Rice Self-Sufficiency Bulletin
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Will PNoy seriously pursue rice self-sufficiency roadmap?

by Hazel Tanchuling

http://2.bp.blogspot.com

Every Filipino wastes an average of a spoonful of cooked rice every day. This is equivalent to 1.25 million kilos or 25,000 bags of milled rice a day. In one year, the wastage would run up to 456,000 metric tons (MT), which can feed an additional 3.8 million Filipinos. If saved, this could also save the government $319 million a year from rice imports.[1]

After several years of failing to improve production to incremental levels, the Department of Agriculture is integrating demand management as a key strategy in its rice sufficiency program. The "Save Rice, Save Lives" campaign of Philrice highlights this key strategy of government.

While there is a valid basis for launching such a campaign, the government may be focusing too much on managing consumption rather than increasing national rice productivity. After all, as statistics would show, the more important and possibly most natural strategy to decrease demand for rice is to promote massive rural employment. The data below indicate that consumption of rice goes down as income level goes up.

However, the DA's Food Sufficiency Roadmap for 2010-2016 contains no concrete plan aimed at reducing rice wastage. What is clear is that the DA is toying with the idea of convincing Filipinos to eat corn and cassava as among their staple food, aside from rice.

Aside from the Food Sufficiency Roadmap, the government is presently crafting its Medium Term Philippine Development Plan (MTPDP). If one will look at the draft documents (Draft Agriculture Chapter as of Nov 24, 2010), there is a reason to fear that President Noynoy Aquino's administration is moving away from the rice sufficiency thrust, as if the last rice crisis was not enough lessons for the country.

If the draft MTPDP is a clear indication of the things to come, it has no policy statement on rice sufficiency and mentions only about ensuring the availability of staple food at reasonable prices. President Aquino is simply not serious in pursuing rice self-sufficiency.

1. Agriculture Business Week Online Magazine. "Rice Wastage Amidst Plenty", sourced Dec 1, 2010 from http://www.agribusinessweek.com/rice-wastage-amidst-plenty/

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The draft on agriculture cited our lack of comparative advantage in rice production, hence, the need to review the rice sufficiency call . On the other hand, the draft highlighted the country's comparative strength in high-value crops.

Some lessons we learned from our recent past may be important to recall. Even our ASEAN neighbors have learned real hard. Malaysia, who, like the Philippines was rice deficient, at the height of the 2008 rice price crisis, went to the extent of offering to barter its palm oil for rice. For a time, Malaysia has focused on high-value crops particularly palm oil, and gave rice production the least priority. After the crisis of 2008, it has successfully raised its self-sufficiency level from the average 70% to around 77% in 2009. It was even targeting more than 80% rate for 2010 and promises to prioritize rice in 2011.

Distribution of Total Family Expenditures by Expenditure Group and Income Class: 2003

EXPENDITURE GROUP AND AREA	TOTAL	INCOME CLASS								
		UNDER 20,000	20,000 - 29,000	30,000 - 39,999	40,000 - 49,999	50,000 - 59,999	60,000 - 79,999	80,000 - 99,999	100,000 - 249,999	25,000 & OVER
Number of Families	15,269,655	364,569	836,651	1,170,541	1,388,507	1,196,126	1,983,219	1,496,280	4,813,253	2,020,509
Total Family Expenditures (in millions)	2,038,471	5,278	19,170	42,031	59,068	69,028	147,538	145,745	760,270	790,343
Food	43.1	63.8	62.4	61.6	60.5	59.0	56.5	53.5	45.8	31.7
Total Food Consumed at Home	37.7	63.3	61.7	60.4	58.7	56.6	53.3	48.9	39.6	25.6
Cereal and Cereal Preparations	11.1	28.6	27.4	26.2	24.3	22.4	19.4	16.1	10.9	5.5
Roots and Tubers	0.6	2.0	1.7	1.3	1.2	1.1	0.9	0.7	0.5	0.3
Fruits and Vegetables	4.3	7.3	7.0	6.8	6.5	6.2	5.8	5.4	4.4	3.1
Meat and Meat Preparations	6.7	3.7	4.3	4.8	5.3	5.7	6.6	7.3	7.8	6.0
Dairy Products and Eggs	3.2	2.3	2.5	2.9	3.1	3.3	3.5	3.6	3.6	2.8
Fish and Marine Products	5.5	10.5	10.4	10.2	9.8	9.4	8.6	7.6	5.6	3.4
Coffee, Cocoa and Tea	1.0	1.5	1.7	1.7	1.8	1.7	1.6	1.4	1.1	0.6
Non Alcoholic Beverages	1.5	0.4	0.8	1.0	1.2	1.3	1.5	1.6	1.6	1.3
Food not Elsewhere Classified	3.8	6.9	5.8	5.5	5.5	5.5	5.5	5.2	4.2	2.5

Source: NSO data, as cited by former Secretary Joey Salceda in his powerpoint presentation, "A Roadmap to Food Security, April 4, 2008"

Multi-stakeholders Proposals for National Rice Sufficiency

Rice Watch and Action Network (R1) Lead Convenor Jessica Reyes-Cantos speaking before the rice stakeholders who participated in the National Rice Self-sufficiency workshop on November 25-26 2010.

The various proposals presented here were collated from the various consultation workshops sponsored by Rice Watch and Action Network such as the Roundtable Discussion on NFA reforms in January 2011, The National Workshop on Alternative Strategies to National Rice Sufficiency attended by various rice stakeholders held last November 2010 and specific input from the lessons of the Agriculture Planning for Climate Change Project in Gerona, Tarlac and Irosin, Sorsogon of R1 and input by the Pambansang Koalisyon ng Kababaihan sa Kanayunan (PKKK).

The matrix here reflects the current goal statements and main strategies of the DA for 2012.

Goal 1. ***Increase Farmers and Fishers Income***	**Proposed Programs**
Promote income diversification strategies (i.e. crop diversification, alternative livelihoods, value adding	Promoting crop diversification
	Palay support program to cover at least 10 percent of local rice production
Improving Research and Development work of low-cost sustainable technologies and other climate adaptive technologies	Dissemination of Sustainable Agriculture
	Research and Development to further develop and improve farmer innovations and climate-sensitive adaptation technologies and to determine the pathways through which even incremental changes in the weather variables will impact on crops, animals and fisheries production.
	Extension program to promote these low costing sustainable enhanced technologies

