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Evaluation of the Registry System for Basic Sectors in Agriculture

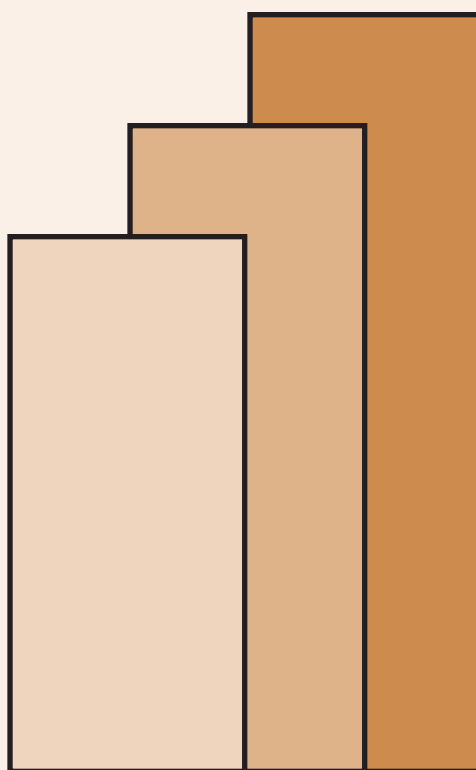
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EVALUATION OF THE REGISTRY SYSTEM FOR BASIC SECTORS IN AGRICULTURE

Celia M. Reyes and Reneli Ann B. Gloria¹

Abstract

There are many and varied government programs that target the agriculture and fisheries sector, especially the poor. For more efficient and streamlined program targeting, the Aquino administration has initiated the creation of the Registry System for Basic Sectors in Agriculture (RSBSA), a list of farmers, farm workers and fisherfolk in the 75 provinces of the country excluding ARMM and NCR. This is currently used by the Department of Budget and Management to target beneficiaries of the various government agencies implementing agricultural support programs, and as a basis for issuing allocated budgets for these programs. This paper finds that there are legitimate agricultural producers that are excluded from the list, leakages, difficulty of the registry to be linked with other government databases, and unclear operational definition of farmer. But despite its shortcomings, the authors find that the RSBSA is useful as a targeting tool, the list just needs to be validated and regularly updated.

Keywords: *Registry System for Basic Sectors in Agriculture (RSBSA), program beneficiary targeting, Department of Budget and Management, agricultural insurance, agricultural credit*

¹ The authors are Senior Research Fellow and Supervising Research Specialist of PIDS, respectively. The authors are grateful for the research assistance of Karen De Villa, Clynie Evangelista and Arjan P. Salvanera, OJTs from the University of Sto. Tomas for the crossmatching exercise with other agency databases, and for Ronina D. Asis for data processing of the RSBSA.



"Annual income twenty pounds, annual expenditure nineteen pounds nineteen and six, result - happiness. Annual income twenty pounds, annual expenditure twenty pounds nought and six, result - misery. Charles Dickens, David Copperfield

I. Introduction

Poverty has always been an agricultural phenomenon in the Philippines. A recent poverty study (Reyes et al. 2012)² estimated that poverty incidence among agricultural households (57%) is thrice than that of the non-agricultural households (17%). More so, food poverty or subsistence incidence among agricultural households is about five times greater than those among non-agricultural households. Thus, the proliferation of various government programs that target households in the agriculture and fisheries sector³.

Since the government has a limited budget for these programs, there is a need for more efficient program targeting in the agriculture and fisheries sector. To address this, the Department of Budget and Management spearheaded the creation of a Registry System for Basic Sectors in Agriculture, a nationwide database of baseline information concerning farmers, farm laborers, and fisherfolk located in the 75 provinces of the Philippines, excluding ARMM and NCR. For the 2013-2016 General Appropriations Act, this Registry is used as the basis for DBM to target beneficiaries of some of the different agricultural support programs of the government as implemented by various government agencies, such as the RSBSA agricultural insurance program of PCIC, and the Agriculture and Fisheries Financing Program of the Land Bank of the Philippines and People's Credit and Finance Corporation.

This paper will attempt to assess the effectiveness of the Registry as a targeting tool, and as a policy instrument for the agriculture and fisheries sector.

II. Creation of the Registry

The creation of this database was triggered by various budget requests of the Department of Agriculture and the Department of Agrarian Reform to conduct surveys of their clients for better program targeting. For the DBM, the registry will be used as a basis for developing programs and policies for the agriculture and fisheries sectors, and more importantly, as a means to identify farmers and fishermen that should benefit from agriculture-related programs and services of the government.

