

We say NO to Hybrid Rice!

We say No to Corporate Control over Rice Seeds

POSITION STATEMENT

MASIPAG October 2004

Rice is life for the majority of small farmers in the Philippines. It is the very basis of our existence, the source of our livelihood and the backbone of the country's food self-sufficiency. Poverty, unemployment, hunger and food insecurity are social ills that need to be addressed with long-term and comprehensive solutions. Relying on modern technology alone does not guarantee sustained food production and farm productivity.

The introduction of hybrid rice technology in the Philippines via the Hybrid Rice Commercialization Program (HRCP) and the Hunger-Free Philippines Program (HFPP) of the national government, enforced through the Agriculture and Fisheries Modernization Act of 1997 (RA 8435) is a new undertaking that should be fundamentally questioned.

In March 2002, the President through Executive Order (EO) 76 declared the Hybrid Rice Commercialization Program (HRCP) as the flagship program of the One Million Jobs (OMJ), with the Philippine Rice Research Institute (PhilRice) as lead implementing agency. The president created this to answer the problems of the increasing unemployment in the Agriculture Sector. This is one component of the Agriculture and Fisheries Modernization Act of 1997 (RA 8435).

The objectives of the HRCP are to attain rice self-sufficiency and food security for the country, increase job opportunities, and reduce poverty in rural areas. The government is determined to plant more hybrid rice varieties within the next 6 years. This year, some 81,000 hectares have been planted to hybrid rice, less than the targeted area of 150,000 hectares. For 2005, the DA is targeting 400,000 hectares.¹

What is Hybrid Rice?

The Hybrid Rice technology was developed in China and first applied in 1976. The International Rice Research Institute (IRRI) started research on hybrid rice in 1979 and the Philippine Rice Research Institute (PhilRice) in 1989. PhilRice entered into hybrid rice R&D collaborations with Chinese institutions in 1993.

Hybrid Rice is produced by crossing two inbred varieties with superior qualities by cross-pollination. Hybrids are special because they express what is called *heterosis* or hybrid vigor. The idea is that if you cross two parents which are genetically distant from each other, the offspring will be *superior*, particularly in terms of yield. However, the so-called heterosis disappears after the first (F1) generation, so it is pointless to save seeds produced from a hybrid crop.

¹ Information from Philippine Daily Inquirer, August 14, 2004

² The Hybrid Has Two Faces. Barona, L.G. Office of the Alumni and Public Affairs, UPLB, August 28, 2002

The need to purchase new F1 seeds every season to get the heterosis (high yield) effect each time made it profitable for companies to enter the hybrid rice seed business.

Hybrid Rice is anti-poor

Under the HRCP, the government subsidizes half the cost of the hybrid rice seeds to entice more farmers to try the technology. This creates an artificial demand, market for the seeds, and increases in incomes of farmers who grow the seeds.

The hybrid rice programs being implemented by the Philippine Rice Research Institute (PhilRice) through the help of the Department of Agriculture (DA), particularly the Provincial Agriculture Officers (PAOs), Municipal Agriculture Officers (MAOs) and Agricultural Technicians (ATs), encourage farmers to plant hybrid rice through its technology package. This includes the subsidy for F1 Mestizo Hybrid seed which costs P1,200.00 or the Plant Now Pay Later (PNPL) Plan, free bactericide (P330.00/ha), free zinc sulfate (P365.00/ha), fertilizer assistance based on soil analysis (P500.00/ha), Quedancor financing (10,000/ha), Multi-Purpose Drying Pavement (MPDP, P70,000.00) and NFA preferred procurement⁴.

With the subsidies and fast-tracking of the program, farmers are made dependent on the technology. As the government withdraws these subsidies, the expensive nature of the entire package of hybrid rice technology is exposed, revealing its inappropriateness to Philippine agriculture.

Most poor farmers live in marginal conditions with little access to credit, capital and technology. They do not benefit from the subsidies afforded to irrigated rice lands that are targeted for hybrid rice production. Therefore, the government's focus on hybrid rice deliberately excludes marginal and poor farmers.

