

Assessment of the targeting and financing aspects of the RSBSA-AIP

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The Registry System for the Basic Sectors in Agriculture (RSBSA) is a registry of farmers, fisherfolk, and farm laborers established to serve as the basis for the programs and policies of the agriculture sector.¹ It serves as a targeting mechanism for the identification of beneficiaries for different agriculture-related programs and services of the government.² The total budget spent for this project amounted to PHP 1.302 billion.³

The Philippine Crop Insurance Corporation (PCIC) is among the first users of the RSBSA list for the implementation of its special program, the RSBSA-Agricultural Insurance Program (AIP), which started in 2014 through the help of the Department of Budget and Management (DBM).

This *Policy Note* assesses the targeting and financing aspects of the RSBSA-AIP and presents practical recommendations to ensure the optimal allocation of funds and the attainment of objectives of government programs in general, especially those in the agriculture sector.

The RSBSA-AIP

The RSBSA program—accurately known as RSBSA-AIP⁴—is a special program of the PCIC that provides full premium subsidy to subsistence farmers and fisherfolk and covers all insurance product lines.⁵ An agricultural producer is eligible to participate in the program if she/he is included in the RSBSA list, has an insurable interest on any agricultural asset (e.g., crop farm, fish farm, livestock farm, farm equipment), and does not receive premium subsidy for the foregoing insurance product from the local government unit.

¹ In this *Policy Note*, the “agriculture sector” refers to agriculture, forestry, and fishery.

² For basic information on the RSBSA (the registry, not the program), see Reyes and Gloria (2017). The authors also made an assessment of the list if used in targeting.

³ This is the total amount released by the DBM to the Philippine Statistics Authority for data collection and processing.

⁴ formerly known as follows: Agricultural Insurance for Farmers and Fisherfolk Registered in the RSBSA program, Priority Provinces Program, and Poorest of the Poor Provinces program

⁵ In the PCIC document, term insurance packages were not covered under the RSBSA-AIP, but the PCIC database includes RSBSA-AIP beneficiaries with term insurance.

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Prior to July 2015,⁶ farmers were able to insure up to seven hectares of their total crop area.⁷ However, the PCIC has reduced the maximum insurable crop area to three hectares since then.

For the self-financed clients, the cover ceiling for rice and corn is the same as that under the regular program⁸ during the first year of program implementation. However, the PCIC has decreased it to PHP 20,000 per hectare starting 2015.⁹ Meanwhile, the cover ceiling for the borrowing clients has remained equal to the actual amount of loan.

An agricultural producer can avail of more than one insurance product (e.g., rice, livestock, and

accident), provided that the amount of cover and the number of assets insured are within the required limit. The PCIC applies the existing premium rates, except for the high-value crop (HVC) insurance, where it applies the standard premium rate of 3 percent.¹⁰

Coverage and targeting

The RSBSA-AIP covers 75 DBM-identified priority provinces¹¹ and included around 330,000 and 430,000 beneficiaries in 2014 and 2015, respectively (Table 1). These accounted for around 70 percent of the total beneficiaries of the free insurance programs of the PCIC. Moreover, the majority of the program beneficiaries were crop growers, particularly rice farmers.

Because availment of more than one insurance product is allowed under the RSBSA-AIP, the total number of beneficiaries reported in Table 1 may be slightly overestimated. Unfortunately, the figure in either year was less than 11 percent of the 4.2 million¹² registered farmers and fisherfolk. Suppose the beneficiaries were completely different between 2014 and 2015, the program covered only 18.3 percent of the total number of agricultural producers listed in the RSBSA.

Out of the 1.96 million¹³ registered rice farmers,¹⁴ the study considered around 96–98 percent eligible for the RSBSA-AIP (Table 2), but the PCIC only enrolled 7 percent.¹⁵ Similarly, it only enrolled around 5 percent of eligible corn farmers under the RSBSA-AIP, regardless of the limit.

Given the low coverage of the program, the PCIC should have targeted its crop component at farmers with smaller farm sizes. In fact, the majority¹⁶ of rice and corn farmers listed in the RSBSA had very small farm parcels (Table 3).