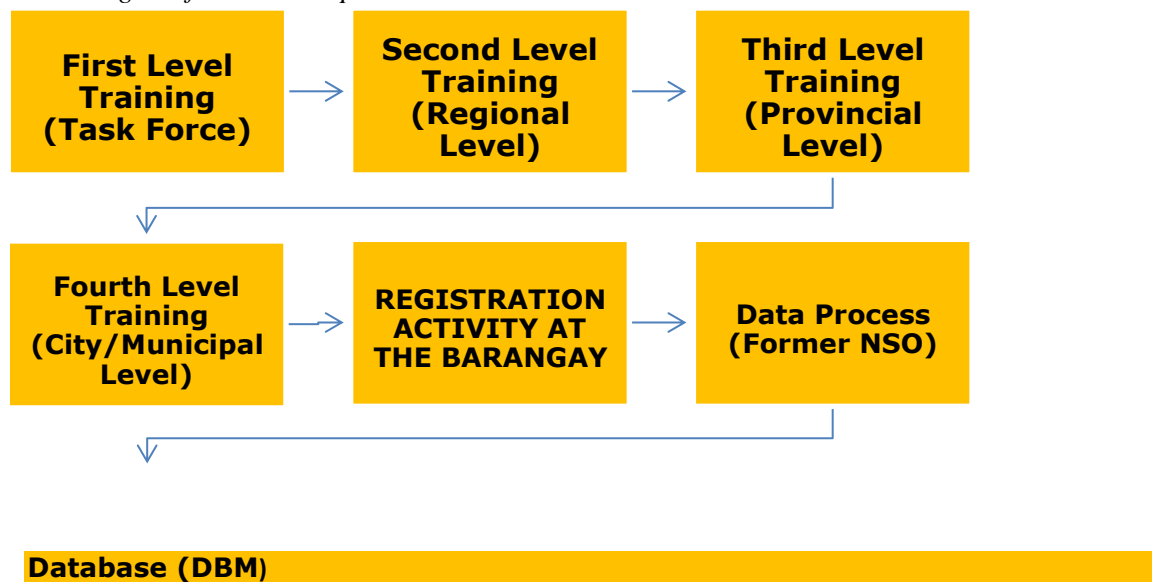
² Reyes, C. et al. 2012. Poverty and Agriculture in the Philippines: Trends in Income Poverty and Distribution. PIDS Discussion Paper Series No. 2012-09. Makati City: Philippine Institute for Development Studies.

³ The Department of Agriculture and its attached agencies, the Department of Agrarian Reform, and government credit institutions like the Land Bank of the Philippines, all have specific programs targeted to the agriculture sector.

The RSBSA is a joint effort of various government agencies, with the Department of Budget and Management as the main project implementor and custodian of the registry⁴. The former National Statistics Office (now Philippine Statistical Authority), developed the registration forms, manuals, and other materials, including the computerized database system; and conducted the training and data processing. The Department of Agriculture (DA) and the Department of Agrarian Reform (DAR) acted as consultants in the technical aspects of the registration activity. The Department of Interior and Local Government (DILG) ensured smooth data collection, with the Local Government Units (LGUs) as the data collectors, with the punong barangay and barangay secretaries as main implementors, city/ municipal agricultural officers and the city/municipal planning and development coordinators carrying administrative supervision of the survey in all the barangays.

The registration activity was conducted in two phases; Phase 1 in January 2012, covering twenty provinces, and Phase 2 from September to November 2012 covering 55 provinces. National, regional, provincial and municipal level-trainings were done before the actual registration activity in the barangay. Table 1 demonstrates the flow diagram for RSBSA operations.

Table 1. Flow Diagram for RSBSA Operations



Source: Philippine Statistical Authority

Participants in the first level training were the former NSO Central Office personnel, regional directors, selected provincial statistics officers (PSOs), the regional statistician, and the central office personnel of the DBM, DILG, DA, DAR, NAPC, former BAS, the former SRTC, DSWD and the other stakeholders. For the regional or second level training, the participants were the former NSO provincial statistics officers, the provincial statistician, selected provincial office personnel of the former NSO, regional officer personnel of DBM, DILG, DA, DAR, the former BAS, DSWD and other stakeholders.

For the provincial or third-level training, the participants were the former NSO district statistics officers (DSOs), statistical coordination officers (SCOs), other provincial office personnel including assistant registration area supervisors (ARASs), the provincial office personnel of DILG, DA, DAR, DSWD and the former BAS, and the city/municipality planning and development coordinator (C/MPDC). The punong, barangay, the barangay secretary and hired interviewers were the participants in the city/municipal level or fourth level training.

During the actual registration activity, registration teams was formed per municipality, consisting of the city/municipal planning and development coordinator, city/municipal local government operation officers

⁴ The NSO was not designated custodian of the registry since by virtue of law, it could not disclose client-specific data, and thus could not disseminate client-specific information needed as a targeting tool.

(DILG), city/municipal agricultural officer, city/municipal civil registrar, municipal agrarian reform officer, district statistics officers/statistical coordination officers and assistant registration area supervisors (former NSO).

The actual registration activity was conducted at the barangay level. Hired interviewers made house-to-house visits and face-to-face interviews, with the barangay secretary as the focal person and immediate supervisor. The registration team at the municipality level was assigned the intermediate supervisor. The accomplished data collection forms were collated by the barangay secretary and submitted to the city/municipal planning and development coordinator. This was then forwarded to the NSO for data processing. Once the data processing was done, it was forwarded to the DBM as custodian of the registry.

For purposes of the RSBSA, the basic sectors in agriculture refer only to crop and animal production, aquaculture and fishing. Activities related to hunting, forestry and logging are not considered as basic sectors in the registry. Table 2 details the definitions used by the RSBSA in the registration.

Table 2. RSBSA Definitions of Members of the Agriculture and Fisheries Sector

Farmer- a natural person whose livelihood is the cultivation of land or the production of agricultural crops and/or livestock/ poultry, either by himself/ herself, or primarily with the assistance of his/her immediate farm HH, whether the land is owned by him/ her, or by another person under a leasehold or share tenancy agreement or arrangement with the owner thereof, and whether for sale or for home consumption. Generally, therefore, a farmer is one who is engaged in farming as a way of life, whether or not it is her/his primary livelihood.

Farm laborer- a natural person who renders service for value as an employee or laborer in an agricultural enterprise or farm, regardless of whether his/her compensation is paid daily, weekly, monthly or “pakyaw” basis. It includes a regular farm worker (one who is employed on a recurrent, periodic, or intermittent basis by an agricultural enterprise or farm, such as “dumaan”, “sacada” and the like (RA 6657- Comprehensive Agrarian Reform Law of 1988). It also includes an unpaid family member who is a farm laborer or a farm worker in own farm.

