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Effect of industrial Estate on Poverty in Bekasi Regency, West Java, Indonesia

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ABSTRACT: Bekasi Regency as one of the capital's buffer zones, which is directly adjacent to DKI Jakarta, has experienced very rapid development. Many factory factories stand and industrial areas are opened. The agricultural land available in many Bekasi districts has changed its function to become an office area, industrial area and land for property. Bekasi Regency which was originally an agricultural area has now become a modern industrial area. This condition provides more value for the economic growth of Bekasi regency. The industrialization process is believed to provide positive energy for the economic performance of the Bekasi regency region. The realization of the industrialization is the opening of several industrial estate areas. Industrialization provides greater employment opportunities, stimulates growth in the transport and service sector. So that economic growth increases and ultimately can reduce the amount of poverty in the area.

KEYWORDS: industrial estate, poverty, Bekasi district

I. INTRODUCTION

Industrialization changed the structure of the regional economy which initially relied on the agricultural sector to shift to the non-agricultural sector. Ideally the policy of transferring the agrarian sector to the industrial sector will have an impact on economic growth because the establishment of new factory factories will create broader employment opportunities, encourage the trade and services sector and ultimately have an impact on the welfare of the population.

The issue of poverty in the midst of industrialization has been echoing in recent years. One of them is poverty that occurs in Bekasi. One of the headlines in the national newspaper raised in the news that in 2013-2015, the number of poor people in Bekasi, the increasing number of new industries that stood in Bekasi districts. Poverty is a form of inability to fulfill the basic needs of food and non-food needs, which are measured from the side of spending. Many residents of the Bekasi area are categorized as poor. This is irony when more and more industries stand in the Bekasi area, but they have no impact on reducing the number of poor people.

There have been several studies that discuss industrial shielding associated with economic growth. The study of these studies is more likely to be developing countries as objects of analysis. Like CisseNdiaya and Kv Luan's industrialization research on economic growth in Senegal. From their research it can be concluded that industrialization has significantly provided a positive role for Senegal's economic growth from 1960-2017 [1]. However, this did not happen in other parts of Africa as the results of research conducted by Bennett KenechukwuObioma and colleagues [2] that industrialization in Nigeria did not significantly influence economic growth, although the relationship between industrialization and economic growth has a positive direction.

Besides the two studies mentioned above, there are also studies that try to discuss the linkages between industrial estates and poverty. Industrial estates can create stimuli for economic stimulation that are very beneficial for the poor and marginalized. One of them is the industrial area can create jobs and eventually will improve welfare. [3]

Bekasi Regency as one of the areas directly adjacent to DKI Jakarta has a relatively high economic development potential, so that this area becomes the destination of the owners of capital to develop their business. The economic structure, which previously relied on agriculture, now tended towards industrialization. The Bekasi Kabunpaten is one of the areas in West Java that has a relatively large industrial area. This paper tries to discuss how big the influence of industrial estates is as a way to increase the role of the industrial sector in Bekasi regency's domestic regional acceptance of the poverty rate of Bekasi residents.

II.   METHOD

This paper is written by using descriptive analysis research methods and quantitative. By looking at the phenoma phenoma that exists in the communities around the industrial estate, in Bekasi, how much is their level of welfare, do they benefit from the existence of industrialization around their area. With the hypothesis that shielding industry should be related to poverty, it means that the greater the role of industrialization will be able to reduce poverty. To answer this question, a partial correlation test was conducted to find out how the relationship between industrialization and poverty. How big is the influence of industrialization on the Gross Regional Domestic Product (GRDP) of Bekasi District. Industrialization in this paper is interpreted as an activity to change or make an item or service so that it has added value. The manifestation of industrialization was marked by the increasing opening of new areas as industrial estates which were previously agricultural land. So that more factories stand, the less available land for agriculture.

The method of data collection used is a literature study that collects secondary data formally issued by the Central Bureau of Statistics, the Sosisal Service of Bekasi district and other relevant agencies. Besides that, there was also a direct interview with a sample of several households around the Bekasi district to find out how they responded to the opening of industrial estates around their homes.