⁶ as per Board of Director's (BOD) Resolution No. 2015-043 dated July 30, 2015

⁷ area devoted to rice, corn, and high-value crops or HVCs

⁸ PHP 50,000/hectare and PHP 40,000/hectare for hybrid rice and corn, respectively; PHP 41,000/hectare for inbred rice; and PHP 28,000/hectare for open-pollinated variety (OPV) corn

⁹ as per BOD Resolution No. 2015-008 dated January 30, 2015

¹⁰ For detailed information on other insurance products (i.e., limits of coverage per agricultural producer) and other features of the RSBSA-AIP, refer to the document titled "General information on Agricultural Insurance Program for farmers and fisherfolk listed in the Registry System for Basic Sectors in Agriculture (RSBSA)" available at <http://pcic.gov.ph/rsbsa/>.

¹¹ 20 provinces in Batch 1 and 55 provinces in Batch 2, excluding provinces in the Autonomous Region in Muslim Mindanao and areas in the National Capital Region

¹² This is part of the estimated 9.8 million registered agricultural workers, excluding farm laborers only, who accounted for around 3.29 million.

¹³ The study might have underestimated this figure as some HVC or corn farmers, for instance, were also engaged in rice farming, but the value of production was only small compared to the top three crops they were planting.

¹⁴ This refers to agricultural producers who reported that rice was among the top three crops (in terms of value of production) planted in their farmlands.

¹⁵ exactly 7.04 percent using the original maximum insurable crop area of seven hectares; 7.21 percent using the new maximum insurance crop area of three hectares

¹⁶ Sixty percent had farm parcels measuring 0.5 hectare and below, while 80 percent had farm parcels measuring one hectare and below.

Table 1. Distribution of PCIC program beneficiaries, by product line and by program type, 2014–2015

Product Line	Regular		Special				All Programs	
	2014	2015	RSBSA		Others		2014	2015
			2014	2015	2014	2015		
Rice	60,267	74,787	147,620	227,322	129,486	69,070	337,373	371,179
Corn	18,281	14,490	60,646	73,598	10,202	17,502	89,129	105,590
High-value crop	58,042	2,350	58,042	44,417	7,107	5,914	123,191	52,681
Livestock	63,487	6,574	63,487	82,223	7,002	16,176	133,976	104,973
Fisheries	80	35	400	610	1	6	481	651
Term insurance	168,484	239,752	-	-	35,348	56,230	203,832	295,982
Noncrop agricultural asset	2,002	1,894	4,553	6,595	2,186	4,042	8,741	12,531
All products	370,643	339,882	334,748	434,765	191,332	168,940	896,723	943,587

Note: The figures reported are not unique across type of crop; e.g., a rice farmer can also be a livestock/poultry raiser and may avail of the term insurance. Other special programs include the Department of Agrarian Reform (DAR)-AIP, DAR Agrarian Production Credit Program, Department of Agriculture (DA) High Yielding Technology Adoption, DA *Sikat Saka*, DA Weather-Adverse Rice Areas, National Irrigation Administration Third Cropping, and Yolanda. Source of basic data: PCIC (various years)

Between 1960 and 2012, larger farms (measuring around a hectare and over) had been fragmented into smaller ones (less than a hectare) (Figure 1), one of the notable outcomes of agrarian reform in the country¹⁷ (Adamopoulos and Restuccia 2014). It seems, however, the PCIC had not taken such information into account during the design of the RSBSA-AIP. As earlier stated, the maximum insurable area was seven hectares during the first year and then three hectares starting 2015.

Therefore, it is not surprising leakage problem may arise because of the lax eligibility requirements of the RSBSA-AIP. Although not highly significant in magnitude, beneficiaries with crop area exceeding both the old seven-hectare and the new three-hectare limits do exist (Table 4).

Table 2. Proportion of rice and corn farmers who were eligible for the RSBSA-AIP

Indicator	New Limit (Three hectares)		Original Limit (Seven hectares)	
	Rice	Corn	Rice	Corn
Number of farmers listed in the RSBSA	1,956,056	1,134,784	1,956,056	1,134,784
Number of farmers who were eligible to participate in the RSBSA-AIP	1,879,727	1,085,035	1,923,075	1,112,823
Percentage of farmers listed in the RSBSA who were eligible to participate in the RSBSA-AIP	96.1	95.6	98.3	98.1

Note: Eligible farmers were those with total size of crop farms not exceeding three hectares (new limit), or seven hectares (original limit).

