EJEM
Econ.J.Emerg.Mark.

Economic Journal of Emerging Markets
Available athttp://journal.uii.ac.id/index.php/jep

Inclusive growth and leading sector in Bali

Ni Made Ayu Krisna Cahyadi*, Sasongko, Putu Mahardika Adi Saputra

Department of Economics, University of Brawijaya, Indonesia

Article Info

Article history:
Received: 2 July 2017
Accepted: 7 March 2018
Published: 1 April 2018

Keywords:
inclusive growth, pro-poor growth, poverty, inequality, labor absorption

JEL Classification:
O4, I320, D63

DOI:
10.20885/ejem.vol10.iss1.art11

Abstract

This research analyzes the dynamics of pro-poor growth in 9 regencies/cities of Bali province from 2007 to 2015. This research identifies pro-poor growth based on Poverty Equivalent Growth Rate (PEGR). The results show that the regions with agriculture leading sector tend to have pro-poor growth in reducing poverty and inequality but anti-poor in absorbing labors. On the contrary, the regions with high tourism potential show anti-poor growth trend in reducing poverty and inequality but pro-poor in absorbing labors.

Introduction

The economic development aims at achieving one major goal, public welfare. Some indicators, such as per capita income, poverty, inequality, and many more are used to measure the success of the development. One of the most important criteria is economic growth, which may describe the impact of development policy made by the government (Saputra, 2014; World Bank, 2016).

The theory of trickledown effect by explains that the advantages of economic growth shall influence even the bottom social layer, ranging from the formation of employment to other economic opportunities that can support economic growth equity (Nafziger, 2006). Simply speaking, economic growth will be followed by automatic vertical flow from the rich to the poor. According to Kakwani & Pernia (2000), this causes the benefit received by poor society too small regardless the belief that poverty eradication might take place although the people are economically disadvantaged.

In fact, the trickledown effect has not occurred until today. This can be seen from the increase of growth is not followed by the decreasing inequality. The economic growth in Bali in 2007 was 5,92% and on 2015 increased to 6,04%. On the other side, inequality also increased. In 2007, the Gini index was only 0,28 while on 2015 increased to 0,38 (Statistics Indonesia, 2016). The failure of trickledown effect encourages the government to formulate the economic strategies in favor of poor society as mentioned in the National Medium-Term Development Plan year 2004-2009 and 2010-2014 (National Development Planning Agency, 2004, 2010).

The two series of the National Medium-Term Development Plan prioritizes the development policy not only on pro-growth or positive economic growth but also on pro-job and pro-poor so that the society in all stratification levels gain the positive effect of the economic growth. These three types of policies are called Triple Track Strategy, which amends the trickledown effect. It is through the Triple Track Strategy that the Indonesian government is committed to achieving inclusive economic growth. Since Triple Track Strategy is a national development plan, then this policy becomes the reference policy in all regions in Indonesia, including the development policy in Bali.

Inclusive growth has been a popular term; many kinds of literature discuss its definition extensively. Ali (2007) proposes that inclusive growth focuses on the acceleration of opportunity and access expansion towards economic sources for all economic agents, especially for the group of less advantaged community. Klasen (2010) underlines the importance of recognizing the growth categorized as inclusive growth regarding two possibilities. First, the process, in which the economic growth involves public participation and thus

P ISSN 2086-3128|E ISSN 2502-180X
*Corresponding author e-mail: ayucahyadi@hotmail.com

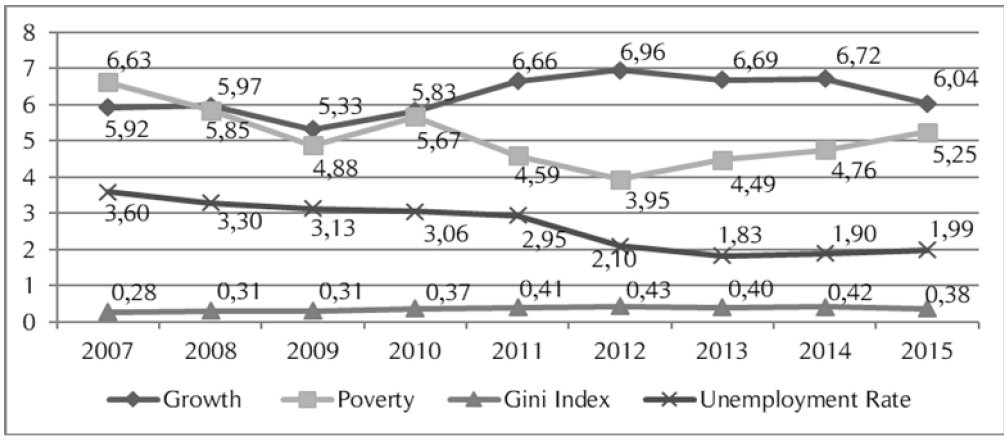
classified as inclusive. Second, the result, i.e., the extent to which the outcome gives advantages to the majority of people. The second possibility is much similar to the concept of pro-poor growth.