To answer the question how is the link between industrialization, poverty and regional acceptance simple linear regression test. By using the hypothesis that industrialization is positively related to economic growth and poverty. For industrialization data taken from the performance of the processing industry sector, for data on regional revenues taken from the Bekasi Regional Gross Regional Domestic Product based on constant prices, while poverty data was taken from how many poor households in Bekasi district.

III.   RESULT AND DISCUSION

The number of poor people in Bekasi district has undergone a very fluctuating change. While the number of industrial growth generally shows a trend that tends to increase. Even one of the largest industry establishments in Bekasi Regency, the Cikarang industrial area is claimed to be one of the largest industrial areas in Southeast Asia. This condition is ideally a very beneficial thing, because with the many industries that exist, job creation will increase and can absorb more labor. Will, increase purchasing power and ultimately increase economic growth. The region's gross regional domestic product numbers tend to increase where the economic driving force is the manufacturing industry sector. Does this also have an impact in reducing the number of poor people. This paper tries to explore how influential industrialization has affected poverty in Bekasi regency.

3.1. Industrialization (industrial area)

The purpose of economic development carried out by a country or government is to achieve the level of welfare of its citizens. Economic development will create economic growth, both from the demand and supply side. From the demand side it will increase purchasing power by providing a variety of alternative product choices. While from the supply side, it will provide added value for production factors.

The industrialization strategy has become the main choice for some countries in the world to improve their economic growth. Regardless of the conditions and conditions faced by each country, it is certainly different. There is even a meaning that economic development as if identical with the process of industrialization. This strategy is considered successful in making the transformation of the economic structure from primary (agriculture) to sekundr (industry and services). History also notes that some countries that have now succeeded in improving the welfare of their citizens, have made industrialization strategies in the process of development. [4]

Industrialization is an economic policy with more emphasis on the role of the secondary sector (industry and services) compared to the role of the primary sector (agriculture). The agricultural sector, often called the traditional sector, slowly starts to lead to a modern economy dominated by the non-agricultural sector. industry and services. The industrialization process is also interpreted by an introduction to technological innovation, specialization or division of labor. Production processes are no longer traditional, so they are expected to be more efficient. So what is meant by industry in this writing is an activity to change or make an item or service so that it has added value.

Industrial area development is one of the policies to increase the role of the industrial sector. Generally building industrial estates requires considerable capital and in fact local governments tend to invite investors or large capital owners to invest. This is due to the limited capital owned by the government. Indonesia as a developing country has tried to use industrial strategy in the process of economic development. Several policies to support the formalisation process have begun to be implemented, one of which is to develop industrial fields, in which an industrial area consists of several manufacturing industries that provide mutual value for each industry's output. In each industrial area, they can utilize facilities and infrastructure that are complementary, so that they can reduce the operational costs of each industry.

3.2. Poverty

Poverty is a classic problem faced by many countries in the world. Poverty is characterized by a person's inability to fulfill his basic needs (food and non-food). The boundary line for someone who can survive in fulfilling his life needs is called the poverty line. Meanwhile, if someone earns below the poverty line, then it is included in the poor group. The poverty line standards for each region will be different, as the minimum income received by each region will be different. Minimum wages for provinces / regions reflect the standard of income that must be obtained to be said to be a decent life. If the income received is below the provincial minimum wage then it is included in the poor group.

It can be caused by several factors. It can be because structurally it means that someone cannot take part in the structure of economic activity, which is due to limited skills and education, or cultural poverty, poverty related to cultural elements and habits of a society.

As with other countries in the world, the issue of poverty in Indonesia is still a serious problem. There have been several strategies to reduce poverty, such as social assistance in the form of the Family Hope Program (PKH), which provides cash assistance to families with low economic capacity. There is also social assistance for scholarships, then village funds, and People's Business Credit or KUR. However, the programs run by the government in reducing poverty are materially oriented and have not touched the atitude aspect or attitude of the poor. Not empowering the potential of these poor people. The current alleviation program is more short-term. While for sustainability, it is very dependent on the budget owned and committed by the government and the owners of capital[5]

3.3 Industrialization and Poverty in Bekasi Regency

Bekasi Regency is geographically included in the province of West Java. With a total area of 127,388 ha. The number of accidents in the regency consists of 23 sub-districts, the city of regency government is in the central district of Cikarang. The following is the subdistrict data in the region of Bekasi