Fisherman/fisherfolk- a person directly or personally and physically engaged in taking and/or culturing fishery and/or aquatic resources, whether for sale or for home consumption

Excluded in the RSBSA are persons who own and provide the means or factors of production such as land, labor, capital and farm implements, but are not directly or personally and physically engaged in farming. Such persons are not considered as farmers. Similarly, persons who own and provide the means including land, labor, capital and fishing gears and vessels, but do not personally engage in fishery are not considered fishermen or fisherfolks.

Source: Philippine Statistical Authority

One major limitation of the registry was that there was no validation activity done to check if the names listed are indeed farmers, farm laborers and fisherfolk⁵. The agreement among the agencies concerned in the creation of the RSBSA was that the line agencies in charge of implementing government programs in the sector will be the one to do their own validation if the intended beneficiaries of their respective programs are in the RSBSA.

Another major limitation was that the operational definition of farmer is not clear. For PCIC, for example, not all agricultural producers in the list have “insurable interest”, i.e. minimum land hectareage to be insurable, minimum number of livestock to be insured. Thus, not all farm laborers listed, for example, without insurable interest, will be of use to the PCIC. It is possible that both the farm owner and farm “katiwala” are listed in the RSBSA⁶.

⁵ Funding source of RSBSA Phase 2 came from Disbursement Acceleration Program (DAP) funds, and subsequently was not released to NSO. Thus, NSO did not have funds to do validation. For a more detailed story on projects financed by DAP, see <http://pcij.org/stories/funds-freed-in-a-rush-projects-yield-slow-results/> (accessed January 21, 2016).

⁶ A PCIC Manager recounts that both farm owner and his “katiwala” applied for indemnity claim for the same parcel of land. The issue of whom to give the indemnity claim payment arose. PCIC then decided to give half to each.

III. Scope and Content of the Registry

The registry contains basic information on the farmer, farm laborer and fisherman; their names, birthdays, place of birth and names of parents, name of spouse, educational status, CCT status, ARB status, kind of agricultural activity being done, characteristics of the farm parcel, ownership, crops grown, livestock and poultry tended, fishing activities done, ownership and type of fishing vessel, and aquaculture activities done.

The scope of data collected during the first phase covering the 20 priority provinces are not exactly the same as the data collected from the next 55 provinces covered in the second phase. Annex A compares the data items included or excluded in the two phases.

About 9,780,101 farmers, farm workers and fisherfolk are registered in the RSBSA. Table 3 summarizes the number of agricultural producers found in the registry. Note that in the RSBSA, it is possible for an agricultural producer to be in multiple categories, i.e. as both farmer and farm laborer.

Table 3. Total No. of Agricultural Producers in the RSBSA

No. of Persons who Registered as Farmers, Farm Laborers and/or Fishermen	9,780,101
No. of Registered Farmers, Farm Laborers, and Fishermen	241,876
No. of Registered Farmers and Farm Laborers Only	1,570,505
No. of Registered Farmers and Fishermen Only	240,221
No. of Registered Farm Laborers and Fishermen	248,373
No. of Registered Farmers Only	3,296,654
No. of Registered Farm Laborers Only	3,288,998
No. of Registered Fishermen Only	893,474

Source: authors' calculations, data from DBM

Table 4 shows the breakdown of the registry count by region. Region VI, Western Visayas, registered the highest number of farmers, farm laborers, and fisherfolk.

Table 4. Total No. of Agricultural Producers in the RSBSA, by Region

Region	No. of Persons Who Registered as Farmers, Farm Laborers	No. of Registered Farmers, Farm Laborers and Fishermen	No. of Registered Farmers and Farm Laborers Only	No. of Registered Farmers and Fishermen Only	No. of Registered Farm Laborers and Fishermen only	No. of Registered Farmers Only	No. of Registered Farm Laborers only	No. of Registered Fishermen Only
Philippines	9,780,101	241,876	1,570,505	240,221	248,373	3,296,654	3,288,998	893,474
CAR	323,256	10,529	72,901	6,236	6,310	102,184	123,833	1,263
Region I	651,515	17,199	109,315	12,456	18,347	227,510	222,979	43,709
Region II	692,105	36,714	143,319	12,447	26,663	167,792	294,135	11,035
Region III	718,621	20,194	76,859	13,689	34,336	204,131	309,097	60,315
Region IV-A	592,733	8,213	62,152	11,325	12,161	238,155	179,776	80,951
Region IV-B	483,632	18,665	70,687	23,516	20,778	132,298	129,849	87,839
Region V	828,917	23,638	131,294	27,540	31,196	255,714	250,972	108,563
Region VI	1,026,112	14,234	183,081	18,255	14,216	321,679	378,967	95,680
Region VII	923,567	19,214	110,457	39,813	17,731	390,249	238,965	107,138
Region VIII	721,266	25,187	110,790	27,532	28,168	227,243	215,173	87,173
Region IX	507,912	8,624	93,463	8,711	5,725	194,029	133,606	63,754
Region X	710,135	10,693	133,756	10,568	8,305	253,510	256,584	36,719
Region XI	551,067	6,279	92,099	6,022	7,404	201,782	204,337	33,144
Region XII	672,566	10,680	120,714	11,140	7,166	237,085	243,419	42,362
CARAGA	376,697	11,813	59,618	10,971	9,867	143,293	107,306	33,829

Note: Excludes provinces from NCR and ARMM Source: authors' calculations, data from DBM, RSBSA

There are about 3.8 million rice farmers registered in the RSBSA, with the majority of them found in Regions I, VI, and III. Table 5 shows the distribution of agricultural producers in the country by type of crop.