Pro-poor growth has various definitions. Kakwani & Pernia (2000)propose that growth is pro-poor if the poor receive more proportional benefits than the non-poor. Under the circumstances of negative growth, pro-poor growth is assumed to take place when the lost suffered by poor people is proportionally less than that suffered by the non-poor (Asian Development Bank (ADB), 1999; Grosse, Harttgen, & Klasen, 2008; Klasen, 2008; Pernia, 2003; Ravallion & Chen, 2003; Son & Kakwani, 2008)

Another definition by Aoyagi & Ganelli (2015)of inclusive growth, which is identical to the concept of pro-poor, requires the reduction of income disparity between the poor and the non-poor society. Quite similar to pro-poor growth concept which focuses on the relative growth to reduce the gap between the two groups, inclusive growth tends to reduce the inequality in general Kanbur & Rauniyar (2009). Another approach by the World Bank (2009) asserts that inclusive growth should involve labors' productivity. The increasing number and productivity of the labors are fundamental elements in sustainable growth strategy, which affects the poverty reduction as poor people rely on the labors as the most important asset in their life (Asian Development Bank, 2008)

The concept of pro-poor growth in this research is applied in Bali, one of the Indonesian provinces with its rich of tourism potentials. Trading, hotel, and restaurant sectors support the highest annual contribution to the Province's Gross Domestic Regional Product. In 2015, the contribution reached 31.11%. On the other hand, the contribution of the agriculture sector, which has been the leading sector in other areas with fewer tourism potentials, decreases year by year. Agriculture sector contributed for 19.41% in 2007, and it decreases to 14.92% in 2015 (Statistics of Bali Province, 2016).

The average of economic growth in Bali during 2007 to 2015 is 6.24% (Figure 1). Such high economic growth, however, does not guarantee the reduction of the poverty level, inequality, and employment rate in the province. It is proven by the fluctuating percentage of poor people. The number even shows a significant increase in 2013 up to 2015. The inequality, measured by Gini index, also increases every year. According to Sasongko (2009), the economic potential in one region should support the development of other regions. Apparently, this has not happened in Bali yet. The increase of inequality is supposed to be the effect of the centralization of economic activities in South Bali as the main destination of tourists' visit to Bali. Meanwhile, the unemployment rate reflecting the extent to which labors are employed rose in 2014 and 2015 due to the weakness of economic sectors in absorbing the labors.



Source: Statistics of Bali Province, 2008-2016

Figure 1. Economic Growth, Poverty, Gini Index, and Unemployment Rate In Bali Province 2007-2015 (%)

This research aims to identify and analyze the dynamics of pro-poor growth in three terms, i.e. (i) poverty reduction, (ii) inequality reduction, and (iii) labor absorption in 9 regencies/cities of Bali province from 2007 to 2015.Identification towards pro-poor growth is based on Poverty Equivalent Growth Rate (PEGR) developed by Son & Kakwani (2008) and adoption equation by Klasen (2010).In this paper, the result will show different tendencies between regions with agriculture leading sector and regions with leading tourism sector. This proves that tourism is an important role in affecting economic growth in Bali.

Research Method

The method used to identify pro-poor growth in this research is Poverty Equivalent Growth Rate (PEGR) developed by Kakwani & Son (2008). This study also adopts the technique of Klasen (2010) that identifies pro-poor growth into three terms, i.e. (i) poverty reduction, (ii) inequality reduction, and (iii) labor market which proxied by labor absorption. Both of PEGR formula by Kakwani & Son (2008) and adoption equation by Klasen (2010) is formulated as follows.

$$\gamma^* = \left(\frac{\delta}{\eta}\right)\gamma \quad (1)$$

$$IG_{ij} = \frac{G_{ij}}{G_i} G_j \quad (2)$$

Where IG_{ij} is inclusivity coefficient; G_{ij} is growth of group i in indicator j; and G_j is growth of indicator j. In this equation, i refers to a less advantaged group, while j refers to the related indicator (such as poverty, income, and so on).

About the adoption equation, three terms of pro-poor growth, i.e., poverty reduction, inequality reduction, and labor absorption are formulated as follows, in which all data are derived from the Statistics of Bali Province.

$$IG_p = \frac{G_{pg}}{G_p} G_g \quad (3)$$

$$IG_{in} = \frac{G_{in.g}}{G_{in}} G_g \quad (4)$$

$$IG_{em} = \frac{G_{em.g}}{G_{em}} G_g \quad (5)$$

Where IG_p is pro-poor growth index in poverty reduction; G_{pg} is elasticity of poverty to growth; G_p is elasticity of poverty to mean income; IG_{in} is pro-poor growth index in inequality reduction; $G_{in.g}$ is elasticity of inequality to growth; G_{in} is elasticity of inequality to mean income; IG_{em} is pro-poor growth index in labor absorption; $G_{em.g}$ is elasticity of labor absorption to growth; G_{em} is elasticity of labor absorption to labor force; and G_g is actual growth.

The result of PEGR assessment is visually presented in the 4-quadrant diagram showing the characteristics of the growth in 9 regencies/cities of Bali Province from 2007 to 2015. To identify the result of pro-poor growth index and poverty reduction, inequality, and labor absorption, the score is classified as follows:

Table 1. Identification of Pro-Poor Growth Index

Identification	Characteristic	Interpretation
$IG = G_g$	Neutral	Everyone receives the same benefits proportionally from growth
$IG > G_g$	Pro-Poor Growth	The poor receive more benefits from growth
$0 < IG < G_g$	Not Pro-Poor Yet	The non-poor receives more benefits from growth regardless poverty reduction
$IG < G_g$	Anti Poor	The non-poor receives more benefits from growth and poverty increases

Source: (Azwar, 2016)

The identification of PEGR divided into four, i.e. if $IG = G_g$ then it is categorized as neutral growth; if $IG > G_g$ then it is categorized as pro-poor growth; if $0 < IG < G_g$ then it is categorized as not pro-poor yet; and if $IG < G_g$ then it is categorized as anti-poor (see Table 1).