Goal 2. ***On the promotion of Public and Private Agriculture and Fisheries Investments***	**Proposed Programs**
Promotion of private sector investments only in areas that are identified by the LGUs in their Strategic Agriculture Development Agenda	LGU Support Program for Agriculture Development Agenda / Climate Change Adaptation Formulation and Localization of Code of Conduct for Private Sector Investments' Regulation
Promote Stakeholders'/Communities participation in the designing of investment regulations	Define the PUBLIC in the concept of PPP—to INCLUDE farmers and their livelihoods and the larger community. The projects should not result to land conversion. Formulation of a National Code of Conduct for Investments in Agriculture and Fisheries Establish community standards, regulations and safeguards against land conversion, environment and natural resources degradation in the Code of Conduct
Goal 3. ***Restore Agriculture and Fisheries Trade Surplus***	**Proposed Programs**
Pursue sufficiency production of rice	Rice Productivity Program composed of the following components: **Seeds.** Selective seed subsidy. Seed subsidy given to poorest of the poor farmers. Meanwhile, study the impact of removal of seed subsidies in areas where it was removed. Consider giving seeds to cooperatives instead of LGUs as a strategy to avoid anomalous distribution. Promote seed-banking and farmers breeding as an alternative strategy to the previous seeds distribution program; **Fertilizers.** Develop a clearer plan on fertilizer intervention. To define the mechanisms for the organic program implementation at different levels Irrigation and Water. Give greater focus on small water irrigation projects as a climate adaptation measure Implement watershed protection/reforestation in coordination with other agencies Review irrigation designs to respond to the challenges of climate change **Postharvest.** There are some unused dryers given to LGUs that must be recalled and transferred to other areas in need; Traders who are beneficiaries of credit support of government should in return provide incentives to farmers who will seek milling services from them; Design of the facilities should be appropriate to the needs of farmers and local conditions **Extension work.** Maximize agencies that are receptive in technology provision such as the use of Agriculture Training Institute; Regional Agriculture and Fisheries Council, Philippine Rice Research Institute (Philrice) and even the Department of Agrarian Reform in areas or local government units where extension is virtually absent or wanting; Openness in the promotion of farming approaches/technologies that are designed to decrease costs of production but has the possibility of increasing income. The System of Rice Intensification (SRI) was cited as an example.

	In the spirit of fairness and the promotion of farmers' choice, there should be no preferential treatment to a single technology Organizing and clustering of farmers so that they are better able to take advantage of the support services **Trade.** Retain Quantitative Restrictions (QRs) even after the 2012 expiration Undertake NFA reforms. (please see components below)
Curb smuggling	Trade monitoring Border surveillance program
Enhance data generation capacity	Improvement in data generation and conducting reliable surveys to improve data on production, trade (export/import), buffer, etc.) Specifically on rice, harmonize the government data on rice consumption because of the huge difference in the rice consumption data of the Department of Science and Technology (112 kg/per capita), National Statistics Office (106 kg/per capita) and the Bureau of Agriculture Statistics (119 kg/per capita). Consumption may be actually smaller considering that Overseas Filipino Workers already account for 10% of the population. The agency also needs to consider age as 0-12 might not be consuming that much rice.
Goal 5. ***Increase food security***	**Proposed Programs**
Promoting food sufficiency	Rice Sufficiency Program
Targeting of most vulnerable in the distribution of subsidized rice	Targeted rice distribution program
Implement reforms within National Food Authority (NFA) towards strengthening its role and capacity in local procurement	Increase local procurement fund to a capacity level of 10%; This amounts to 28-29 Billion pesos; Timely release of NFA procurement fund, about two weeks to one month before harvest season; Increase facilities, assets such as trucks, post harvest facilities and give farmers access to facilities or such services Assign a multi-stakeholders mechanism to monitor local NFA facilities to reduce possible leakages Continue with a targeted rice subsidy system, making sure that subsidized rice do not go to the traders. Relax moisture content requirements to ensure that poorer farmers may benefit from local procurement benefits. Transparency in the agreements concerning food and agriculture subsidies including farmers' passbook that would facilitate access to NFA services and incentives Reforms include the re-constitution of the NFA Council who decides on rice importation to ensure stakeholders participation Providing sufficient budget for local rice procurement

Cross Cutting Strategies	
Strategy	**Cushion the impacts and ensure adaptation to climate change**
• Redesigning of agriculture infrastructure using climate information • Use of climate information in production decisions as part of the early warning systems in agriculture and to ensure placement of appropriate agriculture infrastructure • Climate change sensitive subsidy/programs that include: * Promotion of community seedbanking and farmers breeding to develop climate sensitive/locally adaptive rice varieties and production of low costing but high quality seeds developed by the farmers	
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Strategy	**Strengthening and mobilizing greater LGU support for agriculture and fisheries**
• Policy for LGUs to set aside lands for agriculture in their Land Use Planning (CLUP) • NATIONAL LAND USE FRAMEWORK to safeguard interest of small farmers especially from abuse of LGUs in reclassification of agricultural lands in the name of PPPs • INVENTORY OF AGRICULTURAL LANDS including IRRIGATED AND POTENTIALLY IRRIGABLE LANDS • Awareness campaign to support food security and climate change objectives • Partnership with LGUs that have successful solid waste management program for the production of organic fertilizers • Support for capacity building and technology dissemination to LGUs' agriculture technicians	
Strategy	**Restore integrity and end pervasive corruption**
• Institutionalize civil society participation in the crafting of DA plans and budget at all levels • Institutionalize a system for civil society participation in budget tracking and monitoring plan implementation at all levels • Ensure transparency by online posting of budget per region and expenditures • Audit of previous irrigation project the soonest possible time before providing sustained high budget for questionable and inefficient NIA-managed irrigation projects.	
Strategy	**Rationalize DA budget**
• Ensure budget to support productivity programs and other priority programs, including, credit, crop insurance, research and development, etc. • Re-examine the budgets of agencies to reflect appropriate budget needs .The huge budget cut in Philrice from P400 million to P91 million may hamper research and development efforts. The crop insurance budget was cut to P183 million from the proposed P613 million that should cover at least 10 percent of farmers.	

- Scoping of all available funding, i.e., General Appropriations Act, Agricultural Competitiveness Enhancement Fund, Official Development Assistance, etc to ensure fund sources for all programs and avoid replication and misuse
- Ensure civil society participation in program formulation and budget monitoring

Strategy	Strategy on Rural Women

- Women's community seed banking and exchange program
- Setting up of women-managed nurseries and production areas for traditionally and locally adapted varieties in rice, food crops, vegetables
- Support to rural women trainers for sustainable agriculture and fisheries
- Post-harvest facilities
- Market linkage and support for women's products
- Composting facilities and equipment for organic fertilizer production
- Disaster preparedness training for women

Strategy	Strengthen credit, guarantee and insurance

- Implement the Credit Assistance program that should have P2 billion budget per year or a total of P12 billion for the whole duration of implementation of Agriculture and Fisheries Modernization Act (AFMA).
- Explore negotiated lending rates for small farmers and review the charter of Land Bank of the Philippines
- Relax rules on interest rates and access requirements of AFMA credit and Agri-Agra law.
- Define different access requirements for small farmers seeking lower amount of loans (i.e. 25,000) with that of acquiring higher loans.
- Facilitate access to credit by unorganized farmers
- Provide crop insurance subsidy to small farmers and fishers. Disseminating information on crop insurance for individual coverage.
- Use farmers organizations and cooperatives as direct conduits for credit.

