

## How healthy co-operation found a cure

By Alison Maitland

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Not every problem facing the developing world is intractable. One that could have a relatively straightforward solution is the damage caused to people and economies by the prevalence of iron deficiency.

This is what **Akzo Nobel** is banking on. The Dutch chemicals group is one of only a handful of manufacturers of a relatively new form of iron that can be added to everyday foods and drinks and be easily absorbed by the body.

Its decision to develop the compound, at a cost of several million dollars, was commercial rather than philanthropic. "The returns are sufficient that we have a business interest in pursuing it," says **Geoff Smith**, a business director with the company's functional chemicals division in Singapore and leader of the global project on **iron deficiency**.

There is more to it than the simple pursuit of profit, however. To achieve its goal of reaching developing country markets, **Akzo Nobel** *has worked with independent scientists and governments to create a food fortifier costing just 10 US cents per person per year.*

Iron supplements have not been "bioavailable" - easy for the body to absorb. The new compound, known as iron EDTA, is stable and safe but until now has been relatively expensive and available on a limited scale, says Nevin Scrimshaw, president of the International Nutrition Foundation.

"The contribution of **Akzo Nobel** has been to produce it in quantity at a more favourable price under the trade name of **Ferrazone**," he says.

Dr Scrimshaw says there is more the private sector could do. "What is most needed now are innovative efforts by industry to provide iron to infants and young children in an acceptable and affordable form."

A lack of vitamins and minerals in the diet takes an enormous toll. Affecting about a third of the world's population, micronutrient deficiency damages the immune system, impairs brain development and is estimated to cause the deaths of more than 1m children and 50,000 women in pregnancy and childbirth each year.

The potential of efforts to reduce this toll have been recognised by the Copenhagen Consensus, a group of international economists. They have declared the provision of micronutrients to be the second most cost-effective solution to development challenges after the control of HIV/Aids.

One country tackling the problem is Vietnam, where iron deficiency is the norm in women and children. It is embarking on a five-year national programme to fortify fish sauce, a widely eaten condiment, with the new compound.

The programme is being kick-started with a three-year \$3m grant from the Global Alliance for Improved Nutrition, a partnership including the Gates Foundation and the World Health Organisation. The alliance works with a number of multinational companies, says Anna Verster, WHO senior technical adviser on nutrition and food fortification. Their role is "very important in improving our understanding of what works in food fortification and what does not," she says.

In Vietnam, **Akzo Nobel** donated **Ferrazone** for two important trials of fortified fish sauce run by the National Institute of Nutrition. The first, which involved 152 female factory workers, provided the evidence that regular consumption significantly reduced iron-deficiency anaemia.

The company is now training Vietnamese scientists to verify that fish sauce, which is produced by local food manufacturers, is fortified with the right kind of iron. "Detecting iron in fish sauce is not so difficult, but it's hard to tell if the iron is from ground-up nails, which would not be bioavailable at all, or **Ferrazone**," says **Mr Smith**.

**Akzo Nobel** will be one of the bidders this year to supply the compound for the nationwide programme. Its product is on sale to food companies in 13 other countries, including Brazil and South Africa.

**Mr Smith** says multinationals such as his are often asked why they do not give away products that can assist world development. He says this would deprive companies of their incentive to invest in such products. "In terms of long-term sustainability . . . making a profit is a good thing."

What lesson would he pass on? Collaboration with independent scientists and bodies such as the International Life Sciences Institute, a non-profit research foundation, was invaluable.

*"Good science and good scientific partnerships are essential to developing credibility. It's not easy for a company to walk into a health ministry and start talking about these issues."*