Results and Discussion

Pro-poor growth in poverty reduction

World Bank (2013) defines poverty as the condition of hunger, lack of housing, being sick and unable to see a doctor, lack of access to education and power, and jobless. The reduction of the poverty level is one of the indicators used to achieve pro-poor economic growth. The failure of high economic growth to reduce poverty indicates the exclusiveness of the growth enjoyed only by rich people.

Table 2 shows the average comparison of actual economic growth and pro-poor growth index in poverty reduction for nine years in 9 regencies/cities (see Appendix 1). The data in Table 2 illustrate that some

regencies/cities have achieved not pro-poor yet and neutral growth. Jembrana, Badung, Gianyar, and Bangli on average have not yet performed the pro-poor growth during 2007-2015. It means that the non-poor receives the benefits or advantages of the growth, regardless the fact of poverty reduction. Meanwhile, Tabanan, Klungkung, Karangasem, Buleleng, and Denpasar show neutral growth from 2007 to 2015. On average, this indicates that both poor and non-poor groups proportionally receive equal benefits from the growth.

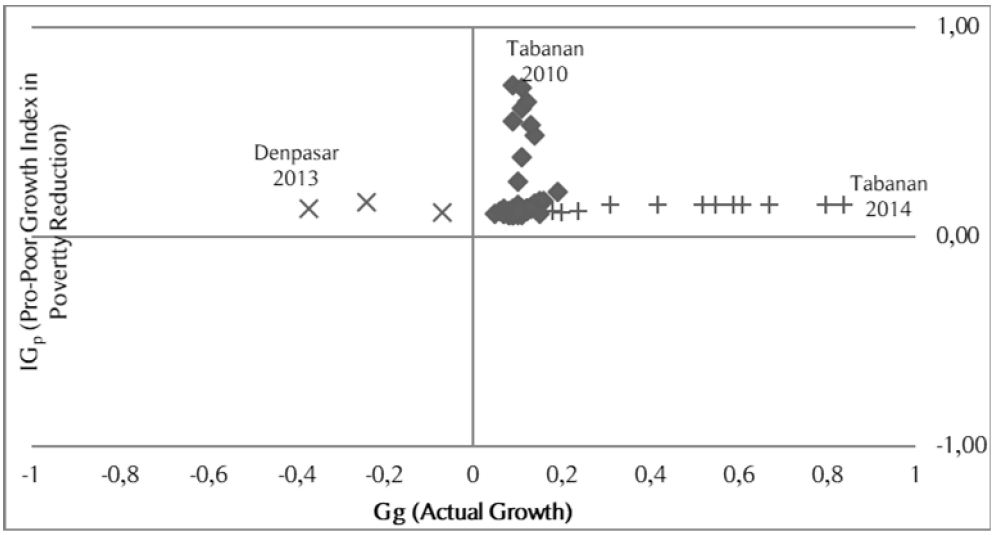
Table 2. The Average of Economic Growth and Pro-Poor Growth Index in Poverty Reduction in 9 Regencies/Cities of Bali Province 2007-2015

Regencies/Cities	IG_p	G_g	Characteristic
Jembrana	0.16	0.17	Not pro-poor yet
Tabanan	0.19	0.19	Neutral
Badung	0.13	0.19	Not pro-poor yet
Gianyar	0.15	0.17	Not pro-poor yet
Klungkung	0.15	0.15	Neutral
Bangli	0.13	0.14	Not pro-poor yet
Karangasem	0.18	0.18	Neutral
Buleleng	0.19	0.19	Neutral
Denpasar	0.12	0.12	Neutral

Source: Appendix 1

Note: IG_p=Pro-poor growth index in poverty reduction; G_g= Actual growth

Figure 2 shows that in 2013 Denpasar City had the lowest pro-poor growth index and was valued negatively; however, as the actual growth was negative, it is categorized as not pro-poor yet in poverty reduction. In 2010, Tabanan Regency achieved the highest actual growth, but its pro-poor index value was still lower than the growth itself. Therefore, the growth is categorized not pro-poor yet although there are still reducing poverty level. Quite the contrary, in 2014 Tabanan had the highest pro-poor index value and classified as pro-poor growth.



Source: Statistics of Bali Province, 2008-2016 (processed data)

Note:

IG < 0 means anti-poor growth
IG>G_g means not pro-poor growth yet
0<IG<G_g means pro-poor growth

Figure 2. Comparison Between Economic Growth and Pro-Poor Growth Index in Poverty Reduction in Bali Province 2007-2015

On average, the economic growth of the nine regencies/cities of Bali Province has not been pro-poor yet in reducing poverty. The regions, which tend to have pro-poor growth, are those functioning agriculture

sectors as their main economic driving source. In contrast, the regions with high tourism potential like Badung, Gianyar, and Denpasar tend to have anti-poor growth.

According to the research carried out in India, Besley, Burgess, & Esteve-Volart (2005) proposes that pro-poor growth, which reduces poverty, is likely to take place only in the regions with sufficient infrastructure and education facilities, whereas other regions demonstrate anti-poor growth. Another research was conducted by Duclos & Audrey (2010) in South Africa as a developed region and Mauritius representing the under-developed one. Their research shows that South Africa performs anti-poor growth, while Mauritius presents pro-poor growth. The result of the studies has a similar tendency as that shown in Bali Province.

