# Policy Brief Food security

3 April 2013

### Colophon

© 2013 Royal Tropical Institute (KIT) Mauritskade 63 1092 AD Amsterdam www.kit.nl Tel: +31 (0)20 568 8711

For questions or comments please contact: foodsecurity@kit.nl

### Authors:

Bart de Steenhuijsen Piters Ferko Bodnár

Readers are encouraged to quote or reproduce material from issues of this Policy Brief in their own publications. In return, KIT requests due acknowledgement and a copy of the publication. Quotes to be referenced as above.

### Monitoring private sector impacts on rural food and nutrition security

**B**ased on the belief that economic growth will contribute to improving food and nutrition security, governments are using public funds for private sector development. However, there is as yet little evidence that this contributes to greater food security at household level. Instead of assuming that private sector development will reduce malnutrition, public funders should require that impact pathways be part of any proposals requiring public funds, that interventions be systematically evaluated and that impact be measured at target group level. This policy brief looks at the rationale behind public investment in private sector development and provides a framework with pathways for measuring the impact of private sector interventions, and specifically for monitoring and evaluating these impacts.

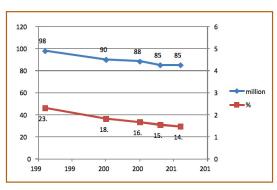
### **BACKGROUND**

M acro-economic figures indicate impressive economic growth across many countries in sub-Saharan Africa. However, this is not reflected in the number of malnourished people in the developing world, which stopped declining in 2007,

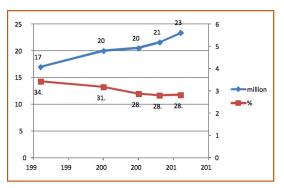
levelling out at 850 million or 15% of the population (*The State of food insecurity in the world*, FAO, 2012). The FAO report concludes that 'in order for economic growth to enhance nutrition of the neediest, the poor must participate in the

growth process and its benefits'. Growing inequalities within countries and rising food prices are creating a situation in which a persistently poor group is failing to benefit from national economic growth.

Malnourishment in the developing world



Malnourishment in Sub Saharan Africa



Source: FAO 2012, based on 3-year averages.

## Policy Brief 2

LESSONS LEARNT FROM EVALUATION OF IFC'S INTERVENTIONS:

### Lesson 1:

Both the rate of growth and the distributional pattern of growth are key elements of a sound private sector led strategy that creates opportunities for the poor.

### Lesson 2:

IFC's relevance and effectiveness in engaging the poor needs to move beyond a company-by-company orientation towards a focus on achieving broader development impact.

### Lesson 3:

Experimentation and innovation, combined with effective monitoring and evaluation, are key elements of a strategy to engage the poor for broader development impact.

### Lesson 4:

An enhanced understanding of the intended beneficiaries is essential to creating opportunities for them

### Lesson 5:

Acceleration of supportive activities that complement each other within IFC, the World Bank Group, and other partners can enhance effectiveness in delivering development impact.

Source: IEG, 2011

Nevertheless, there is a widespread belief that public investment in private sector development will generate high social returns in terms of reducing poverty and improving food and nutrition security. In The Netherlands, food and nutrition security and private sector development are cornerstones of development policy. In two policy letters of 2011 (Ministry of Foreign Affairs, 2011 and Ministry of Foreign Affairs and Ministry of Economic Affairs, Agriculture and Innovation, 2011), involving the private sector in development efforts is presented as a key strategy. Private sector instruments, which benefit from Dutch Overseas Development Assistance (ODA), are increasing both in number and importance, whereas the general ODA budget is declining. This trend is reconfirmed by Minister Ploumen in her recently released new policy note

(Ministry of Foreign Affairs, 2013). The Donor Committee for Enterprise Development (DCED, 2012) describes the rationale for including private sector development (PSD) in public strategies to reduce poverty: 'Providing the poor with the capacity to find jobs and improve their income, PSD lays the foundation for their exit from charity. In addition, a growing private sector will ultimately enable governments in developing countries to generate the tax revenues needed to emulate government provision in more wealthy countries - of health care, education etc.'