Table 5. Total No. of Agricultural Producers in the RSBSA, by Region and Type of Crop

Region	No. of Persons who Registered as Farmers Farm Laborers and/or Fishermen	Rice	Corn	HVCC	Livestock	Fisheries
Philippines	9,780,101	3,778,077	2,241,618	5,373,892	6,295,039	3,202,159
CAR	323,256	115,423	27,474	96,822	104,406	24,338
Region I	651,515	289,745	71,743	106,291	207,554	91,734
Region II	692,105	186,082	125,383	64,525	241,322	86,879
Region III	718,621	189,108	12,171	84,067	123,150	108,739
Region IV-A	592,733	65,203	16,986	224,807	172,388	112,647
Region IV-B	483,632	107,418	13,446	127,412	155,544	150,740
Region V	828,917	164,614	51,537	278,930	230,051	190,914
Region VI	1,026,112	256,483	59,762	173,986	408,863	142,380
Region VII	923,567	94,770	202,426	339,812	420,302	183,900
Region VIII	721,266	125,632	20,254	275,397	182,074	168,047
Region IX	507,912	72,784	117,402	181,761	203,874	86,798
Region X	710,135	45,459	156,289	224,365	271,167	66,288
Region XI	551,067	31,979	71,714	224,255	185,653	52,920
Region XII	672,566	121,666	160,466	174,544	190,736	70,905
CARAGA	376,697	71,078	27,255	153,478	95,947	66,116

Note: Excludes provinces from NCR and ARMM Source: Authors' calculations, data from DBM, RSBSA

IV. Agency Experiences in Using the Registry

Starting in 2013, the RSBSA is used by different government agencies in identifying target beneficiaries for their own programs, as directed by special provisions in the General Appropriations Act. On April 8, 2015, in an inter-agency meeting sponsored by the World Bank⁷, there was general consensus that the registry is useful, but with three general concerns; it seems that the RSBSA failed to cover all farmers, farm workers and fisherfolk, based on their own lists; the registry lacks technical specifications that they needed to administer their own programs; and that some information (i.e. hectareage, ARB status) might be inaccurate.

One immediate concern for the agencies is that they could not efficiently utilize their budget allocations for their programs since only those in the RSBSA list are eligible for funding, based on the General Appropriations Acts for 2013-2016. The LBP and the PCFC found it difficult to move the P1 billion budget programmed for the AFFP because of the aforementioned difficulties in using the RSBSA list. The PCIC was not able to provide subsidized insurance to many farmers/ fisherfolk who applied because they are not in the RSBSA list, and some of them were already regular patrons under the regular insurance programs of

⁷ Highlights of the 4th Interagency Meeting on World Bank's Programmatic AAA on Agriculture and Agribusiness for Inclusive Growth, April 8, 2015, World Bank Office, Manila. The following agencies were represented in the meeting: NEDA, DBM, DA, DAR, DENR, NIA, DTI, Office of the Presidential Assistant on Food Security, Senate Economic Planning Office, Congressional Planning and Budgeting Department, PSA, ACPC, PCA, LBP, PIDS, PCFC, BFAR, PCIC and the World Bank.

the Corporation. Because of the missing information in the RSBSA, BFAR was prompted to undertake their own survey of beneficiaries using the RSBSA as the base, updating the list and expanding the data elements to be able to comply with the international obligation for a registry of fishers and vessels with precise measurements. But since many fisherfolk were not included in the RSBSA, BFAR reported that they were not able to get insurance from PCIC. In the case of DA, they still provided services to farmers even if not in the RSBSA list, although this can subject the Department to disallowances by the Commission on Audit (COA). The PCA is also validating and updating its list of coconut farmers for inclusion in the registry.

In another consultation meeting⁸, NAPC commented on the database structure of the RSBSA. Parcel data is not linked to the farmer, and tenure is linked to parcel data. Some municipal agrarian reform officers were also not aware of the RSBSA, and there were whole municipalities with farmers registered in the RSBSA.

In the case of the Philippine Crop Insurance Corporation, the provisions of the 2014, 2015 and 2016 General Appropriations Act state that the full budget for the government premium subsidy (P1.183 billion for the previous two years and P1.3 billion for this year) will be used solely to finance the full cost of the insurance premiums of those listed in the registry, provided that they are not receiving any other premium subsidy from the government, local or otherwise. Since PCIC agricultural insurance is usually part of other agricultural support programs of other government line agencies, like credit, for example, it is possible that there are beneficiaries in other agency lists that cannot be given agricultural insurance because they are not in the RSBSA, like in the case of BFAR.

DAR avers that the number of ARBs in the RSBSA might be understated. Since in the survey, the ARB status is self-reported, it is possible that some farmers might want to keep their status private, as they may have been in arrears in paying their Emancipation Patents and taxes to the government⁹. As Table 6 shows, considering that there are 2.6 million ARBs registered in DAR, the RSBSA was only able to capture about one-sixth of it, although DAR admits that its own list might not be updated, due to land transfer agreements (LTAs). Subsequently, DAR did a matching of its own database to the RSBSA, and reported that only about 13% (340,000) of its ARBs are on the RSBSA list. Table 6 shows the total number of ARBs in the RSBSA versus DAR data. Assuming that the number of ARBs in the DAR list is still valid, only about 14.4% of the DAR ARBs are captured in the RSBSA list.