The study also reveals that the regions with high tourism potentials or those classified as advanced area tend to show anti-poor growth, e.g., Badung, Gianyar, and Denpasar. In contrast, the underprivileged regions tend to have pro-poor growth. These trends demonstrate that regions with high tourism potential focus on developing tourism itself instead of reducing the poverty level, although local government policy on tourism development is expected to give indirect effect on the reduction of poverty.

Pro-poor growth in inequality reduction

In addition to reducing poverty, pro-poor growth is intended to reduce inequality, especially–as this study concern–in terms of the income. The inequality in Indonesia occurs not only between provinces in Java Island and those out of Java, or between West and East Indonesia. Instead, it happens even in such a narrower scope as among regencies/cities in one province.

Table 3. The Average of Economic Growth and Pro-Poor Growth Index in Inequality Reduction in 9 Regencies/Cities of Bali Province 2007-2015

Regencies/Cities	IG_{in}	G_g	Characteristic
Jembrana	0.13	0.17	Not pro-poor yet
Tabanan	0.15	0.19	Not pro-poor yet
Badung	0.09	0.19	Not pro-poor yet
Gianyar	0.12	0.17	Not pro-poor yet
Klungkung	0.12	0.15	Not pro-poor yet
Bangli	0.13	0.14	Not pro-poor yet
Karangasem	0.14	0.18	Not pro-poor yet
Buleleng	0.16	0.19	Not pro-poor yet
Denpasar	0.08	0.12	Not pro-poor yet

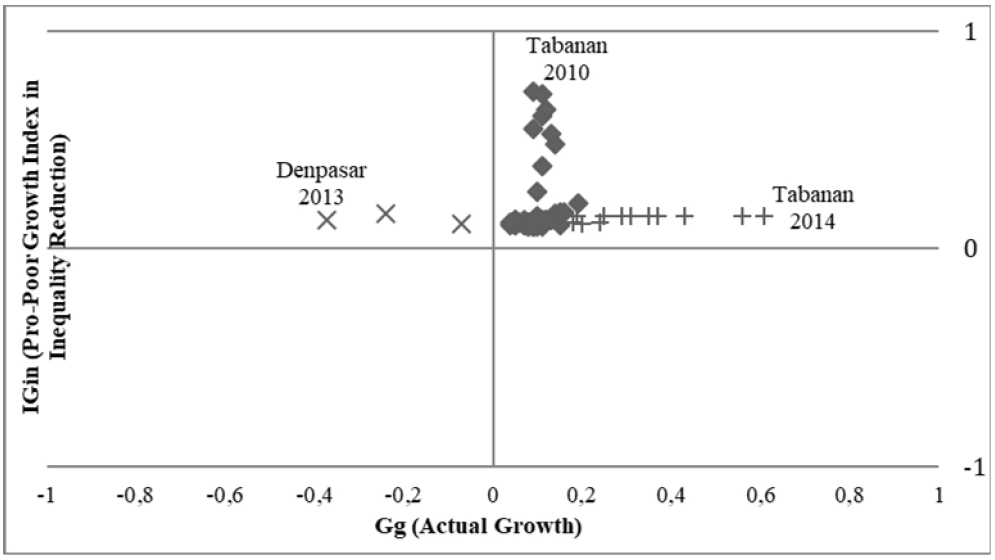
Source: Appendix 2

Note: IG_{in}=Pro-poor growth index in inequality reduction; G_g= Actual growth

The data presented in Table 3 illustrates the average comparison between actual economic growth and pro-poor growth index in inequality reduction for nine years (see Appendix 2). The table shows that all regions have achieved not pro-poor yet in inequality reduction. It means that non-poor people enjoy the benefits of growth more rather than by the poor ones, even though the inequality level is reducing.

Figure 3 reveals that the pro-poor growth in inequality reduction does not have much different result than the poverty reduction. In 2013, Denpasar City was situated in quadrant II because it had the lowest pro-poor growth index and was valued negatively so that it is characterized as anti-poor growth. In 2010, Tabanan Regency showed the highest actual growth, but it was not followed by pro-poor growth index; therefore, it is classified under the characteristic of not pro-poor yet. In a different year, Tabanan Regency is categorized pro-poor with the highest index value.

On average, all regions in Bali Province have not performed pro-poor growth yet in inequality reduction. Like the condition above of poverty reduction, regions having agriculture as their leading sector tend to have pro-poor growth in reducing inequality; whereas regions with high tourism potential tend to perform anti-poor growth. The research of Aoyagi & Ganelli (2015) shows that, even though the economic growth increases and poverty reduce in the last decade, inequality in Asia continues to increase.



Source: Statistics of Bali Province, 2008-2016 (processed data)
Note:

IG < 0 means anti-poor growth
IG>G_g means not pro-poor growth yet
0<IG<G_g means pro-poor growth

Figure 3. Comparison Between Economic Growth and Pro-Poor Growth Index in Inequality Reduction in Bali Province 2007-2015

The increase of economic growth is in fact not followed by inequality reduction, and this is noticeable in Bali Province. This is mainly caused by the centralization of economic activities in South Bali, which owns rich tourism potentials. Most investments are channeled to Badung Regency, which is located in South Bali and becoming the main destination of tourists visiting Bali. Other regions, on the other hand, still work on the agriculture industry, which seems unable to contend the existing tourism potentials.