Seed Subsidy Component of DA's Rice Road Map Reviewed

By Jean Lugasip, SEARICE

The Philippines' rice sector has been trying to reach the self-sufficiency goal for sometime now. The decline in rice production since the 1980s can be accounted from the dwindling production area being planted due to agricultural land conversion to housing and industrial uses and decreasing public investments in agricultural infrastructure, research and extension. Thus, much of the growth, if any, was made possible by technology-aided yield improvements (SEARICE Review, November 2008)

During the term of the Arroyo administration since 2001, the GMA Rice Program has been focused on hybrid rice as the only technological option available to the government to attain self-sufficiency, aided by generous seed and input subsidies. During this time, the FIELDS (Fertilizers, Irrigation, Infrastructure, Education and training, Loans, Dryers and other Postharvest facilities and seed of high yielding varieties) Program enjoyed a huge budget amounting to P43.7 billion to attain the rice self-sufficiency plan by 2013. Out of this amount, P1.29 billion was allotted for the provision of subsidies to fertilizers and another Php 9.2 billion for seed subsidies. Given the large amount allocated to the said program, how can the farmers say the target for rice sufficiency in 2013 remains an illusion?

The research of Southeast Asia Regional Initiatives for Community Empowerment (SEARICE) on the Critical Assessment of the Arroyo Government's Rice Self Sufficiency Program found the whopping allocation for FIELDS as not worth the intended benefits. The input subsidies, particularly on seed and fertilizers were treated as dole-outs that don't really help the farmers in increasing their yield. Instead, it fosters a patronage system that local politicians exploit to their political gain and enriches a select group of private suppliers that also cultivates corruption.

a. Questionable benefits to farmers:

The sudden increase of allocation for seed subsidies particularly hybrid rice was a major concern. Over the past seven years since its commercialization and despite the huge amount of budget for seed subsidies under GMA's Hybrid Rice Commercialization Program, the program has consistently fell short of its planting targets with 50-99% of the farmers reportedly dropping out from the program. What is the assurance that farmers will embrace the technology this time?

The provision of production or input subsidies is necessary to promote a technology at its initial stage. Yet, the FIELDS program has been subsidizing technology that was tried for several years and with little success to show for it. Hybrid rice subsidies, in particular, which should have ended in 2007, continued until 2010 under FIELDS.

b. Corruption issues:

Furthermore, the massive amount renders the program prone to corruption as it is basically incentives-driven. The rice master plan explicitly states that some P28 million will be earmarked for incentives to agriculture technicians who will be given P200 for every bag disbursed, aside from the expected LGU counterpart. Technicians and agriculture extension personnel are understandably underpaid, especially those employed by the LGUs on contractual basis. However, why will they be given incentives when distribution of seeds, fertilizers plus pesticides is part of regular extension services to farmers, in the first place?

c. Technological risks:

The seed subsidy program prescribed seven varieties of hybrid rice that put the food security of the country more prone to pest and disease epidemics. The government put so much of its stake on hybrid rice varieties to feed our population despite increasingly erratic seasonal patterns and weather conditions. Hybrid rice varieties during the wet season have become susceptible to bacterial leaf blight disease while a number of certified inbred varieties were susceptible to stem borer insect attacks.

More than enough money was invested in technology to further increase rice productivity, particularly in irrigated areas, yet, the problem still exists. Did the provision of seed subsidies really address the rice self-sufficiency problem?

Based on the **Proposed Rice Road Map** (2012-2016) presented during the National Rice Summit organized by R1 in November, providing input subsidies remains to be among the core programs to increase rice production. However, the strategies used before should be revisited and the government planners should identify those that have more sustainable effect on the development of the rice industry.

Seeds and seedling management account for only 9% of the rice production constraints. Equally significant are insect pests and diseases that comprise 35% of the impact on productivity, water management (26%); fertilizer and soil management (21%) and weeds (9%). Rather than merely providing input subsidies that have been proven costly, funds should be reallocated to financing public goods and services that enable and strengthen farmers, rural communities and local government units' capacities to effectively and efficiently manage their own resources to address these constraints.

PROPOSALS AND RECOMMENDATIONS:

1. ***The Rice Self-Suffictency plan should lay-down a clear phase-out plan for seed subsidies.*** This should define strategies and approaches to help farmers secure their own seed requirements as a production input and its associated technologies that would lessen their dependency on external forces.
2. Support the ***Development of Local Inbred Rice Seeds Program within the Framework of Sustainable Agriculture*** as viable alternative and to support the Local Government Units' Extension Service

   Objectives of the Local Inbred Rice Seeds Program:

   i. Reduce cost of rice production especially on seeds by 50%, on pesticide use by 15-30%, and/or fertilizer use by 10%;
   ii. Improve farmers' yields by 10-15% through improved seed selection techniques, and soil and water management practices;
   iii. Develop rice farmers' capacity to manage and improve their local agriculture resources;
   iv. Develop participatory on-farm researches and technologies that are responsive to farmers' needs;
   v. Strengthen LGU's extension and technical support capacities particularly on rice farmers.
3. Money for the rice sector should not be spent on interventions that can deliver only short-term benefits, and encourage rent-seeking behavior and corruption. Resources should be channeled to long term investments, such as, improving the capacity of farmers to manage their agricultural resources that include land, water and seeds.

   During the summit, the seed growers and some farmers raised the question of whether they are ready for the removal of subsidies or not. They suggested for a mechanism for selective subsidies especially for certified seeds. Meanwhile, some also raised the removal of seed subsidies as an opportunity for the farmer developed varieties to be part of the "seed market".

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SEARICE Review November 2008

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Benefits of current irrigation systems remain elusive to farmers

By Jayson Cainglet

The Gibong Left Bank National Irrigation System (GLBNIS) is one of the two sub-projects of the Southern Philippines Irrigation Sector Project (SPISP) that is being funded through a loan from the Asian Development Bank (ADB). The irrigation system is located in the province of Agusan del Sur in the CARAGA Region.

The project hopes to provide irrigation for about 1,077.49 hectares of farm lands, supporting about 708 farming households. The project aims to improve the reliability of the people's food supply and raise the level of their income, that is, to many of them, below the poverty level. This sub-project covers both the development of new areas and the extension of irrigation services to additional land area in the existing irrigation subsystem. The areas covered by Gibong LBNIS are located in the municipalities of Prosperidad and San Francisco, in Agusan del Sur.

Water-Related Projects

The GLBNIS is but one in a number of water-related projects of the ADB. Stakeholders who attended the National Rice Summit in November, organized by Rice Watch and Action Network (R1), lamented that like many other water projects of the ADB, the lives of the farmers of Prosperidad and San Francisco have not improved. They continue to contend with high water fees, rising costs of farm inputs and low farm gate prices.

