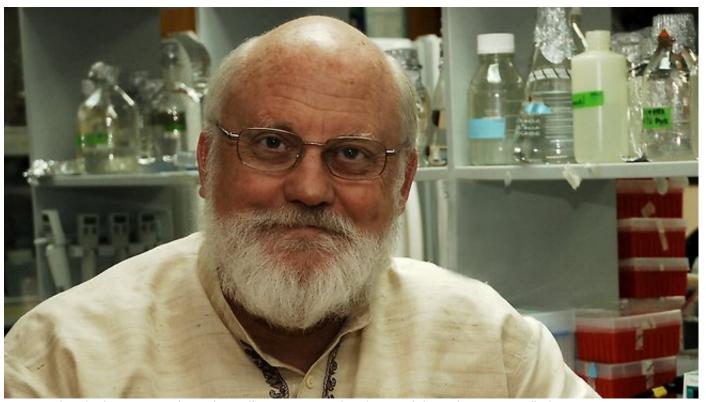
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Time to wake up on rice, secret weapon against Asian upheaval

- by: Peter Alford, Jakarta correspondent
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IInternational Rice Research Institute director-general Robert Zeigler. Picture: Supplied *Source*: Supplied

"RICE science" might have made the single greatest contribution to Asia's economic miracle over three decades but, at the current rate of crop improvement, supply will fall 50 per cent short of demand in the next 25 years.

As a direct threat to Australia's regional interests and national security, that's the best argument for investing more heavily in rice research now, says International Rice Research Institute director-general Robert Zeigler.

Rice is the daily sustenance for three billion people, mostly in Asia, and to meet anticipated demand in 2035 the world crop has to rise by an average eight million tonnes every year.

"If we continue at our current rate, we're going to find ourselves in perpetual food insecurity and for Asia that would be disastrous, politically and socially," Dr Zeigler told *The Australian*.

The American plant pathologist - and 35-year veteran of agricultural development in Asia, Africa and Latin America -

pitches unapologetically for more Australian rice research effort and funding.

He wants food security issues to strongly inform the white paper that Julia Gillard has commissioned into Australia's role in the Asian century.

"A food-insecure Asia is not the kind of neighbourhood Australia wants," Dr Zeigler said.

"I can't imagine what Asia would be like if we had not transformed rice production - it would not be a very pretty place, I think."

Australians do pull their weight in the IRRI, which played a critical role in Asia's "green revolution", last year contributing 5 per cent of the \$US56.8 million research budget and contributing \$15.4 billion to the institute's new Philippines plant research centre.

But Dr Zeigler argues it's in Australia's interests to do more, particularly by training Asia's next generation of plant scientists - so far IRRI's attempts to engage Australian agricultural colleges have foundered over the issue of who pays.

"There are humanitarian grounds for making these investments and there are also enlightened self-interest grounds," he said. "I personally see nothing wrong with enlightened self-interest; that's how you develop win-win programs."

Dr Zeigler is confident the scientific challenge of getting the 1.5 per cent-plus annual yield growth needed for Asian rice self-sufficiency will be met - and poor people's health significantly improved in the process. There's new transgenic "golden rice", with beta-carotene to overcome vitamin A deficiency, which blinds hundreds of thousands of children every year. And high-iron-content rice is particularly beneficial for pregnant women and infants.

There's a new variety that yields a crop even after a fortnight completely submerged, another that tolerates flooding and salty soil and another designed to survive both drought and flooding in a single season.

Those are solutions to problems already confronting the "poorest of the poor" rice farmers, said Dr Zeigler.

But they will be needed widely as climate change brings more extreme flooding, storm tides, and probably drought in the great rice-growing deltas of South and Southeast Asia.

Once-in-50-years flooding has seriously affected more than 10 per cent of paddy land in Thailand, the world's main rice exporter, and crops have been damaged in Vietnam, Cambodia and The Philippines.

The larger challenges are likely to be creating a transparent international trading system (only about 7 per cent of the world rice crop now crosses national borders), overcoming beggar-thy-neighbour national trade policies, and building safety nets against market failures.

"We can't wait until (scarcity) happens - then it's going to be too late," said Dr Zeigler.

"I think what we need to do now is wake up and behave like grown-ups, look our challenges squarely in the eye and take concrete, sustained measures to deal with them."