Pro-poor growth in labor absorption

Economic growth should also be supported by the absorption of labors. High unemployment rate indirectly reflects high poverty. Thus, pro-poor growth might be achieved through labor absorption.

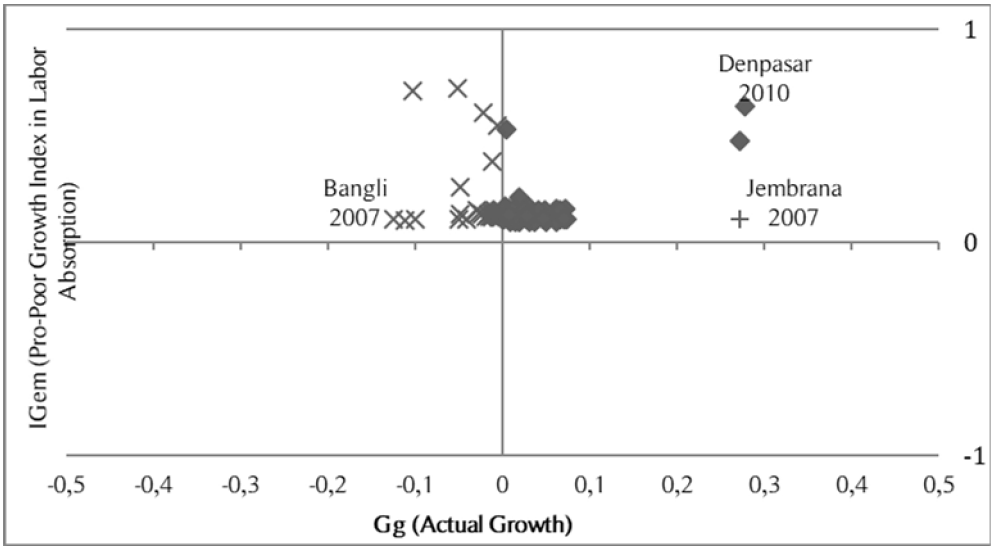
Table 4 shows the average actual economic growth and pro-poor growth index of the nine regencies/cities in Bali in labor absorption for nine years (see Appendix 3). The data presented in Table 4 indicate that all regencies/cities, excluding Bangli, have performed not pro-poor growth yet in absorbing labors. This means that mostly the non-poor receive the benefits of the growth although labor absorption rate increases. Bangli Regency, in contrast, shows anti-poor growth. This signifies that mostly the non-poor regarding labor absorption receive the benefits of the growth.

Table 4. The Average of Economic Growth and Pro-Poor Growth Index in Labor Absorption in 9 Regencies/Cities of Bali Province Year 2007-2015

Regencies/Cities	$IG_{\_}$	$G_{\_}$	Characteristic
Jembrana	0.04	0.17	Not pro-poor yet
Tabanan	0.01	0.19	Not pro-poor yet
Badung	0.04	0.19	Not pro-poor yet
Gianyar	0.02	0.17	Not pro-poor yet
Klungkung	0.00	0.15	Not pro-poor yet
Bangli	-0.01	0.14	Anti poor
Karangasem	0.01	0.18	Not pro-poor yet
Buleleng	0.01	0.19	Not pro-poor yet
Denpasar	0.04	0.12	Not pro-poor yet

Source: Appendix 3
Note: $IG_{\_}$=Pro-poor growth index in labor absorption; $G_{\_}$= Actual growth

Figure 4 informs that in 2007 Bangli Regency owned the lowest pro-poor growth index in absorbing labors; it is valued negatively and thus categorized anti-poor. Meanwhile, in 2010 Denpasar City had better condition regardless it's being classified not pro-poor yet with highest actual growth. In 2007, Jembrana Regency was the only region which once performed pro-poor growth in absorbing the labors.



Source: Statistics of Bali Province, 2008-2016 (processed data)
Note:

IG < 0 means anti-poor growth
IG>G_g means not pro-poor growth yet
0<IG<G_g means pro-poor growth

Figure 4. Comparison Between Economic Growth and Pro-Poor Growth Index in Labor Absorption in Bali Province 2007-2015

The tendency of pro-poor growth in labor absorption is quite different from that in poverty and inequality reduction. Regions with agriculture leading sector tend to have anti-poor growth in absorbing the labors. On the contrary, those with high tourism potentials have better condition although they do not fully perform pro-poor growth.

Khamis (2005) researched Argentina to examine the dynamic correlation among labor market, poverty, disparity, and pro-poor growth. The result of the analysis shows that several economic sectors in the country, such as manufacture, service, construction, and transportation, can absorb labors and even reduce the poverty level, while other sectors do not give similar influence. Another research was conducted by Selim (2006) in Bangladesh, Bolivia, and Ethiopia. The result of the study reveals that the anti-poor occurring in Bolivia in 1991-1999 was the result of low employment intensity, which increased in line with the economic growth; meanwhile, the growth was not followed by other sectors having high employment intensity.

The result of this study indicates that tourism sector in Bali plays a very vital role. Some regions like Badung, Gianyar, and Denpasar City own rich tourism potentials while other regions still struggle in the agriculture sector whose contribution decreases year by year. Tourism potentials can reflect open job opportunity. The people living in a region with low tourism potential usually migrate to another area with more prospective tourism. It is a common phenomenon especially in Bali Province in which the distance among regions is not so far that people only need little time to reach different regencies/cities.