There are incidences of yield increases in other parts of Isabela but mostly they are modest, not dramatic and not far from the national average using inbred varieties. In the cropping years 2001-2003³ the average yield for hybrid rice registered 6.24 MT/ha against 4.22 MT/ha from inbred varieties giving a variance of 2.02 MT/ha. But then, the modest increment can be easily offset by the high cost of production which can go up to P50,000 per hectare. Apparently what is being promoted in the media as dramatic increases (9-12 MT/ha) are usually 'aggregate' figures derived and computed from a portion of a hectare tilled in an ideal condition and provided with optimum inputs – a situation that is not common for and among many poor farmers in the country. The equation is simple: those who happen to be in an ideal condition and can afford the high cost of using hybrid rice are the ones to benefit from it. The experience of farmers in Cauayan, Isabela, where about 30 hectares planted to hybrid rice failed to live up to its promise, should serve as a reminder to other farmers. By and large, farmers who seem to gain from the program are those tilling prime agricultural lands, with access to irrigation and own considerable resources to buy inputs and hope for a promised increased yield. This has also been observed in the provinces of Iloilo and Negros Occidental in the Visayas, as well as Zamboanga and Agusan in Mindanao.

⁴ GMA Rice Program, Region 2, 2004 Wet Season

³ Data obtained from the Office of the Provincial Agriculturist (OPA), Province of Isabela

Hybrid Rice: the other side of the coin

The hybrid rice technology has opened the rice seed industry for seed transnationals – previously limited to hybrid corn seed production. The entry of corporate seed growers illustrates the increasing corporate over agriculture, allowing the big transnational seed and agrochemical corporations to control the country's rice industry.

The tradition of farmers to save and exchange seeds, conserve and improve local varieties as a way of safeguarding their agricultural biodiversity is now threatened and held hostage by the creeping institutional and external input dependency sown into the fields and psyche of our small farmers through hybrid rice. Not only this. As has been pointed out in an earlier study⁵ the growing privatization of agriculture will not only assure corporate control over proprietary technology in [hybrid rice] but also that a few corporations are likely to gain from it. As the moment, this scenario was observed in the farming communities⁶.

The 'corporatization' of agriculture will substantially erode the very fabric of the country's farming landscape as more and more private agenda will be brought into the core of national agricultural research systems that in turn shape the government's policies, programs and priorities in agricultural development. This move will go against the struggle of farmers and local communities for self-determination, and weaken their role and control in building a more equitable, sustainable food and farming systems.

Hybrid Rice will not address food insecurity

The government's idea of food security being espoused in both programs is hollow and consumer-centered, not to mention fixed at the macro level. The driving force for the intended increase in production remains to be the market (what yields higher and perform better) and not the local food needs of communities. Over the past decades, government efforts to address food security issues in the Philippines have been confined to simply increasing production (i.e. the volume of produce) to keep pace with population growth, with the market at the center of the whole process. The thinking is that when both ends meet, there is food security. However this is a dangerous and simplistic assumption.

Too grand, too ambitious, too little time

The other objectives of the HRCP to (1) increase job opportunities and (2) reduce poverty in the rural areas through the use of hybrid rice technology⁷ seem too grandiose to be appropriately assessed in a given program period. Unemployment and poverty are complex social issues to be delegated to a rice research institute, much less, to be solved by a single rice technology. Unless the idea is to really reduce the issue of poverty and unemployment down to the size of a grain of rice! As it stands, the program only underscores the government's inadequacy and lack of foresight to single-handedly rely on science, employ agricultural scientists, and encourage participation of seed and agrochemical corporations in solving social inequities such as poverty, unemployment and most recently, hunger.

⁵ 2000 March. Hybrid Rice in Asia: An Unfolding Threat, Kuyek Devlin, MASIPAG

⁶ In some municipalities in Isabela, like San Mariano and Tumauini, farmers are favoring Bayer's *Bigante* and SL Agritech Corporation's *Doña Maria SL8H* over Philrice's *Mestizo* and *Maguilas* varieties, and do not mind following the recommended instructions and inputs for growing hybrid rice. A farmer even said that for him, the convenience of buying seeds every cropping season – as opposed to saving seeds from his harvest – is ok because he can assure that they are tested and anyway he can afford it.