Table 6. ARBs in RSBSA versus ARBs in DAR

REGION	TOTAL RSBSA farmers	ARBs in RSBSA	DAR ARBS
Philippines	9,780,831	402,018	2,791,897
Cordillera Administrative Region	323,256	14,154	63,363
Region I (Ilocos)	651,554	18,456	140,253
Region II (Cagayan Valley)	692,110	27,077	209,538
Region III (Central Luzon)	718,682	37,623	316,497
Region IV-A (CALABARZON)	592,735	25,369	119,579
Region IV-B (MIMAROPA)	483,657	15,510	251,946
Region V (Bicol)	823,933	47,100	191,797
Region VI (Western Visayas)	1,026,118	53,763	279,312
Region VII (Central Visayas)	923,619	27,938	148,270
Region VIII (Eastern Visayas)*	721,273	19,366	197,508
Region IX (Zamboanga Peninsula)	507,912	19,755	115,954
Region X (Northern Mindanao)	710,135	16,195	171,094
Region XI (Davao)*	551,133	29,991	168,203

⁸ Consultation Meeting on the RSBSA, May 19, 2015, Philippine Institute for Development Studies, Makati. Attendees of the consultation meeting included NEDA, DBM, DA, DAR, NAPC, ACPC, NIA and PCIC.

⁹ Consultation Meeting on the RSBSA, May 19, 2015, Philippine Institute for Development Studies, Makati. Attendees of the consultation meeting included NEDA, DBM, DA, DAR, NAPC, ACPC, NIA and PCIC.

Region XII (SOCCSKSARGEN)	672,992	27,261	266,692
ARMM	-	-	23,392
Caraga	376,722	22,460	128,499

Source: Authors' calculations, data from DAR and DBM (RSBSA)

PCIC expended about P1.684 billion for the RSBSA program, and was given a budget of P1.183 billion for the premiums of the farmers and fisherfolk in the list. The non-inclusion of a significant number of farmers and fisherfolk in the RSBSA cost the PCIC P501 million, since they financed the shortfall from the corporate funds of the organization. About 135,765 farmers benefited from the P501 million¹⁰. Table 7 shows the total number of farmers with agricultural insurance under the RSBSA program of PCIC.

Table 7. Distribution of Insured Farmers in RSBSA of PCIC, By Insurance Line, 2014

Region	Rice	Corn	HVCC	Livestock	Noncrop	TIP	Total
Philippines	135,551	58,695	44,588	52,934	4,160	159,553	455,481
CAR	7,152	3,805	888	458	213	2,798	15,314
Region I	4,282	4,016	2,151	1,169	34	2,831	14,483
Region II	19,215	7,497	152	26	22	23,946	50,858
Region III	16,887	41	2,073	9,855	1,124	3,675	33,655
Region IVA	3,863	445	5,181	4,851	26	4,061	18,427
Region IVA	5,470	440	1,452	2,275	86	1,253	10,976
Region V	11,507	3,169	8,740	3,397	466	3,966	31,245
Region VI	21,426	1,517	1,947	1,355	210	51,337	77,792
Region VII	6,022	5,905	7,150	16,680	1,557	37,273	74,587
Region VIII	4,162	200	3,361	2,025	194	12,052	21,994
Region IX	8,989	15,254	3,111	1,417	105	10,060	38,936
Region X	2,686	6,175	1,710	3,082	12	721	14,386
Region XI	4,212	1,348	4,037	3,885	-	641	14,123
Region XII	11,921	8,744	2,422	2,085	6	2,497	27,675
Region XIII	7,755	137	213	374	105	1,755	10,339
ARMM	2	2	-	-	-	687	691

Source: Authors' calculations, data from DAR and DBM

V. PIDS Cross-matching with Other Agency Lists

In order to validate these reports, the PIDS team tried to match the databases of the PCIC and DAR with the RSBSA, using the farmers' full names and municipality addresses as matching points. Because of time and resource constraints, underwriting insurance data from PCIC for 2013 in six provinces and 2014 was matched with the RSBSA. Data on ARBs from DAR for six provinces was matched with the RSBSA. Tables 8 and 9 detail the results of the matching exercise for PCIC, and Table 10 for DAR.

From the sample provinces, it can be inferred that there are more than one half (64.74%) of farmers insured by PCIC in 2013 are not in the RSBSA. This figure can be interpreted as the number of bonafide farmers that are excluded from the registry in the six provinces.

¹⁰ For a discussion on the financing requirements needed to fund the RSBSA program of the PCIC, see "Assessment of the Targeting and Financing Aspects of the RSBSA Agricultural Insurance Program", by Reyes and Mina, 2016.

Table 8. Proportion of Agricultural Producers Insured by PCIC not in RSBSA, 2013

Province	Total Agri Producers Listed in RSBSA	Total Farmers Insured by PCIC 2013	Total Insured in RSBSA	Total Insured not in RSBSA	Proportion of Insured not in RSBSA
Aurora	40,879	1,917	913	1,004	52.37%
Bataan	40,294	2,271	136	2,135	94.01%
Eastern Samar	71,420	1,829	116	1,713	93.66%
Northern Samar	96,050	1,136	723	413	36.36%
Misamis Oriental	167,652	2,276	870	1,406	61.78%
Davao del Norte	118,185	4,449	2,136	2,313	51.99%
Total, 6 Provinces	534,480	13,878	4,894	8,984	64.74%

Source: Authors' calculations, data from DBM and PCIC

The proportion of agricultural producers insured by PCIC in 2014 but not listed in the RSBSA decreased by 13.18%, but the proportion of excluded farmers is still significant at 51.56%

