Exclusion

The great majority of the undernourished live from agriculture. Their standard of living is low. One of the causes why this is the case is that these persons have been largely excluded from the social, economic and political life of their country, and this is a major issue in the fight against hunger that is only rarely acknowledged. Often, when speaking of exclusion, people think about the exclusion of certain social groups such as women, widows, women-headed households, ethnic or sexual minority groups, the elderly or people sick with HIV/AIDS. In fact, exclusion is the lot of much larger population groups than these. Many people do not have equitable access to the services that could, that should be provided to them by society to help them graduate from hunger and poverty. These services should help them to have access and use factors that could improve their conditions: knowledge and information, land, water, forest and genetic resources; capital, markets, economic and social security; health services and employment opportunities whether in the agricultural sector or not. These people should also be in a position to play fully their role in the political sphere and this particularly when it comes to the design and implementation of food and agricultural policies.

In most of the countries where there is hunger, many of these services are embryonic and only available to a privileged minority, often living in cities. As decades have passed, these services have even been reduced as they were the designated victims of budget cuts made during the period of structural adjustment in the 80s and 90s. In some countries, war and political instability have driven the state to a situation of collapse where social and agricultural services were particularly hard hit: the army in most cases and the police sometimes have been and remain the priority recipients of resources that political leaders succeed in mobilising.

Finally, when services exist, they are mostly available only in the most favoured areas (near cities, in well connected areas, in regions with high economic potential), the rest of the country being left to itself.

Often, civil society, whether national or international, tries to address these government failures, but even in that case, many people remain excluded from the assistance provided. Innovative approaches are being tested, sometimes dependent on efforts of the people themselves or the use of new technologies (e.g. the use of cell phones). However, these are mostly local or limited initiatives which unfortunately only usually have a rather limited impact on the living conditions of the majority of population groups who are poor and undernourished.

It is impossible here to give an exhaustive picture of the exclusion experienced by hungry people, as data are lacking. We will therefore limit this section to the provision of some illustrations of the tough reality that confronts them and suggest the long road that needs to be walked before hunger can be really eradicated.
Agricultural extension

Agricultural extension consists of advisory services given with the view to increase agricultural productivity, to adapt to changes occurring on agricultural markets (for example the establishment of super and hyper markets, the implementation of new quality and safety norms, etc.), to improve the processing of agricultural products, manage sustainably natural resources as well as adapt to and mitigate climate change. Recently, agricultural extension has also given more attention to the development of human capital (training) as well as social capital (organisation) and is not limited any more to the transfer of technology proper.

Typically, there are between 1000 and 2500 agricultural producers for one extension agent. Knowing that these producers may be spread over a relatively vast area and that the agent often only has very limited means and budget for moving around, it is not surprising that most farmers have never seen an extension agent in their life. For example, a 2007 study in India showed that only 5.7% of surveyed households obtained their information on agricultural technologies from extension agents. The information they had was coming more frequently from other producers (16.7%), from the radio and from agricultural inputs sellers (13%). It can be expected that the advice obtained from the latter will not be objective and will be more serving the purpose of the seller - who is there to sell his/her products - rather than those of the producers who first of all would like to improve the level and security of their production.

These figures are confirmed by a World Bank study in Ethiopia, India and Ghana, that shows that more than 70% of men and more than 80% of women are excluded from extension services. These proportions can rise to more than 90% of men and 95% of women in Ghana even though this country is often given as example of a country which is “on the right track” and is often presented by donors as their showcase.

Another study shows that in 2003 in Mozambique, 86.5% of rural households said they had no access to agricultural extension and that two thirds of the focus groups created

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1 Swanson, Farner and Bahal, The current status of agricultural extension worldwide, FAO, 1989
2 Birner and Anderson, How to make agricultural extension demand-driven? The case of India’s agricultural extension policy, IFPRI 2007
3 Madhvanii and Pehu, Gender and Governance in Agricultural Extension Services: Insights from India, Ghana and Ethiopia, ARD, World Bank, March 2010
4 Nederlof, Wenning and Heemskerk, Access to agricultural services, Royal Tropical Institute, 2008
with a view to improving living conditions of the rural population did not have with them any information on agricultural extension. Even in Uganda, where NAADS is a decentralised extension system often given as example for having increased the proportion of producers benefitting from extension activities, almost 30% of farmers were left to themselves.  