Conclusion

About the result on the dynamics of pro-poor growth in poverty reduction, inequality reduction, and labor absorption, it can be concluded that the regions with agriculture leading sector like Jembrana, Karangasem, and Buleleng end to pro-poor in reducing both poverty and inequality. Meanwhile, Tabanan, Klungkung, and Bangli regencies which benefit from agriculture sector as their main economic driving source have not

performed pro-poor growth yet in reducing poverty and inequality. In contrast, Badung, Gianyar, and Denpasar City own anti-poor growth in reducing the two factors.

Regarding labor absorption, it is evident that the regions with agriculture leading sector, such as Jembrana, Tabanan, Bangli, Karangasem, and Buleleng, have anti-poor growth in absorbing the labors. Other regions like Badung, Gianyar, and Denpasar City have a better condition although they are not pro-poor yet in absorbing the labors. This indicates that high tourism potential in a region of Bali Province provides wide job opportunity not only for the indigenous people of the region but also for anybody coming from the surrounding regions.

Most regions in Bali Province have such minimum tourism potentials that they still rely on agriculture and fishery sectors. The increase of tourism sector in some regions might be used to develop the agriculture and fishery sectors. The local government is expected to facilitate the agriculture and fishery products to be endorsed, promoted, and used in various accommodations and restaurants situating around the visitors' tourism destination. By doing so, labor absorption might take place not only in tourism sector but also other sectors, especially agriculture which has been recently neglected. When labor absorption occurs, poverty level can be reduced, and the people's income distribution is likely to be equal.

References

Ali, I. (2007). Inequality and the imperative for inclusive growth in Asia. *Asian Development Review*, *24*(2), 1–16.

Aoyagi, C., & Ganelli, G. (2015). Journal of Asian Economics Asia's Quest for Inclusive Growth Revisited. *Journal of Asian Economics*, *40*, 29–46. https://doi.org/10.1016/j.asieco.2015.06.005

Asian Development Bank. (2008). *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank 2008-2020*. Mandaluyong City, Philippines: Asian Development Bank. Retrieved from https://www.adb.org/sites/default/files/institutional-document/32121/strategy2020-print.pdf

Asian Development Bank (ADB). (1999). *Fighting Poverty in Asia and the Pacific: The Poverty Reduction Strategy*. Manila. Retrieved from http://www.lcgbangladesh.org/PovertyIssues/reports/ADB-1999-PRS.pdf

Azwar. (2016). Inclusive Growth in South Sulawesi Province and Factors That Affect It. *Jurnal BPPK*, *9*(2), 216–242.

Besley, T., Burgess, R., & Esteve-Volart, B. (2005). *Operationalising Pro-Poor Growth: India Case Study* (Vol. 4). London. Retrieved from https://www.lse.ac.uk/asiaResearchCentre/_files/propoorgrowth.pdf

Duclos, J.-Y., & Verdier-Chouchane, A. (2010). *Analyzing Pro-Poor Growth in Southern Africa: Lessons From Mauritius And South Africa* (No. 115). Tunis, Tunisia. Retrieved from https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/WORKING PAPER 115 .pdf

Grosse, M., Harttgen, K., & Klasen, S. (2008). Measuring Pro-Poor Growth in Non-Income Dimensions. *World Development*, *36*(6), 1021–1047. https://doi.org/10.1016/j.worlddev.2007.10.009

Kakwani, N., & Pernia, E. M. (2000). What is Pro-poor Growth? *Asian Development Review*, *18*(1), 1–16.

Kakwani, N., & Son, H. H. (2008). Poverty Equivalent Growth Rate. *The Review of Income and Wealth*, *54*(4), 643–656.

Kanbur, R., & Rauniyar, G. (2009). *Conceptualizing Inclusive Development : With Applications to Rural Infrastructure and Development Assistance*. *IED Occasional Paper*. Manila.

Khamis, M. (2005). *Crisis and Recovery in Argentina: Labor Market, Poverty, Inequality and Pro-Poor Growth Dynamics* (No. Ibero-America Institute for Economic Research). *Ibero America Institute for Econ. Research (IAI) Discussion Papers 135*.

Klasen, S. (2008). Economic Growth and Poverty Reduction: Measurement Issues using Income and Non-Income Indicators. *World Development*, *36*(3), 420–445. https://doi.org/10.1016/j.worlddev.2007.03.008

Klasen, S. (2010). *Measuring and Monitoring Inclusive Growth : Multiple Definitions, Open Questions, and Some Constructive Proposals*. Manila.

Nafziger, E. W. (2006). *Economic Development*.

National Development Planning Agency. (2004). Presidential Regulation Number 7 Of 2005 on The National Medium-Term Development Plan of 2004–2009. Retrieved from https://www.bappenas.go.id/files/9814/2099/2543/RPJMN_2004-2009.pdf

National Development Planning Agency. (2010). Presidential Regulation Number 5 Of 2010 on The National Medium-Term Development Plan of 2010 – 2014. Retrieved March 12, 2018, from https://www.bappenas.go.id/files/rpjmn/RPJMN 2010-2014.pdf

Pernia, E. M. (2003). Pro-poor Growth: What is It and How is It Important? *Asian Development Bank ERD Policy Brief No.17*.