In its theory of change, DCED draws a direct causal link between economic growth and poverty reduction. So does the UK's Department for International Development (DFID), arguing in 2008 that 'economic growth accounts for more than 80% of poverty reduction, and has

brought 500 million people above the poverty line since 1980, while less than 20% was the result of changing inequality. In East Asia, where economic growth has averaged 9% a year over the last 15 years, 300 million people are no longer poor' (DFID, 2008).

The idea that economic growth has a significant poverty impact appears unchallenged by donors. Data from the World Bank over the period 2002-2006 show a positive relationship between the share of private investment as a proportion of total investment and the rate of GDP growth. In other words, the higher the level of private investment, the higher the growth rate. DFID goes further, suggesting that with higher levels of private investment, not only do growth rates increase, but poverty levels decrease (DFID, 2008).

### **SEARCHING FOR EVIDENCE**

I hat do we know about the causal relations between PSD interventions, poverty and food insecurity? And what has been the role of public investment in achieving PSD-related poverty and food and nutrition impacts? Despite the claims made above, there is little evidence to support the development impact of private sector initiatives. A report by SOMO, Both Ends and Action Aid (2012) presents the results of an assessment of the development impacts of numerous Dutch private sector instruments. The report states that sustainable poverty impacts by public investment in private sector development are not clear and that the monitoring mechanisms of the instruments are inadequate.

There is also little documented evidence of cost-benefit ratios of public expenditures on private sector interventions. In 2012, Triodos Facet BV evaluated a prominent Dutch private sector development instrument, PSOM/ PSI, and concluded that on average €6,130 in subsidies were spent per job created. Involving local farmers in private sector procurement required a subsidy of €300-400 per farmer. In both cases, there was no evidence that poor segments of society shared in the benefits.

Making the benefits of commercial operations more inclusive is known as 'additionality'. By extending positive effects to communities formerly excluded from benefit sharing, food and nutrition impact can be achieved.

Achieving additionality implies a profound understanding of context-specific mechanisms of inclusion that have food and nutrition effects on target communities.

Regular PSD instruments applied by the Dutch government do not sufficiently require evidence of additionality in private sector efforts. For example, the IFC Private Sector Window of the Global Agriculture and Food Security Project, which receives substantial Dutch funding, supports private sector development in low-income countries, but does not require vulnerable or food-insecure groups to benefit.

In 2011, the World Bank's Independent Evaluation Group evaluated the impact of the International Finance Corporation's (IFC) pro-poor growth interventions. One of the conclusions was that fewer than half of the projects reviewed included evidence of poverty and distributional aspects in project design. The Independent Evaluation Group advised IFC to

clarify the shared understanding of poverty and poverty impact within the IFC context and guide staff in operationalizing the poverty focus. In addition, it advised IFC to make explicit any underlying assumptions about how projects would contribute to growth and the pattern of growth in ways that would create opportunities for the poor. IFC was also advised to periodically

test its assumptions through in-depth evaluations, defined ex ante, and subsequently monitor and report on poverty reduction outcomes. From these examples, it is clear that there is little evidence to support public investment in PSD as a means to reduce poverty and malnutrition, often because of lacunae in project design, such as monitoring and evaluation.

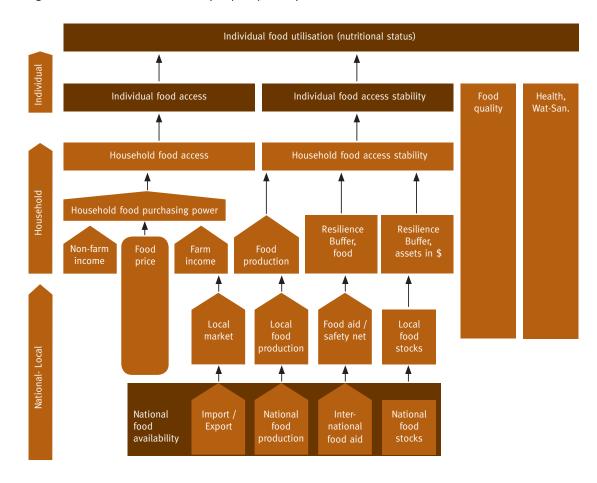
### PATHWAYS TO FOOD AND NUTRITION SECURITY IMPACT

Approximately 200 definitions and 450 indicators of food and nutrition security (IFPRI, 1999) can be found in the literature. This policy brief uses the following definition: 'all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs

and food preferences for an active and healthy live' (World Food Summit, Rome, 1996). Based on this definition, with its four aspects food utilization, food access, food access stability and food availability, we have developed a coherent hierarchy of these aspects that helps in understanding the pathways

to food and nutrition security impact (see *figure 1*). Using this figure can help in identifying plausible private sector interventions that impact directly or indirectly on food and nutrition security.