To improve access to technical information, some believe in the need to create a market for the provision of extension services, as the state and NGOs have shown the limits of their ability to take up this role. Supporters of this approach are however not worried about the issue of including the largest possible number of beneficiaries. Unfortunately, it may be expected that privatisation of extension would further exclude the poorest, all the more as some doubt the profitability of extension for this category on the ground that these population groups are not able to generate the surplus required to fund sustainably (private) extension services and that they would be better off moving to other activities than agriculture for their livelihood.

The receptiveness of the poorest producers to technological change is indeed lower than for other categories. This is so for three main reasons:

- These producers are less educated and they lack confidence to seek additional information
- They have less land, often of a lesser quality and that is located in less accessible areas
- They are more reluctant to take risks that are inherent to innovation than other producers because of the very limited resources they have.

To address these constraints, a number of new approaches have been tried out, with success in some cases. They have often consisted, as in India, China and Indonesia, in decentralising extension services to the local level and assigning to them the objective, besides improving agricultural technologies, of improving living conditions by increasing agricultural income and by creating other employment opportunities in rural areas. In the case of India, the establishment of the Agricultural Technology Management Agency (ATMA = «soul» in Hindi) helped to create District Committees that can mobilise funds from various sources. These committees are constituted by representatives of all producer categories (including scheduled casts and tribes). The government sits on the committee, but without any decision-making power. Farmers themselves therefore decide every year how available financial resources will be utilised. Many successful cases have been recorded. For example, women groups engaged in aquaculture and have diversified with profit their activities in different areas such as milk, cheese and vegetable production. Elsewhere, women engaged in silk production with wild worms while protecting the neighbouring forest. In another place, small producers have started to produce mint and aromatic plants. In all cases, the flexibility of the ATMA system allowed disadvantaged

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5 Designer and Faye, Do new approaches to extension improve access and outcomes? Evidence from rural Uganda, 2005, World Bank  
6 Christoplos, Mobilizing the potential of rural and agricultural extension, FAO 2010  
7 Collier, Africa’s organic Peasantry: Beyond romanticism. Agriculture, Vol.3(2) Summer 2009 issue  
8 Swanson, Global Review of Good Agricultural Extension and Advisory Service Practices, FAO, 2008
groups to seize market opportunities by combining the creation of social capital, funding, technology and marketing, under the management of the producers themselves. Other experiences, such as Farmer Field Schools, created initially by FAO for integrated pest management, are beginning to show results in a variety of areas such as the sustainable management of natural resources, including genetic resources.

But even in areas where participatory methods are based on the creation of producer groups as in Kenya, Tanzania and Uganda, excluded farmers still represent more than 1/3 of the total. And it is the poorest who are more at the risk of being excluded.

### Agricultural research

Traditionally, agricultural research has been more concerned with increasing agricultural production than with reducing hunger and poverty. It has therefore focused on the improvement of productivity in conditions similar to those found on medium and large farms and on the resolution of their problems. It has contributed to the development of commercial (and sometimes industrial) agriculture based on the use of sophisticated equipment and large quantities of agrochemical inputs (fertilisers, pesticides, herbicides and veterinary medicines). These technologies assume a good integration in the market and either financial capacities or access to credit. They imply for farmers also to be able to take risks and be prepared to resist the shock of a bad year without being obliged to sell assets. The typical example is the Green Revolution technology which has increased tremendously average productivity while contributing to an acceleration in social differentiation that has left many smallholders on the side of the road. The Green Revolution technology explains at least in part the spectacular increase of Indian agricultural production but also that India remains the country in the world where there is the largest number of people in a state of chronic food insecurity.

It must be admitted that, until recently, little research has been devoted to specific problems facing smallholders: reduction of risk, the possibility of increasing agricultural productivity without having to resort to more cash, improvement of characteristics of products other than yield (taste, ease to cook the food, resistance to diseases, pests and climatic events, storage, etc.) Moreover, relatively little has been done on how to strengthen the institutional framework for agricultural development to make it more inclusive of smallholders, particularly when compared to the efforts made to develop advanced technologies such as GMOs.