Ravallion, M., & Chen, S. (2003). Measuring pro-poor growth. *Economics Letters*, *78*(1), 93–99. https://doi.org/10.1016/S0165-1765(02)00205-7

Saputra, P. M. A. (2014). Technical efficiency and export performance: evidence for self-selection hypothesis from Indonesian manufacturing sector-level data. *International Journal of Economic Policy in Emerging Economies*, *7*(4), 383–398. https://doi.org/10.1504/IJEPEE.2014.066625

Sasongko, S. (2009). Economic Analysis and Trade of Agricultural Commodities of Regencies/Cities in East Java Province. *(Social Sciences)*, *21*(1), 87–94.

Selim, R. (2006). *Employment-Poverty Linkages and Pro-Poor Growth: A Synthesis Peper Based on Country Studies of Bangladesh, Bolivia, and Ethiopia*.

Son, H. H., & Kakwani, N. (2008). Global Estimates of Pro-Poor Growth. *World Development*, *36*(6), 1048–1066. https://doi.org/10.1016/j.worlddev.2007.10.002

Statistics Indonesia. (2016). *Bali Province in Figures*. Denpasar: Statistics of Bali Province. Statistics of Bali Province. (2016). *Bali Province in Figures*.

World Bank. (2009). What is Inclusive growth? PRMED Knowledge Brief. Retrieved from http://www.wider.unu.edu/events/research-presentations/seminars/en_GB/25-01-2012/_files/87003786608443555/default/UNU-WIDER Presentation What is Inclusive Growth.pdf

World Bank. (2013). *A Stronger, Connected, Solutions World Bank Group: An Overview of the World Bank Group Strategy*. Retrieved from https://openknowledge.worldbank.org/bitstream/handle/10986/16093/32813_ebook.pdf?sequence=5&isAllowed=y

World Bank. (2016). *Poverty and Shared Prosperity 2016: Taking on Inequality*. Washington DC: World Bank. https://doi.org/10.1596/978-1-4648-0958-3

Appendix

Appendix 1: Pro-Poor Growth Index in Poverty Reduction

Regencies/ Cities	Year					
	2007		2008		2009	
	IG_p	G_g	IG_p	G_g	IG_p	G_g
Jembrana	0.05**	0.11	0.14**	0.16	0.12**	0.13
Tabanan	0.11*	0.11	0.15*	0.15	0.10**	0.11
Badung	0.12**	0.13	0.16**	0.17	0.19**	0.21
Gianyar	0.12**	0.13	0.15**	0.16	0.13**	0.14
Klungkung	0.09**	0.11	0.15*	0.15	0.09**	0.13
Bangli	0.10**	0.11	0.13**	0.14	0.14*	0.14
Karangasem	0.06**	0.12	0.15**	0.16	0.13**	0.14
Buleleng	0.11*	0.11	0.14**	0.15	0.13*	0.13
Denpasar	0.11**	0.13	0.15**	0.17	0.07**	0.13

Regencies/ Cities	Year					
	2010		2011		2012	
	IG_p	G_g	IG_p	G_g	IG_p	G_g
Jembrana	0.09**	0.55	0.08**	0.11	0.11***	0.10
Tabanan	0.09**	0.72	0.08**	0.10	0.09**	0.10
Badung	0.14**	0.48	0.08**	0.12	0.10**	0.15
Gianyar	0.13**	0.53	-0.07****	0.11	0.15***	0.11
Klungkung	0.11**	0.38	0.09**	0.10	0.08**	0.10
Bangli	0.10**	0.26	0.09**	0.10	0.10*	0.10
Karangasem	0.11**	0.61	0.09**	0.10	0.09**	0.10
Buleleng	0.11**	0.71	0.07**	0.11	0.07**	0.11
Denpasar	0.12**	0.64	0.09**	0.11	0.11**	0.13

Regencies/ Cities	Year					
	2013		2014		2015	
	IG_p	G_p	IG_p	G_g	IG_p	G_g
Jembrana	0.15***	0.11	0.59***	0.15	0.12**	0.13
Tabanan	0.08**	0.12	0.84***	0.15	0.13*	0.13
Badung	-0.24****	0.16	0.55***	0.15	0.09**	0.11
Gianyar	0.09**	0.12	0.52***	0.15	0.10**	0.11
Klungkung	0.20***	0.11	0.42***	0.15	0.12*	0.12
Bangli	0.09**	0.12	0.31***	0.15	0.12**	0.13
Karangasem	0.24***	0.12	0.61***	0.15	0.13*	0.13
Buleleng	0.18***	0.12	0.80***	0.15	0.13*	0.13
Denpasar	-0.37****	0.13	0.67***	0.15	0.10**	0.12

Note:IG_p=Pro-poor growth index in poverty reduction; G_g= Actual growth

*) Neutral growth **) Not pro-poor growth yet***) Pro-poor growth ****) Anti poor growth

Appendix 2: Pro-Poor Growth Index in Inequality Reduction

Regencies/ City	Year					
	2007		2008		2009	
	IG_{in}	G_g	IG_{in}	G_g	IG_{in}	G_g
Jembrana	0.05**	0.11	0.14**	0.16	0.12**	0.13
Tabanan	0.11*	0.11	0.15*	0.15	0.10**	0.11
Badung	0.12**	0.13	0.16**	0.17	0.19**	0.21
Gianyar	0.12**	0.13	0.15**	0.16	0.13**	0.14
Klungkung	0.09**	0.11	0.15*	0.15	0.09**	0.13
Bangli	0.10**	0.11	0.13**	0.14	0.14*	0.14
Karangasem	0.06**	0.12	0.15**	0.16	0.13**	0.14
Buleleng	0.11*	0.11	0.14**	0.15	0.13*	0.13
Denpasar	0.11**	0.13	0.15**	0.17	0.07**	0.13