No.	District (Ha)	Total Area (Ha)	Percentage
	Table 1 Total Area by Sub district in Bekasi Regency		
1.	Setu	6.216	4.88
2.	SerangBaru	6.380	5.01
3.	CikarangPusat	4.760	3.74
4.	Cikarang Selatan	5.174	4.06
5.	Cibarusah	5.039	3.96
6.	Bojong Mangun	6.006	4.71
7.	CikarangTimur	5.131	4.03
8.	KedungWaringin	3.153	2.48
9.	Cikarang Utara	4.330	3.40
10.	KarangBahagia	4.610	3.62
11.	Cibitung	4.530	3.56
12.	Cikarang Barat	5.369	4.21
13.	Tambun Selatan	4.310	3.38
14.	Tambun Utara	3.442	2.70
15.	Babelan	6.360	4.99
16.	Tarumajaya	5.463	4.29
17.	Tambelang	3.791	2.98
18.	Sukawangi	6.719	5.27
19.	Sukatani	3.752	2.95
20.	Sukakarya	4.240	3.33
21.	Pebayuran	9.634	7.56
22.	Cabangbungin	4.970	3.90
23.	MuaraGembong	14.009	11.00
	KabupatenBekasi	127.388	100.00

Source:Central Bureau of Statistics 2017

of the 23 sub-districts in Bekasi district, Muaragmbong sub-district is a sub-district with the largest land area, consisting of agricultural and coastal areas bordering the bay of Jakarta.

While the sub-districts which are widely used as industrial estate areas are Cibitung sub-district, South Tambun, West Cikarang, North Cikarang, East Cikarang. While Cikarang Center is the district capital..

There are still a number of other sub-districts where land use is still dominated by agricultural land, both paddy fields and agricultural land used not for rice fields. Among others, Pebayuran sub-district, sub-district likes fragrant, District likes Tani, Tarumajaya, Karang senang and kecamatan kedung waringin .

Bekasi Regency has a variety of economic potential as superior potential starting from the industrial, trade, services, agriculture, mining and tourism sectors. From the various potentials, the industrial sector has provided the largest contribution to the reception of Bekasi District. Not only for Bekasi regency, but in the province, the Bekasi manufacturing sector contributes more than 30% to West Java province revenues from the manufacturing sector in 2010-2014 [6]

The industrial sector seems to be a motorbike for the economy of Bekasi district. The construction of a new factory has reduced the amount of available agricultural land. Many landowners are willing to sell their land for parik establishment and for property land. The consequence is that the contribution of agriculture to the receipt of district GDP has begun to decrease. Many factories have emerged with large scale stands and agricultural areas that have turned into residential land. For owners of capital this condition is advantageous because the costs to be paid are relatively cheap and permits are not difficult. Moreover, the cultural conditions of the surrounding community with relatively high levels of education make it easy to free up the land they have for the establishment of new factories and plant expansion and for residential land. the industry is not difficult to free it, In general, the land they have is agricultural land.

Bekasi district government realizes that their financial condition is not possible to drive industrialization with its own owned mode so that some things are made that make investors interested and comfortable so they finally want to invest in Bekasi, one form of stimulation is the creation of an industrial area which is expected to make more foreign investors invest. at present there are at least 12 (twelve) large industrial zones operating in bekasi district, even now an industrial area that is claimed to be the largest industrial area in Southeast Asia. Among other things Jababeka industrial area, Cikarang industrial area, MM200 industrial area etc. As shown in table 2 below.

Table 2 Industrial areas in Bekasi district

No.	Name of Industrial Estate	Administrators
1.	Jababeka Region	PT. Jababeka , tbk
2.	Jababeka Region II	PT. Jababeka, tbk
3.	MM 2100 industrial town	PT. BekasiFajarIndustri Estate
4.	MegapolisManunggal Industrial Estate	PT. Manunggal industrial development
5.	LippoCity Development	PT. LippoCikarang
6.	East Jakarta Industri Park (EJIP)	East Jakarta Industrial Park
7.	Hyundai Inti Development	Bekasi Inter Industrial Rstate (BIIE)
8.	Marunda Center	PT. Tegar Prima Jaya
9.	Patria Area, Manunggal Jaya	PT. Patria Manunggal Jaya
10.	Indonesian integrated industrial area China	KITIC
11.	Gobel Dharma Nusantara industrial area	PT. Gobel Dharma Nusantara
12.	Greenland International City Region	PT.Puradeta lestari

Source: Regional Planning Board of Bekasi Regency 2014

Some industrial areas in Bekasi Regency are also used as industrial tourist destinations, where many school children visit factory factories in the area, to see how the production process of an item is made. Usually at the end of the visit they will be given a discount to buy the manufactured goods, such as a beverage and food factory. This industrial tourism is also expected to open visitors' thinking horizons regarding the processing industry.