Table 9. Proportion of Agricultural Producers Insured by PCIC not in RSBSA, 2014

Province	Total Agri Producers Listed in RSBSA	Total Farmers Insured by PCIC 2014*	Total Insured in RSBSA	Total Insured not in RSBSA	Proportion of Insured not in RSBSA
Aurora	40,879	3,533	1,428	2,105	59.58%
Bataan	40,294	1,934	85	1,849	95.60%
Eastern Samar	71,420	3,784	1,218	2,566	67.81%
Northern Samar	96,050	4,943	1,837	3,106	62.84%
Misamis Oriental	167,652	2,442	1,380	1,062	43.49%
Davao del Norte	118,185	4,830	1,116	3,714	76.89%
Total, 8 Provinces	534,480	17,848	7,064	6,667	51.56%

Source: Authors' calculations, data from DBM and PCIC

Although one cannot generalize from a sample of six provinces, one can see that there is a sizeable number of agricultural producers excluded in the registry¹¹. Because of this, as mentioned before, PCIC had to cover almost one-third of the cost of its own RSBSA program, since the funds provided by DBM was not sufficient.

Table 10. Proportion of ARBs in DAR Listed in the RSBSA

Province	Total ARBs, RSBSA	Total ARBs, DAR	Total ARBs Insured, 2013	Difference Between DAR and RSBSA
Aurora	2,200	9,181	276	6,981
Bataan	2,331	21,236	12	18,905
Eastern Samar	1,180	29,764	12	28,584
Northern Samar	3,739	21,367	94	17,628
Misamis Oriental	2,297	25,852	71	23,555

¹¹ Another issue with the RSBSA is that the names of the farmers may be inaccurately spelled out. There was an instance recounted by PCIC where one farmer in Region VII was listed ten times in the registry with the same address but with different spouses and different birthdays. Some farmers do not have middle names, while there are some in the list with just their nicknames or aliases indicated. ¹² The DAR qualifies that its own database might not be updated.

Davao del Norte	8,416	56,718	1,226	48,302
Total, 6 Provinces	20,163	164,118	1,691	143,955

Source: Authors' calculations, data from DBM, DAR, and PCIC

Matching of DAR ARBs to the RSBSA list shows that only about 12% of the ARBs in the RSBSA¹². This finding is quite consistent with the mentioned crossmatching done by DAR that about 13% of the ARBs are in the RSBSA.

Comparison with the Census of Agriculture and Fisheries

The latest Census of Agriculture and Fisheries was conducted in 2012, the same year as the RSBSA was implemented. In contrast to the 1991 and 2002 Census of Agriculture and Fisheries, the 2012 census was a complete listing and enumerations of all households engaged in operating agricultural farms, excepting the municipalities of Banganga, Boston, and Cateel in Davao Oriental, since it was devastated by Typhoon Pablo at the time of enumeration.

Since both enumeration of agricultural operators were done in the same year, the Census of Agriculture and Fisheries can be a good benchmark for the RSBSA on the completeness of the registry. In Table 8, one can immediately see that the total number of hectares covered in CAF 2012 is much bigger than the total number of farmholdings and hectares covered in the RSBSA, but the distribution is more or less the same.

Table 8. Distribution of Farms/Holdings, By Number, Area, and Average Area per Farm/ Holding, By Size of Farm, RSBSA versus CAF, 2012

Size of Farm	RSBSA, 2012				CAF, 2012			
	Number	Percent	Area (in Ha)	Average Area	Number	Percent	Area (in Ha)	Average Area
Under 0.5 hectares	1,107,785	42.25%	139,655.46	0.13	2,159,963	38.83%	277,781.819	0.13
0.500 -0.999 ha	452,911	17.27%	267,861.00	0.59	1,004,633	18.06%	609,084.037	0.61
1.000 - 2.999 ha	776,532	29.62%	1,115,009.30	1.44	1,780,702	32.01%	2,594,815.772	1.46
3.000 - 7.000 ha	239,100	9.12%	973,756.90	4.07	518,046	9.31%	2,112,232.941	4.08
7.001 - 9.999 ha	19,408	0.74%	160,360.11	8.26	44,102	0.79%	363,202.962	8.24
10.000 - 24.999 ha	24,274	0.93%	315,871.71	13.01	49,657	0.89%	655,134.751	13.19
25.000 - 49.999 ha	1,569	0.06%	49,665.77	31.65	3,877	0.07%	125,214.209	32.30
50.000 and over	449	0.02%	56,213.46	125.20	1,597	0.03%	452,626.587	283.42
Total	2,622,028	100.00%	3,078,393.71	1.17	5,562,577	100.00%	7,190,087.109	1.29

Source: PSA, table from CAF 2012 ; authors' calculations for RSBSA, data from DBM

If we remove the landholdings in CAF 2012 that are not included in the RSBSA, there is still an unaccounted 3,781,900.78 million hectares for the latter, as shown in Table 9. This further gives evidence of exclusion in the RSBSA. One can say that the registry is understated by that figure when compared to CAF 2012.