Source of basic data: DBM (2012)

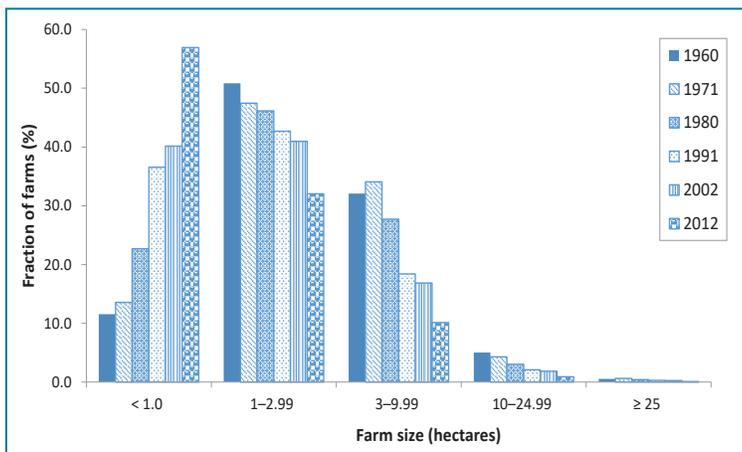
¹⁷ The Comprehensive Agrarian Reform Law of 1988 imposed a ceiling of five hectares on all landholdings and severe restriction on the transferability of the redistributed farmlands.

Table 3. Distribution of eligible rice and corn farmers listed in the RSBSA, by farm size

Farm Size (in hectares)	Rice	Corn
≤ 0.5	1,065,902	669,806
> 0.5–1.0	501,205	257,715
> 1.0–2.0	237,892	116,477
> 2.0–3.0	74,728	41,037
> 3.0–5.0	36,247	22,822
> 5.0–7.0	7,101	4,966
All	1,923,075	1,112,823

Source of basic data: DBM (2012)

Figure 1. Changes in farm size distribution, Philippines, 1960–2012



Note: Farms here not only are limited to crop farms but also include those used for livestock/poultry raising and other noncrop-related agricultural activities. Sources of basic data: PSA (various years)

¹⁸ This survey aimed at gathering socioeconomic characteristics of Filipino farmers such as income levels and sources, expenditure patterns, farm investments, living conditions, ownership of assets, among others. It is a response to the need for benchmark information about Filipino farmers that would support the prioritization and development of agricultural programs and projects. Around 19,775 agricultural households were covered, and January to December 2011 was the reference period used. Funded by the Government of Japan and implemented in coordination with the National Agricultural and Fishery Council of the DA, the survey was one of the three components of the project titled “Enhancing Farmers’ Capacity to Access, Analyze, and Utilize Statistical Information” (PSA 2013).

¹⁹ e.g., part of a riverbank, shoreline, etc., not accessible to regular means of transportation

Based on the results of the 2011 Survey on Characterizing Small Farmers of the Philippines,¹⁸ farmers with larger farmholding tend to belong to higher-income agricultural households and vice versa (Figure 2). As documented from the field, some farmers with larger landholding also implement this clever strategy of dividing their farmlands into smaller parcels and distributing them among their family members and relatives.

It is unclear whether the PCIC has done some validation (whether they had enough resources or willingness to allocate resources for such an activity) of the true landholding of the farmers. This makes it possible for some farmers to intentionally misreport their total landholding in order to be enrolled in this free insurance program.

In addition, eligibility requirements of the RSBSA program superseded those of the regular program of the PCIC. Thus, the agency could also enroll farmers included in the registry but whose farms are located in identified risky areas¹⁹ at the same premium. This is tantamount to promoting adverse selection. Farmers who are more likely to apply to the program are those who frequently face production risks. This entails costs for the PCIC in the form of operating expenses and indemnity payments, which could undermine the financial sustainability of the program.