According to the Task Force Food Sovereignty (TFFS), the SPISP was supposed to be completed last December 31, 2005. The Gibong farmers said that the project is far from getting completed and they have not signed any document from the National Irrigation Administration (NIA) saying that the project is finished. It is even worse that the farmers have been paying the irrigation associations (IAs) P2,500 per hectare per cropping for dry season and P1,500 per hectare per cropping for wet season, while suffering plummeting yields.

Prior to the SPISP when only earth canals were constructed, farmers boasted of 80-90 sacks per hectare. But since the start of the SPISP expansion in year 2007, their yield fell to 30-40 sacks per hectare. For the others whose yield increased, their gain was immediately negated with higher irrigation fee because much of their income was allotted to irrigation service fee (ISF).

Actual Beneficiaries

As in other similar programs, the stakeholders asserted that the farmers are not the ones benefitting from these water-related projects which are actually loans, but the domestic and foreign private companies who will have full access to privatized water utilities. These companies are even granted government loans or bail-outs in case the profits they expected from these ventures do not materialize. They added that most of ADB's water projects are loans categorized under the bank's capital resources and therefore impose market-dictated interest rates. This is increasing the indebtedness of client countries, in this case, the Philippines to ADB and other International Financial Institutions (IFIs).

Policy Proposals from Stakeholders

Among others, the following were the policy recommendations of the stakeholders during the National Rice Summit:

1. Review and cancel ADB and other IFI irrigation projects that push for the privatization of national and local irrigation systems, if found disadvantageous to farmers;

2. Review the devolution of communal irrigation systems to local government units and case operations, if found ineffective;
3. Suspend the implementation of Irrigation Management Transfer to IAs and review the IMT scheme and public –private partnerships in irrigation with the participation of stakeholders at all levels.
4. Adopt the general guidelines of the Bureau of Soils and Water Management (BSWM) for a demand-driven Small-Scale Irrigation Projects (SSIPs), i.e.

   Small Water Impounding Projects (SWIP),
   Small Diversion Dam (SDD),
   Shallow Tube Wells (STW), and
   Small Farm Reservoir (SFR)

   Under these schemes, the BSWM personnel will assess the request of LGUs or stakeholders in constructing and improving their irrigation systems. Once approved, the projects are constantly monitored. More importantly, the project should give opportunity to improve the capacity of farmers through trainings conducted by BSWM, DA-RFU and LGU on the new available rice production technologies, soil and water conservation, as well as the maintenance and operations of these projects. Through these trainings, the roles of farmers, government and other players will become cohesive as one entity, strengthened, and hence, conflict on the use of common water resource can be prevented.

   The positive impacts of communal, small-scale irrigation projects are now slowly being recognized.
5. Instead of implementing the NIA Rationalization Plan, the NIA must be strengthened and re-organized to curb graft and corruption, promote transparency and accountability and institutionalize the participation of small farmers' organizations in the formulation and implementation of NIA policies and plans. This re-organization should include: a) Review of the bidding system and; b) Audit of the use of irrigation funds since 2001.
6. Increase public investments in irrigation.

   a) In line with the government's target of rice self-sufficiency, rehabilitate deteriorating and damaged public irrigation systems and build new systems to initially cover 150,000 hectares of un-serviced areas until 2013.

   b) Create a fund within NIA to repair irrigation projects that are damaged by calamities and extreme weather situations

   c) Declare a moratorium on irrigation fees in areas devastated by droughts, floods and other extreme weather situations.
7. Undertake massive reforestation and watershed rehabilitation.
8. Enact a comprehensive land use law.
9. Adopt food sovereignty as a framework of food and agriculture policies.

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It's Never Too Late for Improved Rice Crop Insurance

by Aurora Regalado

The Philippines is one of the countries most prone to disaster in the world (Table 1) and the worst seriously affected in Southeast Asia (Table 2). With such a situation, it shouldn't have been a brainer to have one's crop insured, right? But not in the Philippines.

Table 1: Countries most exposed to natural hazards from multiple hazards (Top 60 based on land area with 2 or more hazards)

1. St. Kitts and Nevis
2. Macau, China
4. Hong Kong, China
6. Vanuatu
7. Costa Rica
8. Philippines
9. Nepal
10. Guatemala

Table 2: Total number of disasters in Southeast Asia 1990–2009*

Country	Number	Sample %
Cambodia	15	1.9
East Timor	19	2.4
Indonesia	223	27.6
Lao PDR	22	2.7
Malaysia	52	6.4
Myanmar	21	2.6
Philippines	237	29.4
Singapore	3	0.4
Thailand	89	11.0
Timor-Leste	2	0.2
Vietnam	124	15.4
Total	807	100.0

*as of data generated in April 2009.

Source: EM-DAT : The OFDA /CRED International Disaster Database www.embat.be – Université Catholique Louvain – Brussels – Belgium.

Crop insurance is defined as "a risk management tool designed to even out agricultural risks and address the consequences of natural disasters to make losses more bearable, especially to the marginalized farmers."[1] To mitigate risks inherent in Philippine agriculture, the government has been implementing a crop insurance program since 1981 through the Philippine Crop Insurance Corporation (PCIC). It started to cover rice crop and later added corn in 1982. The program expanded its coverage to include tobacco (1991) and High-Value Crops (1993).

Today, in addition to its crop insurances, PCIC has other insurance packages for livestock and non-crop agricultural assets and term insurance plans.

For rice, the insurance covers both inbred and hybrid varieties (see Box 1 for details).

[1] Reyes and Domingo, 2009

Box 1: AMOUNT OF COVER

The insurance shall cover the cost of production inputs per Farm Plan and Budget, plus an additional amount of cover at the option of the farmer of up to a maximum of 20% hereof to cover portion of the value of the expected yield, subject to the following prescribed cover ceilings:

Inbred Varieties
Irrigated/Rain fed P39,000 per ha.
Seed Production P41,000 per ha.

Hybrid Varieties
Commercial Production (F1) P42,000 per ha.
Seed Production (A x R) P52,000 per ha.

TYPES OF INSURANCE COVER

Multi-Risk Cover - This is a comprehensive coverage against crop loss caused by natural disasters (i.e., typhoon, flood, drought, earthquake, and volcanic eruption) as well as pest infestation and plant diseases.

Natural Disaster Cover - This is a limited coverage against crop loss caused by natural disasters.

PERIOD OF COVER

The period of cover shall be from direct seeding or upon transplanting up to harvesting; provided that insurance coverage shall commence from the date of issuance of the Certificate of Insurance Cover (CIC) or actual date of seeding or upon transplanting, whichever is later.

INSURABLE RICE VARIETIES

All rice varieties accredited for production by the National Seed Industry Council (NSIC) are insurable.