The trend towards privatisation of research, either through private research or through private funding of public research, does not help to reduce the exclusion of the poorest. Indeed, private research has the ultimate objective of making profits, and for this, it needs to produce results that translate themselves into products of a private nature to which access requires a commercial transaction (purchase of equipment, hybrid or GMO seeds which have to be bought every year by producers, chemicals, fertiliser, etc.) and not public goods that could be accessed freely (knowledge, farming practices that rely only on knowledge and not on specific tools or inputs).

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9 Ibid.

10 Davis et. al, Impact of Farmer Field Schools on Agricultural Productivity and Poverty in East Africa, IFPRI discussion paper 00992, 2010

11 Meinzen-Dick, Adato, Haddad and Hazell, Impacts of agricultural research on poverty: findings of an integrated economic and social analysis, IFPRI, 2003
It seems evident that to ensure that research is geared more towards servicing the poor, public research and its funding must be increased.

**Information and markets**

As in the case of information on technologies, information on markets is accessible only to a minority of agricultural producers, the better off and the most educated. It is generally estimated that the two thirds of rural households have no information on market conditions\(^{12}\). Access to market information occurs through informal networks, sometimes through extension workers, more often through the radio and, of recent, through cell phones the development of which triggered a real information revolution. A World Bank study\(^{13}\) lists the positive effects that can be expected from the increased use of cell phones in rural areas (Figure 1). The authors of this study are probably over-optimistic, but they do acknowledge that for the time being these effects have yet to be confirmed on a large scale. This notwithstanding, some effects have already begun to be visible.

More information on market conditions can put producers in a better position to negotiate the price of their products with the buyer(s). A study conducted in Uganda shows that improving the market information of producers has increased market participation (increase by 1/3 of the proportion of producers participating in the market), raised the volume of sales and the price obtained, thus bringing an increase of income by 55% for vegetable production of beneficiary producers. However, better information of producers and greater market participation may also entail a drop in agricultural prices that will affect those producers who do not have access to information and will therefore find themselves in a weaker position\(^{14}\). The more marginal producers therefore suffer from the improvement of the conditions of the majority.

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\(^{12}\) Nederlof, Wenning and Heemskerk, op.cit.


\(^{14}\) Svensson and Drott, Tuning in the market signal: the impact of market price information on agricultural outcomes, 2010
Considerable efforts have been made to establish market information systems of varied levels of sophistication that were to guarantee access to information by the mass of producers. Results have however been at best disappointing. A survey by FAO of 120 countries showed that only 53 market information systems were functional, of which only 13 were producing daily information. Among them, only a handful could really be considered as successful\(^{15}\). Lessons will have to be drawn from these experiences so as to design and implement more effective systems that will be of an easier access to the mass of producers.

Besides the frequent lack of market information, the isolated smallholder who has neither the financial capacity nor the infrastructure to store properly his/her production and is in urgent need for cash at time of harvest to pay for schooling of children and the purchase of basic products, will be in a weak position when interacting with the local traders who often benefit from a quasi geographical monopoly. Alone, the smallholder is also unable to negotiate long-term contracts ranging over several years which could secure him/her a certain level of income security. In Uganda, in 2006, only 3% of farmers were selling their produce in the framework of long-term contracts\(^{16}\). In the absence of a farmer organisation able to have some weight on the market, the smallholder is often condemned to sell at a very low price or even compelled to abandon the idea to produce a surplus for the market,

\(^{15}\) Giovannucci, Market information services, A guide to developing agricultural markets and agro-enterprises, FAO, not dated

and he/she prefers to turn to activities other than agriculture to generate the cash required. This, of course, is not without consequences on agricultural productivity and production.

Agricultural mechanisation

In Africa, at the end of the 90s, 65% of the energy required for land preparation was of human origin\textsuperscript{17}. However, human labour makes it possible to cultivate only a maximum of 1.5 ha/worker. Changing from human energy to animal traction allows to increase the area cultivated to 4 ha/worker. Using a small agricultural tractor helps to further double the area and reach 8 ha/worker. It is weed management that in most cases is the most labour demanding activity. The inability to manage weeds properly may imply a reduction of yields of around 30%.

Disparities across countries are enormous. In 2002, the year for which there is most available data, there were 1.5 agricultural tractors/agricultural active person in France, the US and Italy. This ratio was 0.8 in Japan, 0.16 in Argentina, 0.06 in Brazil, 0.009 in India and 0.0007 in Mali (ratios calculated using FAO statistics). This clearly means that in India and in Mali, tractors are confined to a few privileged farmers, or they may also belong to the state who may rent their services through agricultural mechanisation centres to those producers who can afford to pay for them.