⁷ Hybrid Rice Commercialization Program. Philippine Rice Research Institute (PhilRice)

With the foregoing, we call on our fellow farmers, farmer organizations, NGOs, church people, the academe, well-intentioned scientists and researchers, members of the media and government people to support and join us in exposing what we believe are threats for engendering genuine food security:

1. *From a scientific standpoint, the hybrid rice technology promoted through HRCP and HFPP is an expensive, impractical and unnecessary technology⁸ in the light of the growing sustainable agriculture movement in the Philippines. The same movement recognizes, practices, develops and promotes more appropriate farming technologies drawn from an immense body of local knowledge. There is simply no substitute for rice farming technologies that are nurtured and developed for countless generations, adapted to diverse local agro-ecological conditions, and managed by farmers themselves to address production issues that have local contexts in the first place. The silver bullet approach to solving social issues through a single technology has long been assailed as 'unscientific' by the science community, and has in fact a long history of debacles since the Masagana 99 / Green Revolution era. The need to rethink the assumptions about hybrid rice technology should be a necessity not a prerogative.*
2. *AFMA / RA 8435 needs a thorough review if it has to be relevant in the country's agriculture especially to the farming communities. Review points should focus on:*
 - (a) Concept of food security – the State shall not only assure the availability, adequacy and accessibility of food to all at all times (Sec 2b) but most importantly it should create mechanisms and provide for legal instruments that will categorically create an enabling environment for all to access available food at all times. The same enabling environment should be made for small farmers to take an immense role in ensuring food security foremost at the local and second national level without compromising their efforts for sovereign control of genetic resources.
 - (b) Concept of sustainable development – if the State shall promote development that is compatible with the preservation of the ecosystem in areas where agriculture activities are carried out (Sec 2e), by all means it should stop implementing not just the program on hybrid rice but the entire prospect of introducing new types of rice (in the pipeline are: Vit A rice, BB Rice, Bt rice) as they simply defeat this objective. Preservation of ecosystem means preserving its integrity as a complete unit in itself, recognizing the potentials of its elements (knowledge and genetic resources) without relying on some external functions to keep it productive.
 - (c) Objective of modernizing the agriculture sector – transforming this sector from a resource-based to a technology-based industry (Sec 3a) is, to say the least, an alarming prospect. The rate and amount of involvement at which big private transnational corporations are having a direct hand in the country's agriculture by influencing public research agenda and practically controlling the whole of seed and agrochemical industry should already indicate for the government a suicide in pursuing this objective this way. An empire has been built around science by no other than research institutions and giant seed and agrochemical corporations. The investments for more proprietary technologies are huge, the stake for regaining profit high. There is no way that this hijacking of science will translate agricultural modernization into social progress.

⁸ For example, in China where hybrid rice originated, most studies of crop yield increases since the 1950s stressed the overwhelming role of fertilizer and irrigation, not the kind of seeds alone. In 1988, chinese researchers also reported that incidence of stemborer, white-back plant hopper, leaf roller, bacterial blight, shetah blight and virus diseases were more frequent on hybrid rice than on the inbred rice. Also, in the Philippines, the Office of the Provincial Agriculturist admits in a paper that Isabela's status as a premier rice producing province (attaining sufficiency level of 272 percent this year) is largely credited to the management of the Magat River Integrated Irrigation System (MRIIS) not to the province's use of hybrid rice seeds.

3. *The national government must to set its priorities straight.* Investing in new and expensive agricultural technologies than addressing the flaws of the prevailing agricultural system, is simply not the way to do it. It lacks sense and focus. Obsessing for increased production at crop level than improving the welfare of small resource-poor farmers that compose the bulk of the agriculture sector, is inappropriate and obscene at best. Unless the basic issues of the agriculture sector are confronted – e.g. farmers' lack of resources and control of the means of production, absence of infrastructure support and post-harvest facilities, inequitable rice procurement system – no amount of modernization will transform agriculture into a vibrant, highly-productive sector.

We say NO to corporate rice farming! NO to hybrid rice! It is a threat to rice farmers and food security in the Philippines!