Figure 1: Food and nutrition security impact pathways



## Policy Brief 3

Broadly speaking, there are three domains of intervention in which private companies can be expected to have an impact on food and nutrition security in rural areas: agriservice delivery, procurement of agricultural commodities and food quality standards. Most of the evidence of impact on food production is related to private sector input supply that increases crop and livestock productivity.

The main conclusion derived from the literature suggests that

these positive impacts are obtained by local, private service providers who benefit from more conducive government policy. In Bangladesh, for example, the combination of research and extension of new rice varieties with irrigation, facilitated by liberalization of the import of cheap Chinese irrigation pumps, increased food production dramatically (IOB, 2012).

Large-scale impacts on food production, the IOB study (2012) concluded, are often

preceded by public sector investments in research on crop varieties and disease control measures. The private sector can play a role as partner in such interventions. In addition to improving productivity, private sector interventions can influence commodity trade and rural employment, both improving household purchasing power. Finally, private sector interventions can influence access to quality food by improving food quality standards.

### MONITORING AND EVALUATING FOOD AND NUTRITION SECURITY IMPACT

good monitoring and evaluation system is crucial for steering public and private investments towards maximum food security impact. An evaluation should be able to attribute observed changes to the project, and requires a 'counterfactual analysis', a comparison of project results with what would have happened in the absence of the project. In setting up a monitoring and evaluation system, relevant indicators should be chosen up to the level of impact. The IOB study found that many evaluations were handicapped by poorly-chosen indicators that gave only partial information or were too remote from impact to be able to conclude anything about food security impact.

Below, we provide some examples of good and bad indicators at proxy-impact level (income) and at impact level (food consumption).

In Uganda, coffee farmers were assisted in the production, organization and marketing of their product as certified organic coffee, for which they received

a premium price. The project evaluation was interested in income but initially only considered the additional income from coffee, which had increased by 75%, ignoring competition between coffee and other crops, or additional production costs. A later, more thorough evaluation made a more complete assessment of net farmer income, which had increased by 12% - still worthwhile, considering the large number of farmers and the modest project costs. However, in order to draw conclusions about the impact on food security, it would be valuable to compare income with food prices. It would also be interesting to know to what extent these coffee farmers include food-insecure households: do coffee farmers tend to be poor or relatively well-off households? (Bolwig, 2009)

An evaluation of the previouslymentioned interventions to assist rice farmers in Bangladesh looked at the increased production and income of rice farmers, but also at food prices relative to minimum wages of other people. The increased rice production and increased demand for wage labour increased the food purchasing power of wage labourers from 2.7 kg rice / day in 1987 to 5.0 kg rice / day in 2000. Compared to the Uganda evaluation, the Bangladesh evaluation tells us more about the impact on food security (Hossain, 2003, 2009).

Some project evaluations assess diet diversity as a proxy for food security, by asking project participants how many food groups they have eaten in the last 24 hours. Although it is interesting as a relative measure to see progress in diet diversity, it is difficult to interpret diet diversity in an absolute sense. If a household improves its diet diversity from 4 to 6 (out of 12) food groups, we don't know whether this household has moved from food insecurity to food security. In evaluating food security, diet diversity is only interesting in combination with other food security indicators.

In Mozambique, farmers were assisted in production, organization and marketing for local and international markets. The evaluation is a good example of using indicators along the pathway from intervention to food security impact. Partial income from cash crops increased by 63%, but total household income remained stable, while the household income of non-participants declined. The period of food shortage declined from 4 to 2 months per year.

