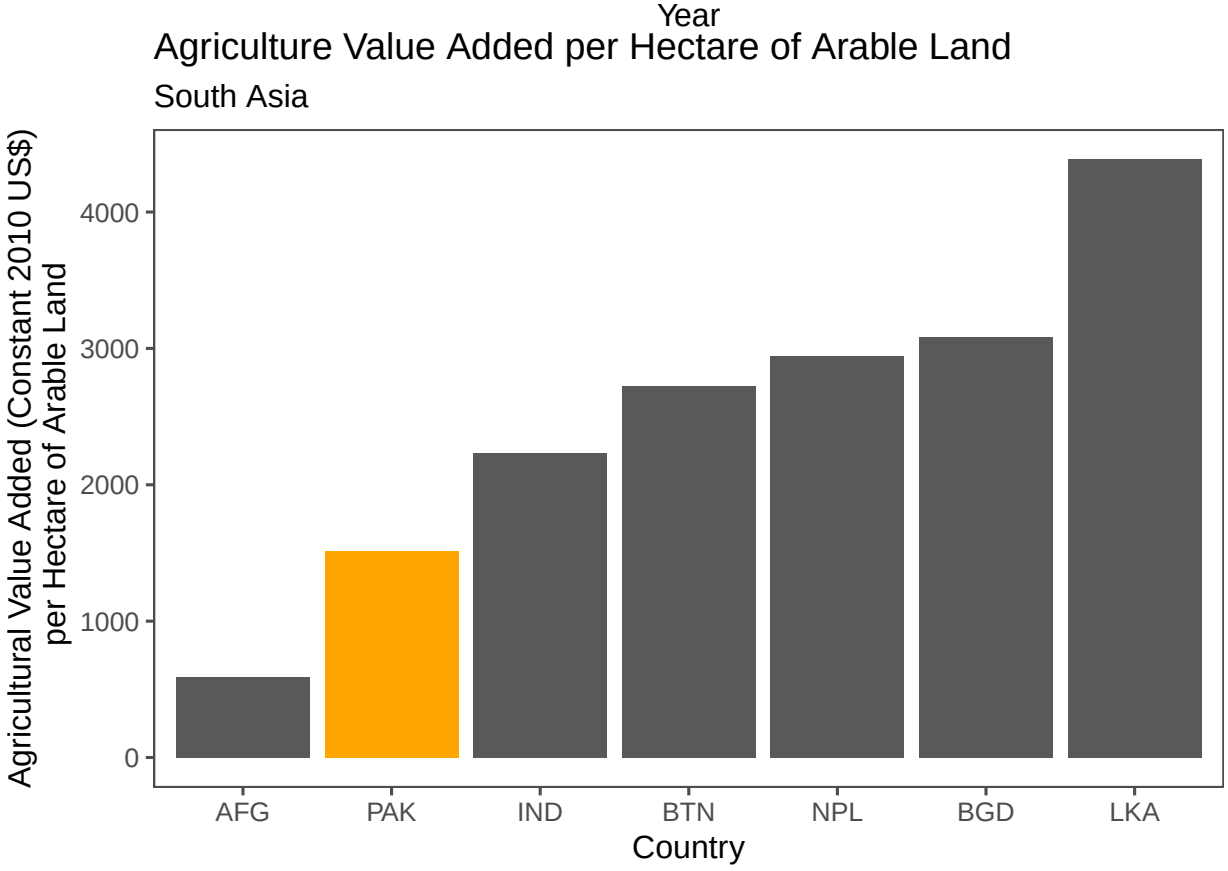
Comparing Agricultural Value Added per Hectare of Arable Land