In this case too, small producers are excluded and must compete with a minority of better equipped producers.

Protection against pests and diseases

Even in the case of protection against pests and diseases which is generally considered as a public service as it generates benefits not only to those who are direct beneficiaries but also to the others as it reduces the risk of diseases and pest proliferation, the lack of public resources makes it that the majority of producers are excluded in poor countries.

For example, in 2003 in Mozambique, 96.8% of rural households did not benefit from vaccination against Newcastle disease that is a big threat for the poultry industry\textsuperscript{18}.

\textsuperscript{17} Sims and Kienzle, Farm power and mechanisation for small farms in sub-Saharan Africa, FAO 2006

\textsuperscript{18} Nederlof, Wenning and Heemskerk, op.cit.
Financial services

Access to finance is another typical domain from which the majority of poor producers is excluded.

Access to finance can be either through classical institutional financing (public or private banks), cooperative finance, microfinance, or through traditional informal financing (family, friends or usurers).

Using financial services helps to compound access to financial resources beyond own resources to meet financial needs (savings, investment, management of economic shocks, etc.). It is therefore a quasi indispensable input for managing properly a seasonal activity like agriculture which requires early expenditures at time of planting and the management of crops and generates income later, after the harvest.

Difficult access to finance is an issue which is constantly mentioned by agricultural producers when they are questioned about the constraints they meet in their work. Reasons for this are the cost of the service - that increases when it involves management of a large number of small loans -, distance and dispersion of producers, and the lack of adapted financial products.

There is a lack of systematic data that would help to have a good idea of access to financial services. One uses sometimes as a proxy the number of accounts/inhabitant. A recent World Bank study\(^\text{19}\) conducted with 124,000 persons in 123 countries analyses data organised by income level group. It shows, as could be expected, that the use of financial services is higher in rich than in poor countries, and that within a given country, it is the richer people who are more involved while the poor are excluded. Women, youths and elderly persons use less financial services that the population on average. Poverty is the main reason given in two thirds of the cases for not having an account. Women are generally more excluded than men. The lack of education and living in rural areas are other important factors of exclusion.

The study found that in poor countries, 59% of adults do not have a bank account and that the 20% richer people have twice as many chances to have an account as the 20% poorest. In some countries like Cambodia, the Central African Republic or Yemen, only 5% of adults have an account. In Niger, 99% of the adults do not have an account.

Some more examples drawn from various sources illustrate this situation:

- In Thailand in 1997, while 80% of the producers were registered at BAAC (Bank for Agriculture and Agricultural Cooperatives) either individually or through cooperatives or associations\(^\text{20}\), only 43% (3.4 million farms) had benefited from loans. Very few loans had been granted to poor farmers\(^\text{21}\).
- In Salvador, the Financiera Calpiá was administering some 17,500 loans to 7,300 clients of whom less than 5% were smallholders.

\(^{19}\) Allen, Demirguc-Knut, Klapper and Peria, The foundations of financial inclusion, World Bank 2012

\(^{20}\) Coffey, Agricultural Finance: getting the policies right, Agricultural Finance Revisited, FAO/GTZ, 1998

\(^{21}\) Klein, Meyer, Hannig, Burnett And Liebig, Better Practices In Agricultural Lending FAO/GTZ 1999
• In Peru, the Cajas Municipales de Ahorro y Crédito (CMACs) were working with less than 1% of farms in 1996.
• In Mozambique, in 2003, 87% of the rural households never had access to any financial service.\footnote{Nederlof, Wenning and Heemskerk, op.cit.}
• In India, the share of usurers in credit has fallen from 93% in the 50s to 31% in 1991. This was possible first because of the development of public financial institutions, and then by the development of private finance, in particular linked to input sellers, that progressively has replaced financial services offered by banks. Banks, on their side, were less and less interested by the rural sector after the reform of the financial sector in 1991. In spite of this rather positive evolution if one considers the reduction in importance of usurers, a national survey conducted in 2003 showed that more than 50% of all farms were totally excluded from financial services, this proportion being even higher for small farmers, marginal farmers and tribal populations.\footnote{Satyasai, Rural Credit Delivery in India: Structural Constraints and Some Corrective Measures, Agricultural Economics Research Review, Vol. 21 (Conference Number) 2008 pp 387-394}

The example of India calls for a special remark regarding reform of the financial sector conducted by several countries. These reforms have often allowed banks which had initially been established to deliver agricultural credit to diversify their activities and work in urban areas (this has been the case of the Crédit Agricole in France). The result of this kind of reform is that in many cases agriculture has seen its share in these organisations’ activities reduce very rapidly because of the risks, the costs and the difficulties that characterise agricultural credit. These organisations have become increasingly involved in urban areas and in the financing of trade or construction activities.