Moreover, the PCIC has also excluded a significant proportion of eligible agricultural producers from the RSBSA-AIP. In 2014, it did not enroll around 65 percent of agricultural producers with agricultural insurance in 2013 in six provinces simply because these producers are not found in the RSBSA list (Table 5). Specifically in Bataan and Eastern Samar, the PCIC no longer enrolled almost all the assured

Table 4. Distribution of RSBSA-AIP beneficiaries in select provinces, by total landholding devoted to crops

Total Crop Area ^a (in hectares)	Region II		Region IV-A		Region VI		Region VII		Region X		Total	Percent
	Cagayan	Isabela	Laguna	Quezon	Antique	Iloilo	Bohol	Cebu	Compostela Valley	Davao del Norte		
≤ 0.5	672	264	87	179	119	594	993	927	67	203	4,105	14.6
> 0.5–1	1,734	1,071	123	345	218	1,462	1,156	472	177	401	7,159	25.5
> 1–3	4,341	2,066	145	911	215	1,991	1,189	276	333	650	12,117	43.1
> 3–5	1,346	468	31	304	22	289	156	28	85	132	2,861	10.2
> 5–7	394	147	9	152	7	66	43	3	20	46	887	3.2
> 7–10	228	93	15	112	0	41	17	7	20	26	559	2.0
> 10–20	109	66	18	78	4	24	6	2	8	5	320	1.1
> 20–50	10	12	0	15	1	1	2	0	4	0	45	0.2
> 50	2	0	0	1	3	2	1	66	0	0	75	0.3
Total (matched samples ^b)	8,836	4,187	428	2,097	589	4,470	3,563	1,781	714	1,463	28,128	100.0

^a Total area devoted to top three crops planted by a registered farmer in the RSBSA

^b Samples both present in the RSBSA and PCIC lists, with similar name and location (municipality and barangay)

Source: Authors' estimates using PCIC and RSBSA data sets

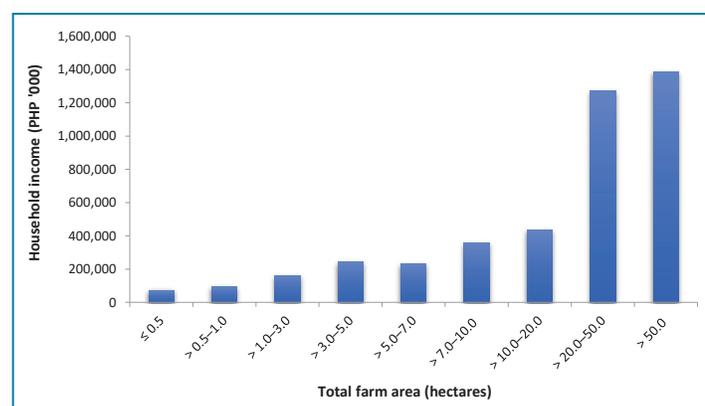
clients in 2013 in any of its agricultural insurance program in 2014.

Although the six sample provinces do not represent the entire population, the finding reflects a problematic sampling frame that leads to significant exclusions. In addition, instruction from the DBM on the prioritization of those not enrolled in the RSBSA-AIP in 2016 might increase exclusion rate. While the intention is good, such discontinuity undermines the objective of the agricultural insurance program.

Financing

In 2014, the DBM allocated a total of PHP 1.183 billion to fund the RSBSA-AIP, which was insufficient to cover a significant number of agricultural producers. In fact, the PCIC had to source around PHP 501 million from its corporate funds to finance the premium of their 135,765 regular clients excluded in the RSBSA list. This

Figure 2. Average annual net income of agricultural households (PHP '000), by total farm area (hectares), Philippines, 2011



Note: Total household income is the sum of net income from the following sources: on-farm, off-farm, nonfarm, and others (e.g., remittances from abroad and domestic sources, pension, rental, interest, among others).

Source of basic data: PSA (2011)

means the PCIC utilized PHP 1.684 billion for the implementation of the RSBSA-AIP in 2014.

Because of the limited funding, the agency also had to resort to a first-come, first-served policy.

Table 5. Proportion of assured agricultural producers (in six sample provinces) in 2013 who were not listed in the RSBSA

Province	Number of Assured Agricultural Producers in 2013	Number of Assured Agricultural Producers in 2013 Who Were not Listed in the RSBSA	Percentage of Assured Agricultural Producers in 2013 Who Were not Listed in the RSBSA
Aurora	1,917	1,004	52.4
Bataan	2,271	2,135	94.0
Eastern Samar	1,829	1,713	93.7
Northern Samar	1,136	413	36.4
Misamis Oriental	2,276	1,406	61.8
Davao del Norte	4,449	2,313	52.0
Total (6 provinces)	13,878	8,984	64.7

Note: Those six provinces were randomly selected to represent the different major islands of the country.
Source: Authors' estimates using PCIC and RSBSA data sets

Agricultural producers who immediately learned about the program and were living in or near the priority areas were able to take advantage of the full premium subsidy.