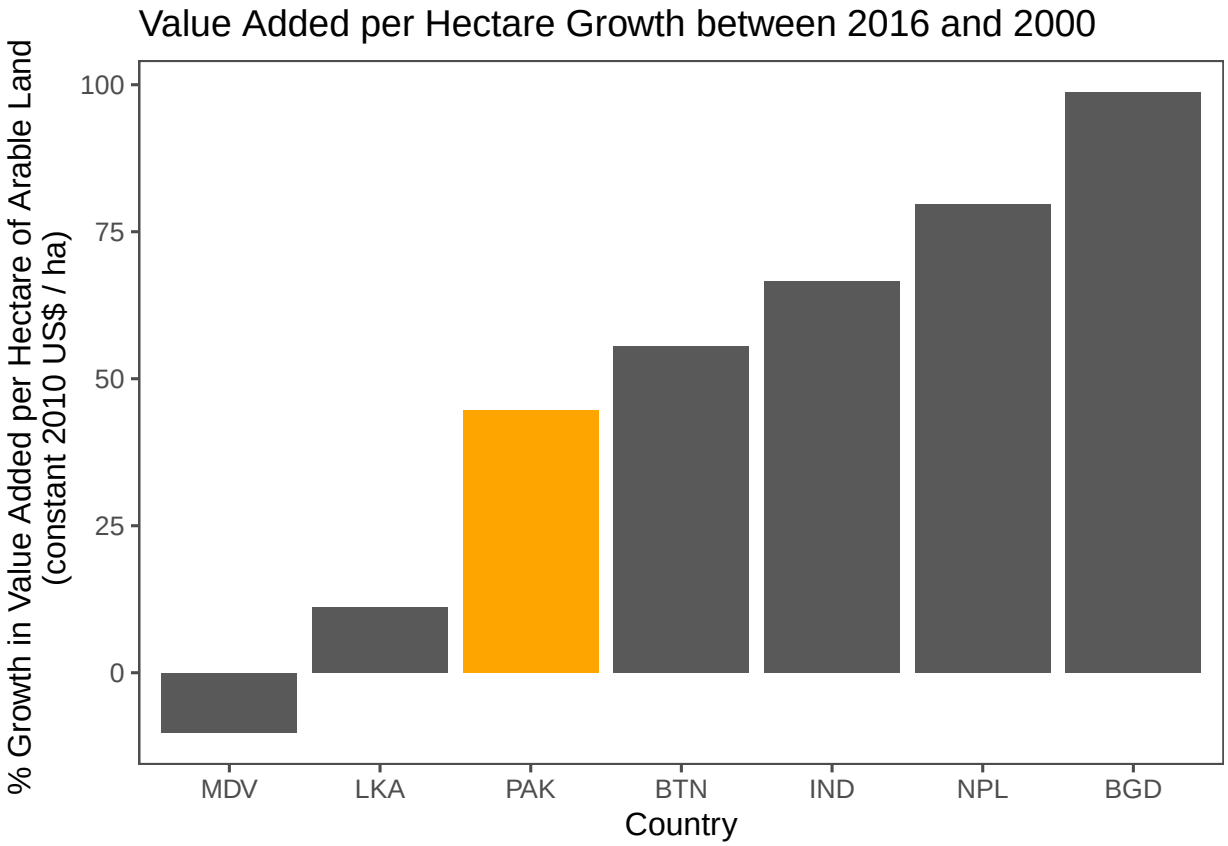
Pakistan circled

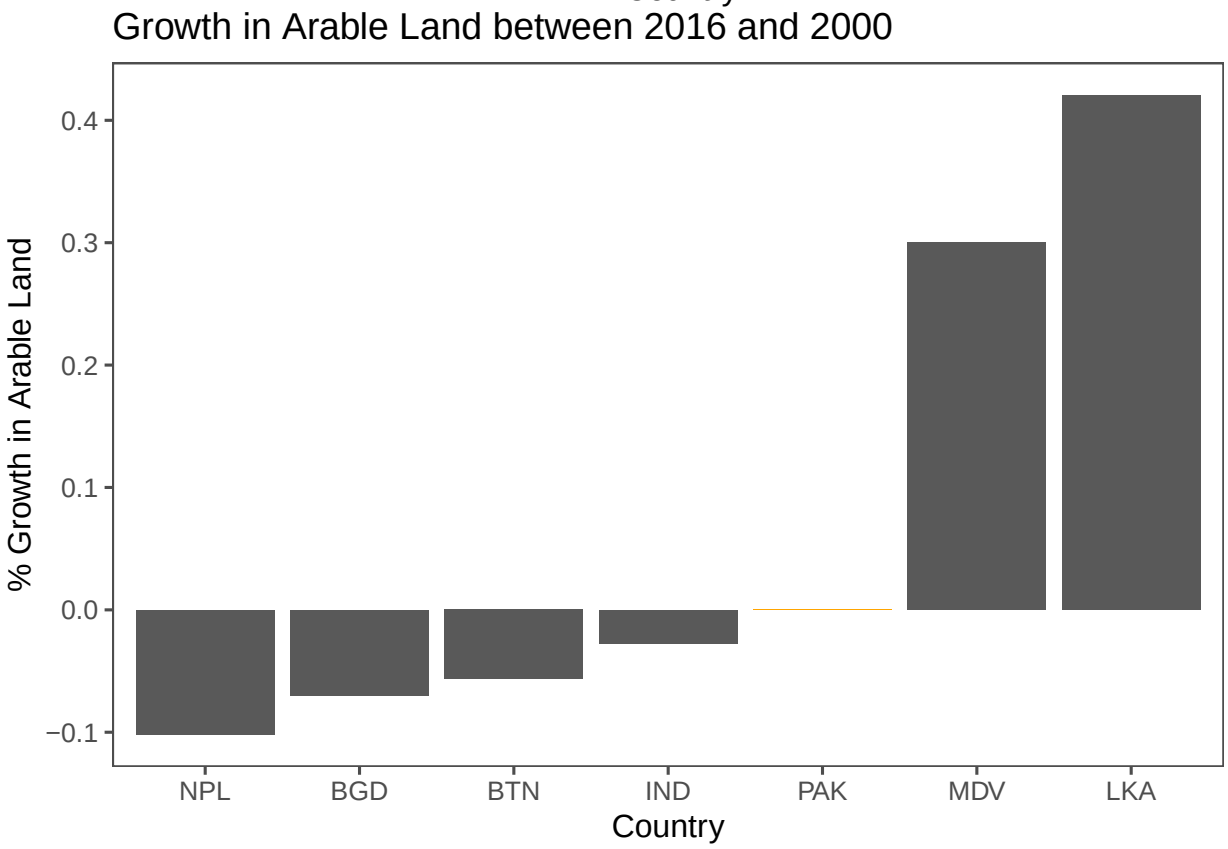


Source: World Bank


Agriculture Value Added per Hectare of Arable Land
South Asia
Agricultural Value Added (Constant 2010 US$) per Hectare of Arable Land
4000
3000
2000
1000
LKA
BGD
NPL
BTN
IND
PAK
AFG
1960
1980
2000
2020
Year


Agriculture Value Added per Hectare of Arable Land
South Asia
Agricultural Value Added (Constant 2010 US$) per Hectare of Arable Land
4000
3000
2000
1000
0
AFG
PAK
IND
BTN
NPL
BGD
LKA
Country


Value Added per Hectare Growth between 2016 and 2000
% Growth in Value Added per Hectare of Arable Land (constant 2010 US$ / ha)
100
75
50
25
0
MDV
LKA
PAK
BTN
IND
NPL
BGD
Country


Growth in Arable Land between 2016 and 2000
% Growth in Arable Land
0.4
0.3
0.2
0.1
0.0
−0.1
NPL
BGD
BTN
IND
PAK
MDV
LKA
Country

Next Steps

We have seen that both the value added growth is slower than comparators, and that L is increasing much faster than comparators.

There is significant room to increase the value added in agriculture. And this may be the problem to fixate on for now. Even with all these extra workers, who maybe cannot find a job in the industrial sector, we cannot boost the value added. Even if an 'average' number of people instead had shifted to work in industry, the value added would be lower compared to other countries.

According to this data, there are almost 2x as many women working in agriculture than men. I am curious what this actually means - do they only do particular jobs, work on particular crops? Maybe interventions need to target increasing the productivity of women in Agriculture.

Additionally, we see that Pakistan has the least productive land in South Asia, other than Afghanistan. Is this true at a subnational level as well? Why is it so unproductive?

Can we get variation in district-level land productivity? What drives that variation?