PREMIUM RATE

Premium rate is variable per region, per season and per risk classification. This shall be shared by the farmer, lending institution and the government

COVERED RISKS

- Natural disasters including typhoons, floods, drought, earthquakes, and volcanic eruptions.
- Plant diseases, e.g., tungro, rice blast/neck rot, grassy stunt, bacterial leaf blight and sheath blight.
- Pest infestation by any of the following major pests: rats, locusts, armyworms/cutworms, stem borer, black bugs and brown plant hopper/hopper burn.

National Composite Rates and Premium Sharing (%)

Borrowing Farmers

Multi-Risk Cover

	Low Risk	Medium Risk	High Risk
Farmer	1.46	2.91	4.37
Lending Institution (LI)	2.00	2.00	2.00
Government	5.90	5.90	5.90
TOTAL	9.36	10.81	12.27

Natural Disaster Cover

	Low Risk	Medium Risk	High Risk
Farmer	1.12	2.23	3.35
Lending Institution (LI)	1.50	1.50	1.50
Government	4.22	4.22	4.22
TOTAL	6.84	7.95	9.07

Self-Financed Farmers

Multi-Risk Cover

	Low Risk	Medium Risk	High Risk
Farmer	3.46	4.91	6.37
Government	5.90	5.90	5.90
TOTAL	9.36	10.81	12.27

Natural Disaster Cover

	Low Risk	Medium Risk	High Risk
Farmer	2.62	3.73	4.85
Government	4.22	4.22	4.22
TOTAL	6.84	7.95	9.07

Source: PCIC

Crop Insurance Performance

PCIC reported that it was able to serve some 3.468 million farmers, insuring a total sum of P31 billion from 1981 to 2007 (Table 3). It was able to cover more than 300,000 farmers in the 1990s. This went down in 2001 to only about 50,000 famers covered and further down to about 36,000 farmers by 2006. PCIC attributed the decline to the decreasing number of self-financed farmers insuring their crop.[4]

Key Problems Affecting Philippine Crop Insurance Program

- High overhead cost and insufficient investment funds
- Dependence on borrowing farmers' market
- Lack of market orientation

These problems were reiterated during the credit and insurance group discussion at the Workshop on Strategies for Rice Self-Sufficiency in November 2010. The farmers also raised some problems they have encountered when claiming indemnity after their farms were hit by the last typhoon, Juan. They said that the Local Government Unit's Municipal Agriculture Officer undervalued the damage to their crops.

The PCIC representative replied the assessment is not done by the LGU-MAO alone to ensure objectivity. The agency also explained that they could cover only about 3 percent of farmers given a budget of only P183 million.

Specific CSO-GO-Private Sector's Proposal

To cover a modest 10% of farmers, the workshop group composed of civil society groups, government and private sector proposed to increase the crop insurance budget to P613 million starting 2011.

Table 3. Cumulative Insurance Coverage and Claims Paid for Rice and Corn from (1981-2007)

Insurance Lines	Insurance Coverage		Claims Paid	
	No. of Farmers/ Policies Written	Sum Insured (PM)	No. of Farmers/ Policies Paid	No. of Farmers/ Policies Paid
Rice	3,010,929	26,437.23	845,812	1,960.54
Corn	457,226	5,011.11	189,548	611.22
TOTAL	3,468,155	31,448	1,035,360	2,572

Source: PCIC 2007

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Stronger government role in rice trade urged

By Alice Raymundo

Participants in the last Multi-Stakeholder Summit on Rice Self-Sufficiency held in Quezon City on November 25-26, 2010 posted these proposals during the workshop tackling the National Food Authority (NFA) and Marketing.

This proposition stemmed from the analysis that, given sufficient support that includes marketing, the local rice industry has the capacity to produce enough to feed the country's population. And the NFA is responsible for providing essential services, farm support price and subsidized rice, toward attaining food security.

However, the agency historically played a minimal role in rice trade that it cannot influence the supply and prices of rice effectively. Its annual palay (unmilled rice) procurement is at a dismal three percent of the national production only, leaving the rest in the hands of private traders. The limited palay procurement is even attended by corruption, stringent regulations and bureaucratic delay that made it inaccessible to many farmers. In most instances, only the rich farmers, rice traders and/or cooperatives under their control benefit from NFA's price support and subsidized rice.

The lack of marketing support for small rice farmers contributed to the stagnating rice production. Unfortunately, instead of increasing the support to boost rice productivity and cope with increasing demand, the government resorted to increasing importation. The flooding of imported rice provided yet another disincentive to farmers as they were forced to compete with heavily subsidized imported rice. And so the country is trapped in a cycle of decreasing harvest and increasing rice import.

The liberalization of rice trade further facilitated the soaring rice imports especially over the last 15 years. Thus, from being a rice exporter, the Philippines now has become the world's top rice importer, relaying on the global market for about 12 percent of its total rice needs.

Massive importation also created the condition for more profiteering and corruption in rice trade. It was President Noynoy Aquino himself, who publicly announced over importation by the past administration and that this contributed the agency's losses.

The Philippine Rice Self-Sufficiency Road Map (2010-2016) failed to offer a promising prospect in improving marketing support for the rice industry. Instead, it rendered the NFA's role even smaller while private sector's participation in the domestic rice industry, particularly in rice importation was promoted. The Road Map limited the agency's role to maintaining a 30-day buffer stock only. Even palay procurement will be limited to buffer stock needs only.

Instead of selling cheaper rice to the general public, the NFA will increase its selling price progressively until it reaches the "market levels" while the support shifted to the targeted Conditional Cash Transfer scheme of the Department of Social Welfare and Development (DSWD).

Amidst all these, the workshop participants agreed that the country still needs a government agency that will support and regulate the rice industry. They put forward the following proposals to reform the NFA and make it more effective in providing the needed services:

1. Increase NFA's palay procurement fund and ensure that all this will be spent on buying palay from small Filipino farmers and not on importation. The NFA should buy at least 10 percent of the national rice harvest so that it can influence the price and trade of rice in the country. Along with this, the following measures were proposed:

a. Relax the requirements on rice procurement such as moisture content and purity so that more farmers can sell their rice produce to NFA.
b. Release the palay procurement funds at least two weeks to one month before the harvest season to give NFA sufficient time to buy palay from farmers.
c. Improve and add more post-harvest facilities such as dryers and allow small farmers to use them.
d. Deploy more trucks and assign more employees to buy palay directly from the farm, particularly in far-flung areas.

2. Gradually phase out rice importation, limiting this to being an emergency measure only.
3. NFA must continue to sell cheaper rice to consumers. It must ensure that the poor people and not the rice traders benefit from subsidized rice.
4. Maintain a 90-day rice buffer stock to put the agency in a better position to respond to emergencies such as calamities and sudden drop in rice production.
5. To address corruption within the NFA, the government can assign watchdogs or monitors from outside the agency and to consult with different stakeholders such as farmers' organizations, rural cooperatives, consumer groups, mass media and concerned NGOs in the formulation and implementation of the agency programs.