Table 9. Distribution of Farms/ Holdings, by Number, Area, and Average Area Per Farm/ Landholding, By Land Use, CAF 2012

Land Use	Number	Area (in Hectares)	Average Area
All Farms/ Holdings	5,562,577	7,190,087.11	1.29
All Parcels	7,887,940	7,190,087.11	0.91
Under Temporary Crops	3,826,352	3,444,457.31	0.90

Under Permanent Crops	1,799,014	3,328,764.97	1.85
Temporary Fallow	10,555	14,407.13	1.36
Under Temporary Meadows and Pastures	8,737	14,165.57	1.62
Under Livestock and Poultry Raising	68,925	56,719.45	0.82
Under Aquaculture	1,353	1,780.07	1.32
Less Landholdings not Included in RSBSA:			
Under Permanent Meadows and Pastures	4,805	44,052.76	9.17
Covered with Wood and Forest	6,839	32,878.03	4.81
Other Main Use of Farm/ Holding Parcels	7,148	5,128.64	0.72
Homelots	2,154,212	247,733.19	0.11
TOTAL	5,714,936	6,860,294.49	1.20

Source of Data: PSA, table from CAF 2012 ; DBM for RSBSA, authors' calculations

Comparison with Malaybalay and Manolo Fortich, Bukidnon LGU Farmer Listings

In one focus group conducted by the authors to farmers insured by the PCIC at Malaybalay, Bukidnon, last March 11, 2015, 12 out of the 33 farmers invited were not in the RSBSA list. When the Municipal Agricultural Officer's office was asked to check the names of the 168 farmers listed in the RSBSA, 43 names (25.6%) should not have been on the list, either because they were already dead, moved out, or just have backyard gardens¹². To address these issues, Bukidnon has initiated a listing of farmers to be submitted to DA for inclusion in the RSBSA. Since registration to the RSBSA was done in 2012, there might be a need to update the database regularly.

The leakage rate of 25.6% from the FGDs is still lower than the exclusion rates of 64.74% and 51.56% from the crossmatching. But it must be noted, however, that not all of the agricultural producers in the RSBSA may be the target beneficiaries of the concerned agency, like in this case, of the PCIC. Thus, the leakage and exclusion rates might be lower.

In the municipality of Manolo Fortich, also in Bukidnon, there are discrepancies between the updated LGU list and that of the RSBSA. The total number of farmers in the LGU list is 5,519, while in the RSBSA, it is only 1,528. The total number of hectares planted to rice, corn and HVCC in the LGU records is 7,323.39, while in the RSBSA it is only 2,034.18 hectares. Table 10 also shows that the RSBSA only captured 185 of the 5,519 farmers in Manolo Fortich, or only about 3.35% of the farmers.

Table 10. Cross-matching with Manolo Fortich LGU, Bukidnon

Cross-matching Results	Number
Total No. of Matches by Name and Barangay Address	168
Total No. of Matches by Name Only	185
Total No. of No Matched Names	1,343
Total No. of Farmers in RSBSA List	1,528
Total No. of Farmers in LGU List	5,519

Source: Authors' calculations, denominator is RSBSA in deriving percentages, data from Manolo Fortich LGU and from DBM (RSBSA)

In an interview with the LGU officers of Manolo Fortich, they claim that the farmers were just called in a meeting at the barangay and were registered by the enumerators. No house-to-house interviews were done.

¹² During discussions with LGU officials and PCIC regional offices, the question "how many chickens, or coconut trees, or how large a vegetable plot you should have in order to be called farmer?" always surfaced. It seems that the operational definition of farmer or agricultural worker was not clear.

Using the RSBSA as a Sampling Frame

The PIDS used the RSBSA as a sampling frame for the survey phase of an ongoing impact evaluation study, “Addressing Transient Poverty: Evaluation of the Agricultural Insurance Program of the Philippine Crop Insurance Corporation”. The survey was implemented in five regions of the country. The sampling allocation for each region was 250 farmers with agricultural insurance (the treatment group) and 250 farmers with no insurance (no insurance). The RSBSA list was used for the latter. Table 11 shows the replacements done for the Cagayan Valley (Region II) and Central Visayas (Region VII).

Table 11. Replacements Done from Cagayan Valley (Region II) and Central Visayas (Region VII)

Reason for Replacement	Region II Cagayan	Region VII- Central Visayas	Total
Farmer not existing in locality (moved out, already dead, cannot be located, unknown)	5	10	15
Farmer characteristics listed in the RSBSA (farm size, type of crop, area planted to crop, etc.) not actual characteristics when validated in the field	6	8	14
Farmer is insured	0	16	16
Respondent in sample is not an actual farmer	3	2	5
Location of farmer household extremely difficult to reach	9	16	25
Total Replacements	23	52	75
Total sample from RSBSA	250	250	500

Source: PIDS Survey, “Addressing Transient Poverty: Evaluation of the Agricultural Insurance Programs of the PCIC”, 2015

The need for validation and regular updating of the database can be seen from Table 11. From the time the registry was created in 2012, to the time the of the survey in 2015, fifteen farmers were not existing anymore in the locality, farm information on fourteen farmers have changed, and five farmers previously listed are not farmers anymore.

VI. Government Efforts to Improve the Registry

The Department of Budget and Management, under the Office of the Chief Information Officer (OCIO) has been exerting efforts to improve the accuracy of the registry, as a response to the various issues regarding the list. With the cooperations of the concerned government agencies, a project that they call RSBSA version 1.1, they have initiated crossmatching the registry to other government databases. Those agencies have submitted their own beneficiary lists to DBM for crossmatching.