Self-reported undernourishment was lower among participants (18%) than among nonparticipants (27%), but objectively-measured child malnutrition was not significantly different. Such evaluation results, showing changes at different levels in the impact pathway, set the stage for a good discussion about direct project effects versus other factors affecting food security (Langworthy et al., 2001).

The IOB study (2012) found that many evaluations did not do a valid counterfactual analysis.

Numerous evaluations compare the situation at the start of the project with the situation at the end of the project, without comparing to a non-project area. This would be a valid comparison if we could assume that without the project no change occurs. But this is an invalid assumwption; agricultural production, trade and commodity prices are affected by many more factors than the project alone, as confirmed by evaluations that monitored areas without project interventions. Some projects attempted to make a comparison by interviewing, within the targeted villages, those who participated and those who did not. Unfortunately, households are subject to self-selection: those who did not participate were perhaps less motivated or less able to participate, due to age or access to land, for example. The best evaluations are those that include an area similar to the project area, both at baseline and impact study, and that correct for differences between households in these two groups using matching techniques.

At the scientific symposium 'Measuring food security' held in Rome in January 2012, it was agreed that the aspect 'individual food utilization' is best assessed by the percentage of child malnutrition.

This indicator is measured by comparing age, length and weight for children under 2 or 5 years old. To determine whether a company is making progress in improving food and nutrition security, measuring child malnutrition is critical. It is not enough to deliver outputs at intermediate levels of the result chain and assume that these will positively impact the target group. In most cases, real impact on the food and nutrition security of poor people requires joint action by public, private and civil actors. In fact, the closer one gets to the inclusion of poor people, the more resources have to be mobilized for public and civil interventions. At the same time, using public resources for private sector development is only advisable if additional measures are undertaken to make the benefits from commercial operations more inclusive.

### THE WAY FORWARD

- n order to gather more evidence on the impact of public investment in private sector development on food and nutrition security, we make the following recommendations:
- 1. Donors should sharpen their understanding of food and nutrition insecurity, and sharpen the scope of effective PSD interventions that can improve the situation of selected target groups.
- 2. Underlying assumptions about how interventions will impact food and nutrition security should be made explicit and assessed periodically.
- 3. Clear impact pathways that are relevant in their context of application must be part of proposals seeking public funding for food and nutrition security interventions.
- 4. Interventions intended to improve food and nutrition security should be evaluated in a similar manner, whether they involve public, private, civil actors, or any combination of these three.
- 5. Impact should be measured at the level of the target group using a common, limited set of indicators, such as the percentage of child malnutrition.

### References

- Bolwig, S., Gibbon, P., & Jones, S. (2009). The economics of smallholder organic contract farming in tropical Africa. World Development, 37(6), 1094–1104. http://www.fao.org/uploads/media/The%20economics%20 of%20smallholder%20organic%20contract%20farming%20 in%20tropical%20africa.pdf
- BoP Innovation Center, & GAIN (Global Alliance for Improved Nutrition) (2012). Access to food and improved nutrition at the base of the pyramid in cooperation with five business interventions to achieve social impact, financial sustainability and scale. Utrecht, Netherlands: Base of the Pyramid. http://api.ning.com/files/cvk\*Rakqho1kXlqXN-osJM HoQlD9YgAnH28wyBCC\*iF7MDaBCJmJ8mhf7uUiWZ6a6uPAZa S\*F6PPV]YdijsbsTb6obiSZ222I/AccesstoNutritionattheBoP.pdf
- Chung, K., Haddad, L., Ramakrishna, J., & Riely, F. (1997). Identifying the food insecure: the application of mixedmethod approaches in India. Washington, D.C., USA: IFPRI. http://www.ifpri.org/sites/default/files/publications/oc35. pdf
- DCED (Donor Committee for Enterprise Development)
  (n.d.). The rationale for PSD. Donor Committee for Enterprise Development.

http://www.enterprise-development.org/page/whypsd

- DFID. (2008). Private sector development strategy: prosperity for all: making markets work. London, UK: DFID (Department for International Development). http://www.dfid.gov.uk/Documents/publications/Private-Sector-development-strategy.pdf
- FAO, WFP, & IFAD. (2012). The state of food insecurity in the world 2012: economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition.