The Rice Watch and Action Network (R1) organized the National Rice Summit in celebration of the National Rice Month. Seven delegates including representatives from farmer federations, the NFA Employees Association and a rural development NGO joined the Workshop on NFA and Marketing.

IRRI Photo

Agriculture Productivity Failed Amid High Infra Budget[1]

by Hazel Tanchuling

As in any government agency, a large part of the pie of the agriculture budget goes to physical infrastructures. The usual big ticket infrastructure items are irrigation, farm to market roads and post harvest facilities.

From the 2009 agriculture budget of P44 billion, irrigation was set to get P13.2 billion but actually spent P17.5 billion at the end of the year. Farm to market roads also got a significant part, as well as post harvest facilities.

It is thus, with great interest to find no significant improvements in agriculture productivity despite the increase in budget allocation for these infrastructure items. With all the doubts cast on agriculture program implementation, it may be worthwhile to note whether these infrastructures were actually put in place.

The assessment results of the National Agriculture and Fisheries Council (NAFC) with the help of the Regional Agriculture Fisheries Councils (RAFC) may serve as an initial guide toward this review. NAFC which was mandated to monitor agriculture programs under Executive Order 116, presented the results during the NAFC Committee on Cereals Meeting in the last quarter of 2010.

However, the study was very limited and covered only the projects' existence in the area but missed out on the evaluation of the quality of infrastructure and its usefulness. The areas covered were the Ilocos region, Calabarzon, Central Luzon, MIMAROPA, Bicol, Western Visayas, Eastern Samar, Zamboanga Peninsula, Northern Mindanao, Davao, CARAGA and ARMM. The study was done in the first quarter of 2010.

Process

In the review, NAFC secured from the concerned DA offices and attached agencies the list of 2008-2009 projects. These were provided to the concerned RAFC which reconciled the data with the DA Regional Field Units (RFUs), and the other Regional Offices of DA attached agencies/bureaus and other departments.

In the process, RAFC noted data discrepancies and thus, had to prioritize the projects that can be monitored and validated. From the prioritized list, RAFC assigned the Regional and Provincial Monitoring Teams (RMTs/PMTs) that will conduct the evaluation, and these were endorsed to the RED .

Prior to monitoring and validation by the RMTs/PMTs, the RED requested project implementers to accomplish monitoring forms for farm to market roads, irrigation and post-harvest facilities. The teams conducted entry and exit conferences with the DA REDs, Local Chief Executives (LCEs) and/or Heads of concerned LGU offices, and Heads of other concerned non-government agencies. It was during the exit conferences that concerned offices were given the opportunity to explain discrepancies.

Table 1. Summary of Projects Validated

Projects	Target	Validated
DA Infrastructure		
Farm-to-Market Roads	3,028	1,588
Irrigation	1,568	769
Postharvest Facilities*	535	662
TOTAL	5,131	3,019

*Postharvest facilities (PHF) includes flat bed dryers, Tindahan natin Outlet, fishport, cold chains, warehouses and greenhouses

Table 2. Summary of Projects Validated

DA Infrastructure				
	Total	Completed	On-going	Other Status
FMR	1,588	298	1,142	16
Irrigation	769	165	427	35
PHF	662	88	441	26
TOTAL	3,019	551	2010	77

* Other status includes for advertisement, for mobilization, revision of POW, for rehabilitation and hard to reach area.

Legend*- actual validation of projects found that projects from even before 2008 were still being completed.

Source: Simon's Powerpoint presentation

1. This report was based on the Powerpoint presentation of Mr. Jesus Simon, current National President of the Regional Agriculture and Fisheries Council during the NAFC Cereals Committee Meeting in November 2010. The author was also able to interview him on January 5, 2010 at the NAFC office. Mr. Simon is also a member of the Provincial Agrarian Reform Committee (PARCOM) in Pampanga and the 2010 awardee of the Best Kapampangan Award for agriculture category.

General Findings

From the list of 5,131 DA infrastructure projects in 2008-2009, more than half or 3019 projects were validated. Around 551 of these or only 18% of the projects were completed by year 2010 and about 66% were still up for completion.

Mr. Jesus Simon, National President of RAFC, said some of the installed flat bed dryers, among the post harvest facilities in the project, are non-operational. Some converted the rice hull furnace to firewood due to unavailability of rice hull.

Simon also took note of some of the reported projects that were not really operational but were installed by the local government beneficiaries only during the validation.

The reasons that were identified for the delay in construction of farm to market roads during the exit interviews, were related to bad weather condition. The validation also bared irregularities, such as a farm to market road built inside a subdivision area.

Other problems cited were about the failure to secure the right of way while there were some that were completely unexplainable—to which Mr. Simon referred to only as probably lost in the pockets of someone. Some projects were declared as non-implemented upon actual checking at the site, only to find out during the exit conference that they were transferred to another site.

Meanwhile, irrigation has its share of problems also as the study found that completed projects lack the necessary maintenance. The government's canal desilting program under its irrigation repair and rehabilitation program failed because the same silt clogs up the same canals when the rain comes. Yet, the government has put so much money on this program. The contractors are clearly the only ones making a profit out of it.

During the interview, Simon shared other anomalous practices on irrigation maintenance based on their many years of participation in the monitoring of irrigation projects of the Department of Agrarian Reform (DAR) under the Comprehensive Agrarian Reform Program (CARP). Being a member of the Provincial Agrarian Reform Committee, they found some contractors committed fraud by collecting fees from government for irrigation rehabilitation services. They simply provided a photo of the work they did, when in fact, the photo was taken somewhere else or from another time.

Simon suggested that the DA allow civil society participation in monitoring their projects as this greatly helped in the experience of RAFC in DAR. He said project monitoring has been in effect in DAR for a long time.

Conclusion

It may also be possible that the projected impact of the infrastructure projects is not yet realized as most of these are still up for completion. However, the reason of the delay, two to three years after, should be ascertained. Measures of accountability for the anomalous projects and practices have to be clearly in place.

Another important issue is to run after those who used public money to serve their own interests.

How do we avoid this from happening again and how can we ensure that this validation process is made apart of the regular work of DA? This validation, according to Mr. Simon, highlights the importance of private sector and civil society monitoring of DA's program implementation at the ground level. The fact that some projects, for example, were hurriedly finished to coincide with the validation period was proof that the watchful eyes of the public can move institutions to action.

Up to now, we have yet to hear concrete actions from the DA on solving corruption. Clearly, until such time that they recognize such leakages as among their serious problems and accept the institutionalization of civil society monitoring even up to the level of policy and program formulation, can we honestly say that PNoy's government is hell-bent on fighting corruption and serious in pursuing rural development.