Table 12 shows the list of agency databases that DBM-OCIO is checking with the RSBSA, and the total number of checked names so far:

Table 12. Update on Crossmatching with Different Government Databases, DBM-OCIO, 2015

Agency	Database	No. of Provinces	Total Population	Crossmatched	Percent Crossmatched
DAR	EP CLOA, ARBs	74	4,133,414	2,182,746	52.81
NIA	Irrigators’ Association Presidents	72	7,458	4,518	60.58
PCIC	Fund Beneficiaries	46	28,092	10,018	35.66
BFAR	MFRS/ FishR	70	1,469,588	343,263	23.36
DA	DA-Masterlist	75	1,449,149	805,317	55.57

Source: DBM-OCIO

Based on their crossmatching of the various names with the RSBSA, DBM has identified a combined total of 3,854,723 agricultural producers that are not in the RSBSA but in the other agency lists. Note that only the names of the farmers, farm workers and fisherfolk are used in crossmatching, thus, it is not 100% accurate. Standardized inclusion protocols still need to be developed and agreed upon by the various government agencies involved, and crossmatching between agency databases (e.g. FishR versus DA Masterlist) still has to be done to ensure no duplication of entries.

Since the DBM-OCIO is coterminus with the current administration, the custodianship of the database was transferred to the Department of Science and Technology- Information and Communications Technology Office (ICTO).

Further plans to improve the RSBSA include creation of guidelines to update and standardize data, field validation of the database, creation of standardized inclusion and exclusion protocols, and the crafting of access protocols for information sharing.

VII. Conclusions and Recommendations

Based on the foregoing discussions, six major findings on the RSBSA can be concluded:

- (1) There are legitimate agricultural producers that are excluded from the list;
- (2) There are leakages; persons in the list that should not be in the list;
- (3) The registry is difficult to link with other databases;
- (4) No validation of the list happened;
- (5) The operational definition of farmer is not clear; and concerned agencies might need to fine-tune the list according to their own defined program objectives.
- (6) Total arable/ agricultural land might be understated in the RSBSA.

Despite its shortcomings, the RSBSA is quite a useful tool as a starting point for the creation of a unified government database in the agriculture and fisheries sector. Field validation of the database is necessary, and preferably done by only one government agency, but if not possible, only one government agency must consolidate the validated lists of the RSBSA. Also, the registry must be updated regularly, at least every 3 years, since the agriculture sector is constantly changing, and a fisherman this year may no longer be a fisherman next year, or a farmer might be planting another crop next year. Given the cost of collecting the data for the RSBSA, other options for updating the information should be explored. For instance, the Community-Based Monitoring System that the local government units are implementing could be the vehicle for collecting the necessary information to update the RSBSA. Interoperability of the different registry and monitoring systems should be aimed at to maximize the use of information from different sources

During the validation process, adding the middle names, and verifying the correct spelling of the names of the farmers, fisherfolk, and farm laborers in the list, by asking for any government-issued ID, barangay clearance, or any document that can attest to the correct spelling of the name from the respondent will be very helpful. Adding a unique identifier in the database would also improve the usability of the registry.

The operational definition of farmer, farm laborer and fisherfolk must be reviewed to ensure that they are correctly identified during the data collection activities. In the case of PCIC, for example, insurable interest is an important concept, so there must be a way for PCIC to initially screen those farmers, farm laborers, and fisherfolk that has insurable interest in the registry.

Making the RSBSA a working and functional registry for those in the agriculture and fisheries sector can be an efficient program targeting tool, provided that proposed improvements will be materialized.

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Focus Group Discussions with Farmers and Key Informant Interviews with LGU Officials. Malaybalay, Bukidnon. March 11, 2015.

Focus Group Discussions with Farmers and Key Informant Interviews with LGU Officials, Manolo Fortich, Bukidnon. March 11, 2015.

Appendix A

Comparison of Scope and Data Items Covered in Phase I and Phase II of the RSBSA

Data Item	Batch 1	Batch 2
Profile of Farmer, Farm Laborer, Fisherman		
Name	✓	✓
Sex	✓	✓
Age	✓	✓
Birthdate	✓	✓
Place of Birth	✓	✓
Name of Parents	✓	✓
Marital Status	✓	✓
Name of Spouse	✓	✓
Highest Educational Attainment	✓	✓
Whether with other Sources of HH Income	✓	✓
Whether or not a CCT/4Ps Beneficiary	✓	✓
Membership in Agricultural/Fisheries Org	X	✓
Additional Information on Farmer, Farm Laborer, Fisherman		
Type of Agricultural Worker	✓	✓
Type of Agricultural Activity	✓	✓
Whether or Not a Farmer or Farm Laborer is an ARB	✓	✓
Kind of Work as Farm Laborer	✓	✓
Work With or Without Pay in the Farm	✓	✓
Form of Payment	✓	✓
Farm Parcel		
Number of Parcels	✓	✓
Physical Area	✓	✓
Tenurial Status	✓	✓
Proof of Ownership	✓	✓
Document Number	✓	✓
Name of Registered Owner	✓	✓
Location	✓	✓
Main Use	✓	✓
Irrigated/ Rainfed	✓	✓
Main Purpose for Growing of Crops	✓	✓
Top 3 Crops Planted	✓	✓
Physical Area Planted to the Crop	X	✓
Main Purpose for Raising Livestock	✓	✓
Top 3 Livestock Raised	✓	✓
Number of Heads	✓	✓
Main Purpose for Raising Poultry	✓	✓
Top 3 Poultry Raised	✓	✓
Number of Birds	✓	✓
Data Item	Batch 1	Batch 2

Fisheries		
Type of Fishing Activity	✓	✓
Main Purpose for Capturing Fish	✓	✓
Category of Fishing Activity	✓	✓
Highest Gross Tonnage of Fishing Boat/ Vessel	✓	✓
Type of Fishing Boat/ Vessel	✓	✓
Ownership of Fishing Boat/ Vessel		
Main Purpose of Aquacultural Activity		X
Type of Aquafarm		
Type of Species Cultured in the Aquafarm		