  Rome, Italy: FAO. http://www.fao.org/docrep/o16/i3o27e/i3o27e.pdf

- Hossain, M., Lewis, D., Bose, M. L., & Chowdhury, A. (2003). Rice research, technological progress, and impacts on the poor: the Bangladesh case (summary report). Washington, D.C., USA: IFPRI. http://www.bracresearch.org/publications/page%2057-102\_new.pdf
- Hossain, M., Spielman, D. J., & Pandya-Lorch, R. (2010). Shallow tubewells, Boro rice, and their impact on food security in Bangladesh. In Proven successes in agricultural development: a technical compendium to millions fed (pp. 243–269). http://www.ifpri.org/sites/default/files/publications/oc65.pdf#page=258
- IEG (Independent Evaluation Group) (2011). Assessing IFC's poverty focus and results.
  Washington, D.C.: World Bank. http://ieg.worldbankgroup.org/content/dam/ieg/IFC/ifc\_poverty\_full\_eval.pdf
- IOB (2011). Improving food security: a systematic review of the impact of interventions in agricultural production, value chains, market regulation and land security (No. 363). The Hague, Netherlands: Policy & Operations Evaluation Department (IOB). http://www.rijksoverheid.nl/bestanden/documenten-en-publicaties/rapporten/2011/12/01/iob-improving-food-security-a-systematic-review-of-the-impact-of-interventions-in-agricultural-production-value-chainsmarket-regulation-and-land-security/iob-food.pdf
- Langworthy, M., Messiter, B., Diogo, D. (2001). Final project evaluation: viable initiatives in the development of agriculture - phase 1. CARE, Maputo, Mozambique.
- Ministry of Foreign Affairs (2011). Kamerbrief ontwikkeling door duurzaam ondernemen [Development by sustainable entrepreneurship]. Rijksoverheid, Netherlands. http://www.rijksoverheid.nl/bestanden/documentenen-publicaties/kamerstukken/2011/11/04/kamerbriefontwikkeling-door-duurzaam-ondernemen/kamerbriefontwikkeling-door-duurzaam-ondernemen.pdf

- Ministry of Foreign Affairs, & Ministry of Economic Affairs (2011). Kamerbrief uitwerking voedselzekerheidsbeleid [Elaboration food security policy]. Rijksoverheid, Netherlands. www.rijksoverheid.nl/bestanden/documenten-en-publicaties kamerstukken/2011/10/24/kamerbrief-uitwerking-voedselzekerheidsbeleid/kamerbrief-uitwerking-voedselzekerheidsbeleid.pdf
- Ministry of Foreign Affairs, & Ministry of Economic Affairs (2013). Wat de wereld verdient: een nieuwe agenda voor hulp, handel en investeringen [What the world deserves/ earns: a new agenda for aid, trade, and investment]. Rijksoverheid, Netherlands.

http://www.rijksoverheid.nl/bestanden/documenten-enpublicaties/notas/2013/04/05/wat-de-wereld-verdienteen-nieuwe-agenda-voor-hulp-handel-en-investeringen/ wat-de-wereld-verdient-een-nieuwe-agenda-voor-hulphandel-en-investeringen.pdf

- SOMO, Both Ends, & Action Aid (2012). Bijdrage private sector aan ontwikkeling niet gegarandeerd. Netherlands: SOMO, Both Ends, Action Aid. http://somo.nl/publications-nl/Publication\_3874-nl/at\_download/fullfile
- Triodos Facet BV (2010). Evaluation PSOM/PSI 1999-2009 and MMF. Netherlands: Netherlands Ministry of Foreign Affairs, Department of Sustainable Economic Development (DDE). http://www.government.nl/files/documents-and-publications/reports/2010/07/14/evaluation-psom-psi-1999-2009-and-mmf/evaluation-psom-programma-samenwerking-opkomende-markten-psi-private-sector-investment-programme-and-mmf-matchmaking-facility.pdf
- Tyler, G., & Dixie, G. (2012). Investments in agribusiness: a retrospective view of a development bank's investments in agribusiness in Africa and East Asia. Washington, D.C.: World Bank. http://siteresources.worldbank.org/EXTARD/Resources/336681-1249490230222/CDC50Years.pdf