Phenolics in Organice Rice May Prevent the Progression of Diabetic Complications by Aldose Reduction Inhibition

Mahalia Adelina Corazon P. Serrano
and Maxima E. Flavier
Institute of Chemistry, University of the Philippines Los Baños

INTRODUCTION

Organic rice farming involves the use of resilient indigenous varieties that are not dependent on harmful chemical fertilizers and pesticides. As such, organic rice farming is able to foster cycling of resources, promote ecological balance, and conserve biodiversity. However, rice produced by chemical farming is still more popular and more preferred by most Filipino consumers, mainly because organic rice is very expensive. Increased public awareness on the nutritional and health benefits of organic rice may pave the way for its improved marketability and patronage, and consequently, for its low price.

Organic rice, especially the ones whose bran is retained, are nutritionally superior to conventional rice as they contain higher fiber, protein, vitamin and mineral contents. Another health benefit derived from consuming organic rice is that it contains certain phytochemicals in the bran that can prevent the progression of diabetic complications such as cataract formation, kidney damage, and nerve damage.

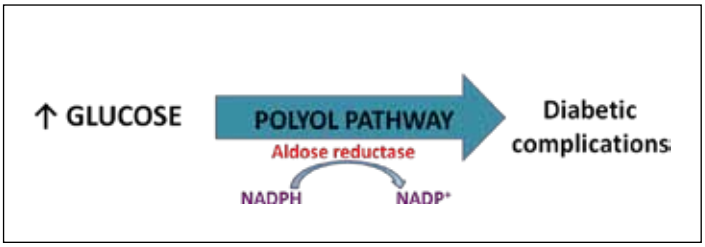
Diabetes mellitus, or simply diabetes, is a metabolic disorder wherein the body cannot metabolize sugar properly due to insufficient insulin production or ineffective utilization of the hormone. Insulin is the hormone responsible for the absorption of glucose (sugar) from the blood into the cells. However, when insufficient insulin is produced by the pancreas, sugar level in the blood rises, causing various complications in organs such as the eyes, kidneys, nerves, and cardiovascular organs. Diabetic complications include cataract formation in the eyes, retinal damage, kidney failure, stroke, and nerve damage.

Diabetes can either be inherited or caused by environmental factors such as the diet. Because we Filipinos like sweet and fatty foods, we become more prone to developing diabetes. Add to that the fact that our staple food is rice, which is starchy in nature. Starch is easily converted into sugars upon digestion, and therefore adds to our increased risk towards developing diabetes. According to the Department of Health, diabetes is the ninth leading cause of death among Filipinos, and about four million Filipinos are currently afflicted with this disease. Since we cannot change our staple food which is deeply rooted in our culture, we can however, modify it into a healthier option by consuming rice that is higher in fiber, protein, vitamins and minerals. This reduces our starch consumption, while increasing the fiber and protein content of our meals.

Moreover, recent studies have shown that biologically active phytochemicals are present in the bran. These phytochemicals are mostly phenolic compounds, present as a mixture of anthocyanins (purple pigments) and phenolic acids. This study focuses on the ability of the phenolic compounds extracted from organic rice to inhibit aldose reductase (AR).

Aldose reductase is the key enzyme involved in the progression of diabetic complications. When sugar levels in the blood are elevated (as in the case of diabetes), the excess sugar enters an alternative biochemical pathway, called the polyol pathway, which results in the overproduction of harmful biochemical byproducts such as sorbitol, and also the depletion of necessary coenzymes such as NADPH. This triggers various metabolic imbalances leading to early tissue damage in target organs such as the eyes, kidneys and nerves [4].

FIGURE 1.
The role of aldose reductase in the progression of diabetic complications.



Because aldose reductase is the key enzyme to this pathway, many studies have been conducted on how to inhibit this enzyme so that the progression of diabetic complications may also be hindered. In the past years, numerous AR inhibitors of diverse chemical structures have been studied and tested. Sorbinil, ponalrestat, and tolrestat were among the most studied synthetic AR-inhibitor drugs [4]. However, novel and effective AR inhibitors can actually be obtained from natural sources that are part of everyday diet [5]. Pigmented rices, in particular, are the subject of many studies regarding their anthocyanin contents which can potentially inhibit AR [3, 6].

FIGURE 2.
Organic rice samples from Bios Dynamis Health Foods Center in Kidapawan, Cotabato, Philippines.

RV-8 M-9 BLACK RICE

RESEARCH

Organic rice samples were obtained from Bios Dynamis Health Foods Center in Kidapawan, Cotabato, Philippines. Three indigenous varieties – M-9 (red rice), RV-8 (off-white color), and black rice – were analyzed for their nutritional quality and aldose reductase inhibitory activity. Half of the sample was milled (bran was removed), while the other half was left intact. This was done to compare the effect of the bran on the nutritional quality.

Nutritional Quality

Milled rice contained significantly lower values of fiber, fat and minerals than the unmilled rice. This may be attributed to the presence of the bran layer in the unmilled rice samples. The bran portion contains the highest energy, protein, fat, fiber, and mineral content compared to the other edible fractions of the rice grain [7]. The protein content of unmilled rice, although slightly higher in value, was not significantly different with that of the milled rice. Total carbohydrates indicated in the label (152g per 190g serving, or 80% by weight) were in agreement with the experimental values.

Aldose Reductase Inhibition (ARI) Assay

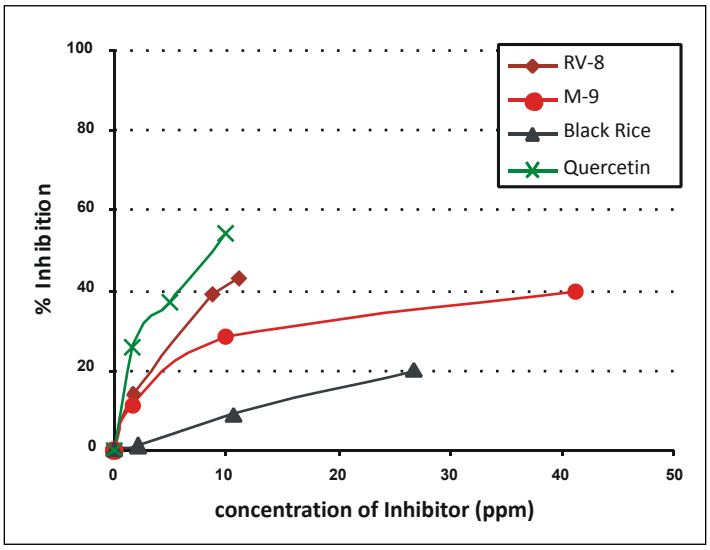
ARI assay was patterned from the procedure by Yawadio and coworkers (2007), using the rice extracts as test inhibitors, and quercetin as the standard inhibitor (positive control treatment). The three rice extracts showed inhibitory effects on the enzyme.