For 2015, the budget allocation amounted to PHP 1.3 billion while the approved budget for 2016 was PHP 1.66 billion. Early 2015, the DBM released a new set of implementing guidelines for the RSBSA-AIP. In order to increase the reach of the program, the PCIC reduced the cover ceiling for rice and corn insurance to PHP 20,000 per hectare for self-financed farmers. Still, the budget increase from PHP 1.183 billion in 2014 to PHP 1.66 billion in 2016 was insufficient to cover all eligible agricultural producers, not even all rice or corn farmers.

One can observe that even the combined budget for 2014–2016, a total of PHP 4.1 billion, is still insufficient to cover all eligible rice farmers, much less all eligible agricultural producers, including those engaged in noncrop production. This fact takes into account the estimated number of farmers listed in the registry as well as a number of factors, such as existing premium rates, amounts of cover,

type of insurance cover, and risk classification. If the government has to cover all eligible rice farmers, the program fund must therefore range from PHP 4.8 billion to PHP 8.6 billion (Figure 3).

Despite lowering the farm size requirement to three hectares and below, as what the PCIC has implemented starting July 2015, PHP 4.1 billion seems still insufficient. Lowering further the farm size requirement to 0.5 hectare and below, the budget of PHP 1 billion would only be sufficient if the PCIC will only cover natural disasters and rice farms located in low-risk areas. Similarly for corn, the PCIC needs around PHP 3.2 billion–PHP 6.2 billion to cover all eligible corn farmers (Figure 4). PHP 1 billion will only be sufficient when it reduces the farm size requirement to 0.5 hectare and below.

Using the latest data from the Census of Agriculture and Fisheries, one can confirm fine-tuning of the beneficiary targeting is crucial in the budgeting process for subsidized programs such as the RSBSA-AIP. In 2002, about 81.1 percent of farms had farm sizes seven hectares and below. However, this figure had increased to 98.21 percent in 2012, reflecting the continuous fragmentation of

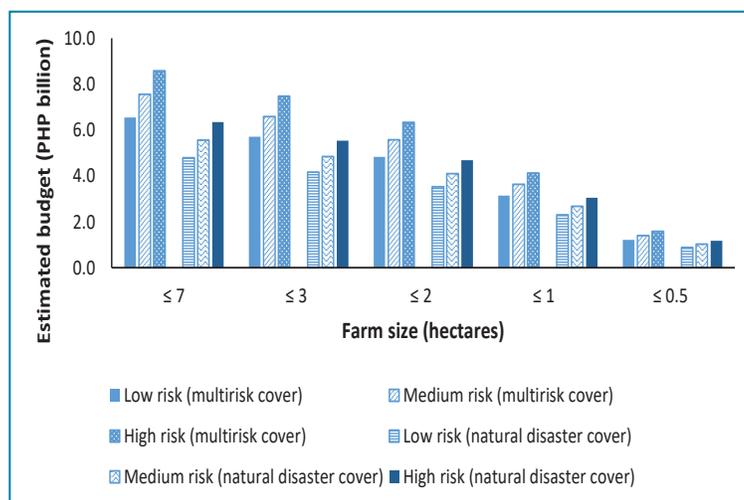
landholdings in agriculture (Table 6). Imposing a seven-hectare ceiling in order to qualify for the premium subsidy will include almost all farmers in the country, with a combined area of 5,463,344 hectares. Meanwhile, a ceiling of less than three hectares will target about half of all farmers in the country, with a combined area of 3,481,680 hectares. Moreover, targeting those with landholdings of less than one hectare will already amount to 2,159,963 farmers and a combined area of 277,781 hectares. The ceiling, and thus the total number of potential farmer-beneficiaries, should have been based on the amount of funds available.