If we refer to some national newspaper reports, which raise the news of poverty in Bekasi, poverty in the area is surrounded by industrial estates. It was as if the industrialization with the industrial region was the cause of the poverty rate of the population in Bekasi regency. The following are data on how many poor households in Bekasi are

No.	Sub-district	Jumlah
	Table 3: Number of Poor families in Bekasi Regency per District in 2017	
No.	**Sub-district**	**Jumlah**
1.	Pebayuran	11.343
2.	Babelan	7.863
3.	Karangbungin	5.984
4.	Cibitung	3.187
5.	Sukawangi	3.590
6.	Cikarang Barat	2.910
7.	Bojong Mangun	1.426
8.	CikarangTimur	5.571
9.	Tambun Utara	9.656
10.	Sukatani	7.190
11.	Tambelang	4.943
12.	Cibarusah	2.950
13.	CikarangPusat	2.980
14.	Cikarang Selatan	1.508
15.	MuaraGembong	-
16	Cikarang utara	3.066
17	Tambun selatan	1.508
18	Serang Baru	4.267
19	Suka Karya	4.461
20	Kedung waringin	3.745
21	Setu	4.970
22	Tarumajaya	4.368
23	Karang bahagia	5.984

Source: Bekasi Regency Central Bureau of Statistics

The number of poor households is mostly found in Pebayuran sub-district and north Tambun sub-district. The district with the largest population is in Tambun Utara sub-district with a total of 219,879 [7] inhabitants. Districts with the highest number of poor households generally have a style of economic structure which still relies on the primary sector, agriculture as the main source of livelihood.

While in some sub-districts where there are industrial estates, the household life of the surrounding community is generally relatively good compared to the sub-districts that do not have industrial estates. However, it does not automatically mean that sub-districts with industrial estates are not found by poor households. Based on the results of direct interviews with several households around the industrial area, said that the more factories were established, they did not benefit because their skills and education did not support them to be able to work in factory factories which were standing in their area. Even though there are those who benefit from those who own land that can be used as a food stall business for factory workers or open rental or boarding houses for factory workers.

From the above data there is a pattern of distribution of poor households in Bekasi regency, that generally sub-districts where the land area is still dominated by agricultural land are found that the number of poor households in the area is actually relatively more compared to the areas that dominate land use for the non-agricultural sector.

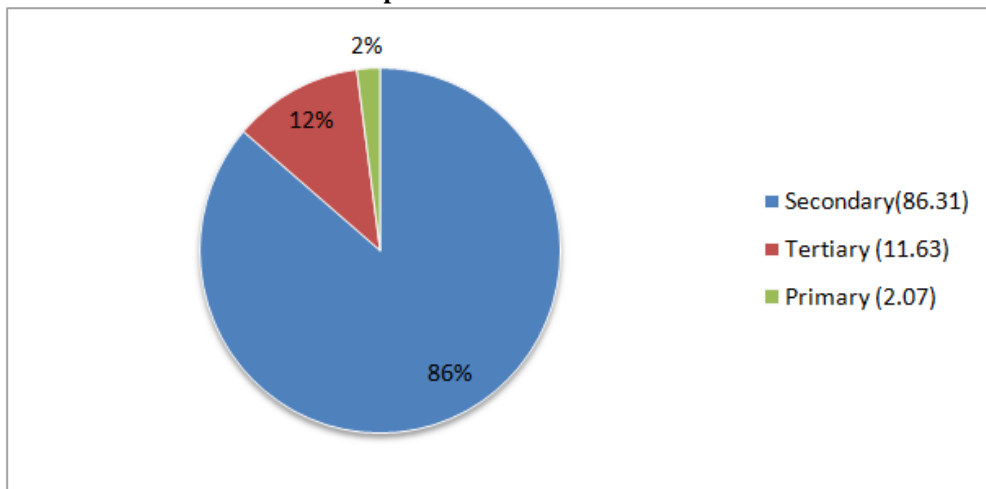**3.3.1.Transformation of the Economic Structure of Bekasi Regency**