In Mali, where according to a World Bank study, only 2% of the total agricultural producers have access to agricultural credit (mostly for the annual purchase of agricultural inputs), Kafo Jijine, the cooperative bank established in 1987 by agricultural producers to conduct microfinance operations only had around 50% of its activities left in agriculture by 2012. At the same time, the local Agricultural Development Bank only had 12% of its turnover in credit activities for farmers.\footnote{Maetz, Berman, and Mas-Aparisi, Assessment of capacity development gaps influencing investment decisions and results, The case of Mali, FAO 2011}

The situation was not much different in Bhutan where 2% of the bank credit was going to agriculture in 2012 (agriculture represents around 14% of GDP and is a source of livelihood for more than 68% of the population). Moreover, conditions required to obtain a loan eliminate automatically small producers and the financial products available are not adapted to agriculture (short grace period, short credit duration, high interest rate). On the other hand, microfinance is just embryonic in Bhutan and also not so well adapted to agricultural investments (short duration of loans of only one year and high interest rates).\footnote{Maetz, Dophu Dukpa and Yeshey Dorji, Private investment in agriculture in Bhutan, Ministry of Agriculture and Forests, Royal Government of Bhutan, 2012}

It may be that cell phone based financial services will at last give the opportunity to some three billion of excluded people to have access to financial services. The first results in Kenya and Uganda are encouraging. In this latter country, objectives remain however modest: MAP International aims at giving access to a bank account to 2 million Ugandans,
out of a total population of 32 million. In Kenya, however, progress made by M-PESA have been impressive: almost 2.5 million clients during the first year (2007) and more than 15 million in 2012.

In India, cooperative banks like BASIX (3.5 million clients of which 90% are rural and poor and 10% live in urban slums) and SEWA (60,000 women members and 100,000 loans) open up perspectives for the poor and marginalised, in particular for women. But these are as yet only drops of “solidarity economy” in a huge financial desert.

**Natural resources: land, water, forests and genetic resources**

Exclusion also is the lot of most people with respect to natural resources to which access is increasingly privatised and subject to the capacity to pay or to political influence. The bulk of hungry people in the world are either small-scale farmers working on small plots of land or landless labourers. Some communities, which until recently could use their traditional rights to use the land around their village, are now excluded because of the land grabbing movement which is conducted by influential local people, rich urban dwellers, civil servants or foreign companies. This trend has accelerated as prices of agricultural products rose, making agriculture an increasingly attractive sector.

Water is also increasingly eyed whether it is for use for irrigation, often the privilege of a few considering the costs involved to make land irrigable, or for the rapidly growing needs of the urban population, industry, tourism and hydropower.

Even genetic resources have progressively shifted from the public to the private domain with the development of hybrid seeds and GMOs. This trend has led to a real expropriation of the majority of the population and is threatening biodiversity. As for forest resources, rural communities are caught between markets and the objective of conserving the planet.

Issues related to natural resources are discussed in greater details elsewhere on this site [read on **land**, **water**, **genetic resources**, and **forest resources**] but it is already possible to state here that exclusion of the majority of people has increasingly become the rule.

**Alternatives to agriculture**

To earn sufficient income and become able to have access to sufficient food, poor agricultural producers often have to turn to activities other than agriculture. Traditionally, non-agricultural income has been an important part of income in some regions like Africa. The development of agroprocessing or manufacturing in urban or peri-urban areas offers employment opportunities for poor producers. Unfortunately, with economic development, jobs created are increasingly qualified and require a minimum level of education that is inaccessible to the poorest people, as will be seen in a later section. In this case too, the poor are being excluded.