Concluding remarks

Proper targeting system and optimal allocation of resources are crucial to achieve the objectives of a particular program. For the RSBSA-AIP, a more specific set of guidelines on the use of the RSBSA list for subsidy targeting is necessary to guide program implementers like the PCIC in the prioritization and estimation of resources needed, a better option than the current first-come, first-served policy. Thus, the RSBSA list has to be validated and regularly updated. Use of existing monitoring systems, such as the Community-Based Monitoring System being implemented by local government units, can be the least expensive way to regularly update the list of farmers.

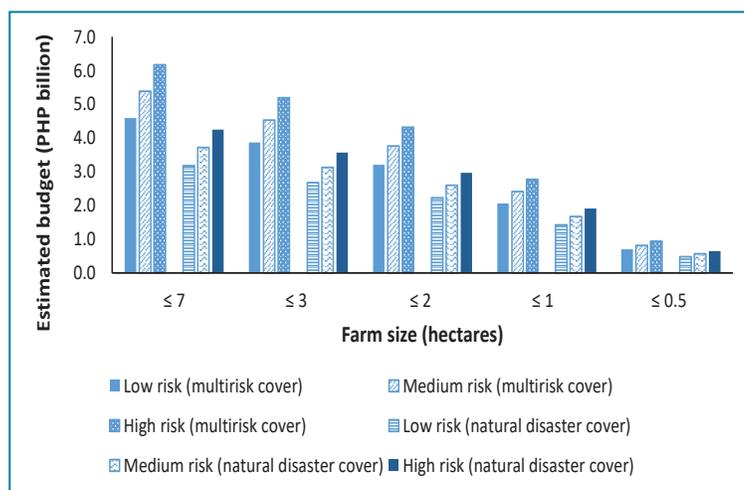
For a limited budget of PHP 1 billion, the PCIC should refine the targeting rule for the agricultural producers. For instance, it should define the eligible farmers as those with total crop area of not more than 0.5 hectare. It should also devise an efficient way of validating the information provided in the RSBSA list and/or those indicated in the farmers' application forms. Leakage of subsidies to unintended beneficiaries means foregone social benefits, which the PCIC must avoid.

Figure 3. Estimated budget for rice insurance premium subsidies for the RSBSA-AIP, by type of insurance cover, by risk classification, and by farm size



Assumptions: Amount of cover: inbred and hybrid, average - PHP 45,500/hectare; premium rate: 6.84 percent (low risk), 7.95 percent (medium risk), 9.07 percent (high risk)
Source: Authors' estimates using PCIC and RSBSA data sets

Figure 4. Estimated budget for corn insurance premium subsidies for the RSBSA-AIP, by type of insurance cover, by risk classification and by farm size



Assumptions: Amount of cover: OPV and hybrid, average - PHP 34,000/hectare; premium rate: 11.4 percent (low risk), 13.3 percent (medium risk), 15.2 percent (high risk)
Source: Authors' estimates using PCIC and RSBSA data sets

Table 6. Number and area of farms, by farm size, 2002 and 2012

Size of Farm (in hectares)	2002			2012		
	Number	Percent of Farms	Area	Number	Percent of Farms	Area
< 0.500				2,159,963	38.83	277,781
0.500–0.999	1,935,874	40.14	827,031	1,004,633	18.06	609,084
1.000–2.999	1,974,572	40.94	3,001,608	1,780,702	32.01	2,594,815
3.000–7.000				518,046	9.31	2,112,232
7.001–9.999	812,019	16.84	3,692,779	44,102	0.79	363,202
10.000–24.999	88,656	1.84	1,192,189	49,657	0.89	655,134
25.000–49.999				3,877	0.07	125,214
≥ 50.000	11,616	0.24	957,187	1,597	0.03	452,626
Total	4,822,739	100	9,670,793	5,562,577	100	7,190,087

Sources: PSA (various years)

Alternatively, the PCIC can determine the budget necessary to cover all eligible beneficiaries based on the validated and/or updated RSBSA list. The national government, on its part, should provide the estimated budget. Because funds of the national government may be limited, the role of local governments in providing complementary resources should also be explored.

Meanwhile, a policy that will make agricultural insurance programs, like the RSBSA-AIP, more sustainable should be proposed to avoid undermining the objectives of the agricultural insurance program. Before institutionalization,

however, fine-tuning of the design and implementation features of the programs (to make them well-targeted, more actuarially sound, and more effective in helping agricultural producers mitigate risks, among others) is warranted. 📄

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