The process of economic development in the city of Bekasi has led to changes in the economic structure of the traditional sector, which is characterized by the dominance of the agricultural sector, now turning into a modern economy by relying on the manufacturing and service sectors. There has been a change in the transformation of the economic structure, initially the agricultural sector (primary) dominates the gross domestic product of Bekasi district, now its role has begun to diminish, replaced by the secondary and tertiary sectors. The secondary sector includes processing industries and services. The manufacturing industry sector covers all processing industries with small to large scale and with the use of medium to high technology technology

Table 4: Transportation of the Economic Structure of Bekasi Regency

Sektor	2011	2012	2013	2014	2015
Primer	8.840.434	7.925.626	6.904.166	6.605.117	5.083.590
	5,13	4,21	3,35	2,9	2,07
Sekunder	144.756.090	158,886.174	175.673.412	195.396.468	5.083.590
	83,96	84,44	85,25	85,86	86,31
Tersier	18.810.296	21.363.624	23.491.834	25.579.949	28.605.899
	10,91	11,35	11,4	11,24	11,63

Source: Bekasi Regency Central Bureau of Statistics

Graph 1 Economic Structure

3.3.2 Industrialization, Poverty and Regional Acceptance

To see how the link between industrialization and poverty and regional revenues, a linear regression test model was made. For this reason a linear model of industrialization is created between industrialization, poverty and regional revenue. Assuming that industry has a positive impact on reducing poverty and increasing regional revenues, by using a model; $Y = a + b1Xi + b2X2$, where Y is poverty, X1 GRDP and X2 are processing industries after statistical tests are carried out, the following results are obtained;

a.   a. Correlation between industrialization is 0.789 with negative direction. It means that if there is an increase in the industrial sector, poverty will decrease

b.   b. Industrial co-installation of district revenue is 1,000 with positive direction. Increasing the industrial sector will increase regional revenues.

c.   c. equation $Y = 133157.08 + 14.73X1 - 13.94X2$

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	,786[a]	,617	,590	10587,56018	,617	22,595	1	14	,000

a. Predictors: (Constant), industri

b. Dependent Variable: kiiskinan

Correlations

		kemiskianan	Industri	PDRB
Pearson Correlation	kemiskianan	1,000	,786	,789
	Industri	,786	1,000	1,000
	PDRB	,789	1,000	1,000
Sig. (1-tailed)	kemiskianan	.	,000	,000
	Industri	,000	.	,000
	PDRB	,000	,000	.
N	kemiskianan	16	16	16
	Industri	16	16	16
	PDRB	16	16	16

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	PDRB, Industri[b]	.	Enter

a. Dependent Variable: kemiskianan

b. All requested variables entered.

The development of industrial estates as a manifestation of the program of industrialization in Bekasi district has significantly succeeded in increasing the revenue of the Bekasi district. As in table 5 below