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Insurance

Agricultural insurance is mostly available only in richer countries. For example in 2001, 55% of the insurance premiums for agriculture and forests were paid in North America (these premiums benefited from a government subsidy of more than USD10 billion in 2012) and 29% were paid in Western Europe. Premiums paid in Asia and Latin America represented 4% of the total each, while Africa only paid 2\%\(^{29}\).

![Image of agricultural field](image)

Generally, in a given country, only the largest producers have an agricultural insurance. In India for example, in 2000, insurance covered 15.7 million ha owned by 10.5 million producers out of a total of 121 million producers of which 99 million are considered to be small and marginal\(^{30}\). Innovative insurance schemes, based on the use of the cell phone technology, are developing and aim to include a large number of farmers\(^{31}\).

Education and literacy

Education and literacy are, in many poor countries, limited to the privileged part of the population. Figures 2 and 3 illustrate well this situation, as shown in the 15 countries studied by a group of researchers from IFPRI\(^{32}\). The data show that the percentage of men more than 18 years old living with less than one dollar per day who have no education is clearly more than this proportion for those who have more than one dollar per day. These diagrams also show that the situation is even less favourable for women.

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\(^{29}\) Roberts, Insurance of crops in developing countries, FAO 2005

\(^{30}\) Ibid.

\(^{31}\) Syngenta Foundation, Agriculture Index Insurance: Kilimo Salama

\(^{32}\) Ahmed et al. World’s most deprived characteristics and causes of extreme poverty and hunger, IFPRI 2007
Social services

It is important to acknowledge that social protection and safety nets are indispensable ingredients of food security for the less favoured. Some countries have well understood this fact and are showing the way forward:

“It is the case of South Africa, Mexico, Brazil and India. But at the world level, 80% of families have no access to it: the loss of their job, sickness or old age leave them...
without any help at a time when community solidarity is on the decrease. This is due to several factors. Besides the absence of political will and insufficient resources, countries with less diversified economies fear not to be able to finance programmes covering a large part of the population at times of crisis in case an exogenous shock (a sudden increase in the price of imported food) or endogenous shock (drought) occur”.

On the basis of this diagnosis, the Special Rapporteur of the United Nations on the Right to Food, Olivier de Schutter, proposes the creation of a World Social Protection Fund which would help governments to overcome the financial difficulties they face for establishing social programmes and ensure that they will be able to fund additional needs for social protection that would occur in case of shocks.

Social security and health

They are embryonic in most poor countries and limited to workers in the formal sector, especially the public sector. The rest of the population has to manage by themselves and use traditional solidarity mechanisms or forget any protection and bear the full brunt of possible shocks. According to the French aid agency AFD (Agence française pour le développement), 85 to 90% of the population is excluded from the health system in West Africa.

Politics

To end this section, let us remind readers that until recently, political activities were left to an élite. With the progress of democracy, the weight of the population in political and policy decisions has increased although it remains still limited in the case of the poorer groups. This is particularly true for “technical” decisions related to economic and social policy and that remain the domain of “experts” whether national or international. There are only a few are the countries where civil society and particularly rural or farmer organisations, have a real weight and capacity to influence effectively decisions that affect so strongly their lives and their capacity to earn an income that could lift them out of poverty and hunger.

To conclude

This quick review of a certain number of critical areas for food security showed that practically all were characterised by the exclusion of the majority of the population, particularly the most destitute.

It is therefore no surprise that hunger and poverty are so persistent, as the people who suffer most are, in their large majority, excluded from benefiting from development programmes and from the few operational social programmes.

The conclusion of this review is straightforward: every time a state decides a measure in a domain that has been reviewed here, the first question to be made is: “Will this new planned measure help to include more the poor in the development process?” Only a positive answer to this question would ensure that a step has been taken towards the reduction of undernourishment and poverty. A negative answer would mean that the

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33 Olivier De Schutter, Special Rapporteur of the United Nations on the Right to Food, Alternatives Economiques n° 320 - January 2013
measure planned would simply further exclude people and therefore contribute to even more hunger and poverty.

It is not enough to take measures to include the poor in the market as consumers, as proposed by the OECD or to consider that any technical innovation should imply a reduction of employment\textsuperscript{34}. Rather, efforts should be made to include the poor as producers so that they may benefit from opportunities to improve their income sustainably.

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(January 2013)

\textsuperscript{34} OECD, Innovation and inclusive development: Discussion Report, 2012