RV-8 showed the greatest inhibitory effect with 43.1% inhibition at 11 ppm concentration. This was followed by M-9 with 40.2% inhibition at 41 ppm. Black rice showed the lowest inhibitory effect with 20.2% inhibition at 27 ppm. These results indicate the potential of these phenolic compounds of rice in preventing diabetic complications. However, their efficacy in inhibiting aldose reductase is dependent on their concentration. They must be taken in sufficient amounts in order to inhibit the enzyme at a greater percentage.

TABLE 1.
Comparison of the nutrient composition of milled and unmilled rice samples (as received basis).

ANALYSIS	AMOUNT (in g) PER 100g OF SAMPLE (as received basis, ARB) ± standard deviation					
	UNMILLED			MILLED		
	RV-8 (off-white)	M-9 (red rice)	BR (black rice)	RV-8 (off-white)	M-9 (red rice)	BR (black rice)
MOISTURE	8.85 ± 0.16	8.74 ± 0.01	8.57 ± 0.13	9.36 ± 0.18	8.83 ± 0.27	8.15 ± 0.00
FAT	2.31 ± 0.08	2.36 ± 0.18	2.48 ± 0.11	0.71 ± 0.05	1.72 ± 0.01	1.08 ± 0.03
FIBER	0.91 ± 0.18	0.63 ± 0.17	0.94 ± 0.09	0.31 ± 0.07	0.22 ± 0.04	0.35 ± 0.07
PROTEIN	8.00 ± 0.16	6.81 ± 0.30	7.42 ± 0.38	7.23 ± 0.18	6.38 ± 0.21	7.45 ± 0.11
MINERALS	1.37 ± 0.02	1.18 ± 0.01	1.14 ± 0.04	0.45 ± 0.01	0.41 ± 0.04	0.38 ± 0.06
CARBOHYDRATES	76.26 ± 0.60	79.40 ± 1.02	81.48 ± 0.82	NA	NA	NA
TOTAL SUGARS	3.19 ± 0.04	2.17 ± 0.18	1.78 ± 0.03	NA	NA	NA
STARCH	65.76 ± 0.64	69.51 ± 1.20	71.73 ± 0.85	NA	NA	NA

FIGURE 3.
Percent inhibition of RV-8, M-9, and black rice extracts and quercetin (standard inhibitor).

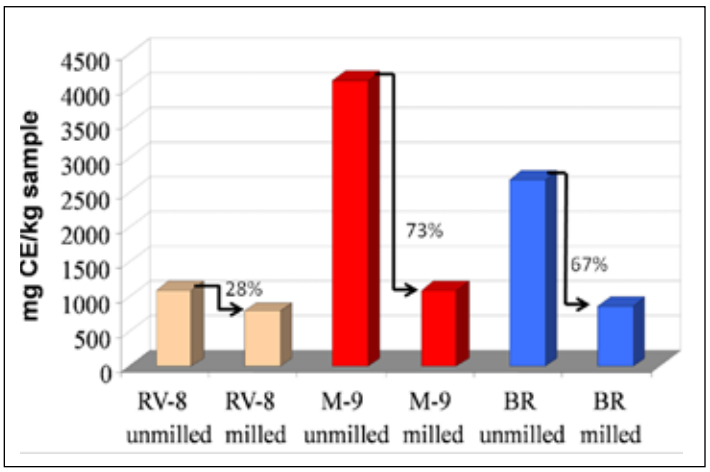


Total Phenolic Content

Acidified methanol (1%HCl/methanol solution) was used to extract the phenolic compounds in rice. The total phenolic content of each extract, expressed as milligram Catechin Equivalent per kg of sample (mg CE/kg), was estimated spectrophotometrically by the Folin-Ciocalteau method. This value measures the quantity of phenolic phytochemicals present in the rice samples.

Total phenolic content was highest for the red rice (M-9), followed by the black rice, and then brown rice (RV-8). Although RV-8 has the lowest total phenolic estimate, it was also found to have the highest inhibitory activity against aldose reductase. This suggests that the class of phenolic compounds present in RV-8 which arte most probably, phenolic acids such as ferulic acid and sinapic acid, are more potent than the anthocyanins present in red rice and black rice in terms of inhibiting aldose reductase.

FIGURE 4. Percentage decrease in the total phenolic content of the three rice varieties upon bran removal.



Since the phytochemicals are contained in the bran, milling or removal of the bran consequently resulted in lower total phenolic content. Removal of the bran through milling or polishing resulted in 28% decrease in the total phenolic content of RV-8, 73% decrease in M-9, and 67% in black rice.

Since these phenolic compounds are responsible for the aldose reductase inhibitory activity, decrease in their concentration would entail decrease in the inhibitory effect. Therefore, the bran should not be removed to maximize the benefit from these phytochemicals.

CONCLUSIONS AND RECOMMENDATIONS

Organic rice was found to have better nutritional value when the bran was not removed. The amount of health-beneficial phenolics was also higher for the samples with bran. It has been a common practice for Filipinos to remove the bran by milling and polishing before consuming rice, when in fact, the nutrients and the phytochemicals are contained in the bran. It is recommended that organic rice be eaten in its unmilled form, instead of the conventional milled-white/polished form, in order to maximize the benefits of its nutritional value and phenolic content. Patronizing sustainable organic farming for growing rice will ensure a healthier, safer, more nutritious, and environment-friendly rice for consumers.

As of today, only a few are informed of the health benefits of the rice bran. Increased public awareness on the benefits of organic rice can increase its marketability. Moreover, if milling and polishing will not be done, the cost of production can be minimized, and hence a lower retail price for organic rice may be attained.

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ABOUT THE AUTHORS

Mahalia Adelina Corazon P. Serrano is a graduate of BS Agricultural Chemistry from the University of the Philippines Los Baños. Currently, she is serving the University as a Chemistry instructor at the Insitute of Chemistry, College of Arts and Sciences, UPLB. Being a founding member and previous president of the UPLB League of Agricultural Chemistry students, it is her advocacy to help empower the agricultural sector by disseminating useful knowledge in chemistry as it applies to agriculture. (*mahal_serrano@yahoo.com)

Dr. Maxima E. Flavier is a retired professor of the University of the Philippines Los Baños, from which she has obtained her PhD in Agricultural Chemistry in 1994. Being adept in analytical and environmental chemistry, she has conducted various researches and training/seminar/workshops, both local and international, involving chemical instrumentation, quality assurance, and environmental monitoring.

R1 Rice Self-Sufficiency Bulletin is a quarterly magazine of the Rice Watch and Action Network (R1). It monitors the rice self-sufficiency targets of the Dapartment of Agriculture. It also provides background articles and analysis on rice and other issues that R1 is working on.

Editors: Joyce E. Sierra &
Jessica Reyes-Cantos
Layout and Photos: Nonoy Regalado

Rice Watch and Action Network (R1)
R1 Secretariat c/o Action for Economic Reforms
Unit 1403 West Trade Center,
132 West Avenue, Quezon City
Philippines 1104
Telefax: (632) 426-5626
Website: www.r1phils.org