Regencies/ City	Year					
	2010		2011		2012	
	IG_{in}	G_g	IG_{in}	G_g	IG_{in}	G_g
Jembrana	0.09**	0.55	0.08**	0.11	0.11***	0.10
Tabanan	0.09**	0.72	0.08**	0.10	0.09**	0.10
Badung	0.14**	0.48	0.08**	0.12	0.10**	0.15
Gianyar	0.13**	0.53	-0.07****	0.11	0.15***	0.11
Klungkung	0.11**	0.38	0.09**	0.10	0.08**	0.10
Bangli	0.10**	0.26	0.09**	0.10	0.10*	0.10
Karangasem	0.11**	0.61	0.09**	0.10	0.09**	0.10
Buleleng	0.11**	0.71	0.07**	0.11	0.07**	0.11
Denpasar	0.12**	0.64	0.09**	0.11	0.11**	0.13

Regencies/ City	Year					
	2013		2014		2015	
	IG_{in}	G_g	IG_{in}	G_g	IG_{in}	G_g
Jembrana	0.15***	0.11	0.35***	0.15	0.05**	0.13
Tabanan	0.08**	0.12	0.61***	0.15	0.05**	0.13
Badung	-0.24****	0.16	0.25***	0.15	0.04**	0.11
Gianyar	0.09**	0.12	0.29***	0.15	0.05**	0.11
Klungkung	0.20***	0.11	0.19***	0.15	0.05**	0.12
Bangli	0.09**	0.12	0.31***	0.15	0.12**	0.13
Karangasem	0.24***	0.12	0.37***	0.15	0.05**	0.13
Buleleng	0.18***	0.12	0.56***	0.15	0.05**	0.13
Denpasar	-0.37****	0.13	0.43***	0.15	0.04**	0.12

Note:IG_{in}=Pro-poor growth index in inequality reduction; G_g= Actual growth

*) Neutral growth **) Not pro-poor growth yet***) Pro-poor growth ****) Anti poor growth

Appendix 3: Pro-Poor Growth Index in Labor Absorption

Regencies/ City	Year					
	2007		2008		2009	
	IG_{em}	G_g	IG_{em}	G_g	IG_{em}	G_g
Jembrana	0.273***	0.11	0.073**	0.16	-0.023****	0.13
Tabanan	0.040**	0.11	-0.009****	0.15	0.000**	0.11
Badung	0.006**	0.13	0.003**	0.17	0.020**	0.21
Gianyar	0.067**	0.13	0.004**	0.16	0.033**	0.14
Klungkung	0.028**	0.11	0.029**	0.15	0.005**	0.13
Bangli	-0.124****	0.11	0.031**	0.14	-0.010****	0.14
Karangasem	-0.010****	0.12	0.062**	0.16	-0.025****	0.14
Buleleng	0.067**	0.11	0.006**	0.15	0.048**	0.13
Denpasar	-0.015****	0.13	0.029**	0.17	0.013**	0.13
Regencies/ City	Year					
	2010		2011		2012	
	IG_{em}	G_g	IG_{em}	G_g	IG_{em}	G_g
Jembrana	-0.005****	0.55	0.073**	0.11	0.019**	0.10
Tabanan	-0.050****	0.72	0.009**	0.10	0.062**	0.10
Badung	0.272**	0.48	-0.013****	0.12	0.049**	0.15
Gianyar	0.005**	0.53	-0.041****	0.11	0.030**	0.11
Klungkung	-0.011****	0.38	-0.111****	0.10	0.037**	0.10
Bangli	-0.047****	0.26	0.050**	0.10	0.019**	0.10
Karangasem	-0.021****	0.61	0.031**	0.10	0.014**	0.10
Buleleng	-0.103****	0.71	0.001**	0.11	0.047**	0.11
Denpasar	0.278**	0.64	-0.049****	0.11	0.016**	0.13
Regencies/ City	Year					
	2013		2014		2015	
	IG_{em}	G_g	IG_{em}	G_g	IG_{em}	G_g
Jembrana	-0.099****	0.11	0.041**	0.15	-0.012****	0.13
Tabanan	-0.011****	0.12	0.015**	0.15	0.003**	0.13
Badung	0.007**	0.16	-0.010****	0.15	0.047**	0.11
Gianyar	-0.012****	0.12	0.005**	0.15	0.071**	0.11
Klungkung	0.029**	0.11	0.012**	0.15	0.027**	0.12
Bangli	-0.013****	0.12	0.025**	0.15	-0.048****	0.13
Karangasem	0.014**	0.12	0.000**	0.15	0.007**	0.13
Buleleng	-0.019****	0.12	-0.029****	0.15	0.027**	0.13
Denpasar	0.009**	0.13	0.066**	0.15	0.028**	0.12

Note:IG_{em}=Pro-poor growth index in labor absorption; G_g= Actual growth

*) Neutral growth **) Not pro-poor growth yet***) Pro-poor growth ****) Anti poor growth