Table 5.		The GRDP of The Bekasi Regency, Based on The Constant Prices 2010, by The Industrial Origin (Million IDR), 2015-2017		
	Industrial Origin	2015	2016*)	2017*)
A.	Agriculture, Forestry and Fishery	2.338.145,9	2.479.075,4	2.264.023,7
B.	Mining and Quarrying	2.687.150,1	2.431.536,3	2.405.710,6
C.	Manufacturing Industry	161.947.397,1	169.825.949,4	180.177.393,6
D.	Electricity and Gas Supply	1.510.052,7	1.596.672,3	1.238.050,1
E.	Water Supply	47.736,3	51.260,0	54.658,6
F.	Construction	13.014.076,2	13.674.930,5	14.665.275,9
G	Trade, Car and Motorcycle Repair Shop	11.928.477,0	12.440.982,2	13.187.646,1
I.	Transportation and Warehousing	2.051.719,4	2.253.647,4	2.382.553,2
III.	Accommodation and Restaurant	935.694,6	1.020.656,1	1.106.110,3
	X. Information and Communication	2.117.846,2	2.440.087,2	2.697.246,5
	Y. Finance and Assurance	1.687.362,9	1.896.773,3	2.004.502,1
	Z. Real Estate	823.476,4	884.660,5	967.565,9
M,N.	Business Services	239.330,8	262.865,7	284.759,2
AA.	Government Administration, and Social Security	1.375.212,2	1.405.549,1	1.409.543,0
BB.	Education Services	1.695.157,5	1.861.815,3	2.023.226,2
CC.	Health Services and Social Activity	427.707,1	471.756,0	512.744,3
R, S, T, U. Other Services		1.123.851,2	1.230.147,5	1.344.915,5
	GRDP with Gas and Oil	205.950.393,5	216.228.364,2	228.725.924,8
	*) Revised Figure **) / Preliminary Figure Source : Bekasi Regency Central Bureau of Statistics			

Source:Central Bureau of Statistics 2018

The role of the manufacturing industry sector every year shows an increasing number. The economic machinery of Bekasi Regency is supported by the performance of the processing industry sector. The local government policy to continue to develop the industrial area has provided significant benefits to regional exploration. Because the Bekasi district government continues to try to provide some stimulus and ease of licensing to attract capital owners to take part in the industrialization process in Bekasi district.

While on the other hand industrialization is expected to reduce poverty rates, the effect is not as big as the increase in regional income in Bekasi. Industrialization has an indirect effect on reducing poverty, this is quite logical because poverty has many aspects, ranging from health education to culture and tradition. When many new factory factories were established which resulted in the opening up of employment opportunities, they could not automatically recruit residents around their own factories, because the ability of their human resources was not supportive, so the surrounding employment opportunities could not be utilized. Not infrequently in the end these jobs are actually filled by people outside Bekasi, such as DKI Jakarta and around. Employment created by the expansion of the industrial sector with the number of new company companies having a capacity, is not necessarily absorbed by local residents.

The benefits of industry are only appreciated by local residents who have vacant land to be used as boarding houses for factory employees and open food stalls. those who do not have the skills and land cannot take advantage of the information. As the results of direct interviews with some residents around the industrial office, those who generally farm when the land is taken for expansion of factories or for housing, cannot benefit. Even for informal work, many of them cannot join, with some limitations they have. This happened because of the condition of the people who previously farmed so that their expertise did not support them for a career in the company. This should be anticipated if the two sectors complement each other, the agricultural sector as a provider of inputs in the industrial sector. According to Yukha's research, there is a link between the agricultural sector and the processing industry. These two sectors are tradable real sectors which trigger the development of other economic activities, such as trade. [8] However, the conditions did not occur in Bekasi because building a new factory requires a lot of land, so that there is a trade-off between land use for industry and land for agriculture. This means that if the use of land for industry increases, the yield from the agricultural sector decreases, because the land used is reduced.

The Bekasi regency government has made several appeals to company companies around industrial estates that are generally large-scale companies to take care of the welfare of the people around the industrial estate through corporate social responsibility (CSR) programs, as one way to deal with the poverty of communities around the industrial estate

IV.   CONCLUSION

Industrialization as the driving force of economic development in the district has succeeded in significantly increasing. Bekasi's domestic products are in line with the increasing number of factory factories through the development of industrial estates. Although almost all capital from the opening of industrial estates uses private capital, due to limited funds owned by the district government.

Although the influence of industrialization on poverty is not as good as in the domestic product of Bekasi district, the fact is that the development of industrial sector still has a relatively better effect than the absence of industrial development, at least they benefit from various facilities and infrastructure provided by the industrial area. Stimulates warag to be able to adapt to the modern economy. Hanpir in several sub-districts where in the region there are industrial zones, the population rate is relatively smaller compared to the sub-districts that have no industrial area.

There has been a transformation of the economic structure of the Bekasi region, which initially shifted the primary sector to a shift with more emphasis on the secondary and tertiary sectors. Some sub-districts whose land is still relying on the sector (primary sector) the number of residents is relatively larger compared to sub-districts whose use of the land is more dominant in the non-agricultural sector (secondary sector)

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