

# The effects of a Global Agricultural Policy on the smallholder farmers in ending hunger

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**Abstract.** There are approximately 500 million smallholder farmers around the world that support over 2 billion people. They also represent 97% of the agricultural holdings and produce food for almost 70% of the world's population. In the past decades, short term measures have been taken in order to improve their productivity, strengthen access to resources such as water, energy, land, and improve access to markets and financial services. At the same time, the number of national and regional agricultural policies has increased, each focusing on specific parts of the food chain. These policies helped develop standards for food safety, access to markets, labeling etc. Smallholder farmers have responded by adapting to them and managing the risks associated with this adaptation. When debating about a Global Agricultural Policy (GAP), we also discuss about new standards for all things associated with food production being imposed on smallholder farmers.

**Key Words:** Smallholder farmers, food security, standards, policy efficiency.

**Résumé.** Il ya environ 500 millions de petits agriculteurs dans le monde qui soutiennent plus de 2 milliards de personnes. Ils représentent aussi 97% des exploitations agricoles et produisent de la nourriture pour près de 70% de la population mondiale. Dans les dernières décennies, des mesures à court terme ont été prises afin d'améliorer leur productivité, de renforcer l'accès à des ressources telles que l'eau, l'énergie, la terre, et améliorer l'accès aux marchés et aux services financiers. Dans le même temps, le nombre de politiques agricoles nationales et régionales a augmenté, chacun se concentrant sur des parties spécifiques de la chaîne alimentaire. Ces politiques ont contribué à l'élaboration de normes pour la sécurité alimentaire, l'accès aux marchés, l'étiquetage, etc. Les petits agriculteurs ont réagi en adaptant à ces normes et en gérant mieux les risques associés à cette adaptation. Lors du débat sur une politique agricole mondiale (GAP), nous discutons aussi de nouvelles normes pour toutes les choses liées à la production alimentaire imposée sur les petits agriculteurs.

**Mots-clés:** Petits exploitants agricoles, sécurité alimentaire, normes, efficacité de la politique.

## Introduction

Half of the world's population works in agriculture. While 40% of those working in agriculture are in waged employment (approximately 440 million people), 60% are self-employed, mainly as smallholder farmers (Fyfe, 2002). In most countries, smallholder farming remains at subsistence and semi-subsistence level, smallholder farmers lacking access to resources (land, water, energy), services (research and development, financing) and markets. The emergence of regulations and standards and the market demands for food safety and organic foods have affected smallholders both positively and negatively. It is important to set out clear policy guidelines between food security, food safety and export-led development of smallholder farming.

Despite in some cases, the introduction of voluntary standards and certification (such as the Global GAP) has led to a short term increase in farm gate prices and, indirectly,

in farmers' income, the long term effects have not been thoroughly studied. The volatile nature of the food chain has led, when taking into account the trade-offs between higher incomes, food security and food safety, to an increasing gap between farmers who have embraced new export standards and the subsistence farmers. Certification and voluntary standards are not an option for all smallholder farmers, as they require significant external support and they are submitted to thresholds of economic viability (such as farmed surface, access to resources etc.) that, if not met, could result in the disappearance of the farmer.

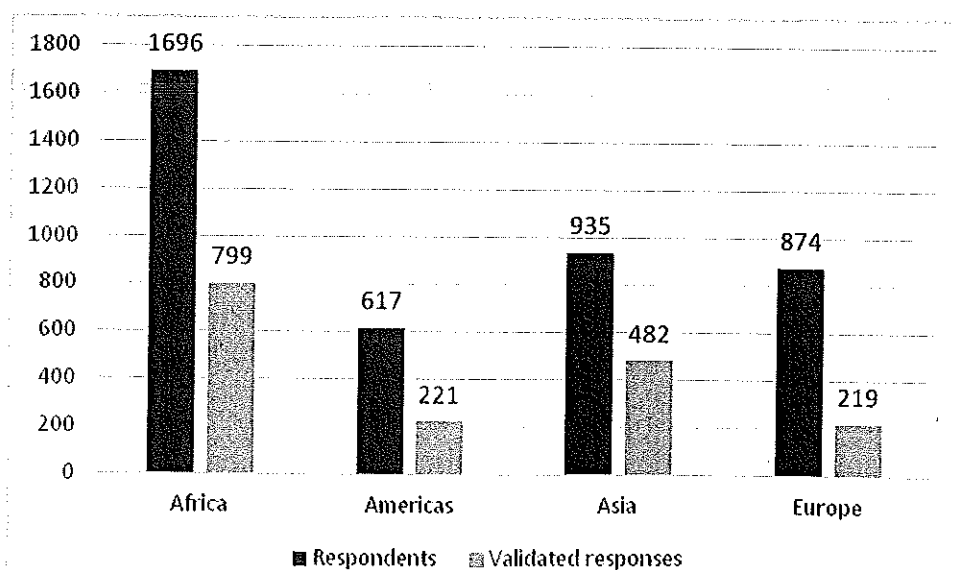
This research analyzes the effects of agricultural policies on smallholder farmers and the extent on which the impacts of a global policy would have on them. Taking into account the opinions of smallholder farmers on the emergence of a global agricultural policy, the research presents the risks associated with such a policy and forecasts the measures that individual farmers need to take in order to protect themselves. The present paper showcases, as resulted from the research, the opinions of smallholder farmers on the effects of a GAP and the emergence of new standards in relation to their agricultural practices.

### Material and Method

The present research uses a Quantitative Socio-Economic Policy Impact Analysis, adapted from the Food and Agriculture Organization (FAO) model and a Joint Topic-to-Policy Analysis Framework. The materials used are agricultural policies currently being in different stages of implementation and available through the FAO.

The target population for this research was set as smallholder farmers, aged under 55, with an exploited surface of under 3 hectares and without employed work. In order to validate the research, a threshold of 3500 survey responses from 20 countries has been set and a single-choice questionnaire with 23 questions has been developed. The questionnaire was done through online survey tools and was divided into 3 parts. The first part was used to identify the respondent. The second part was used to secure opinions regarding the likelihood of a GAP, while the third part was developed to obtain the most prevalent concerns regarding the implementation of such a policy.

4122 survey responses from 21 countries (11-Africa, 4-Europe, 4-Asia, 2-South America) were received (*Figure 1*).



*Figure 1. Total number of respondents and validated responses per region*

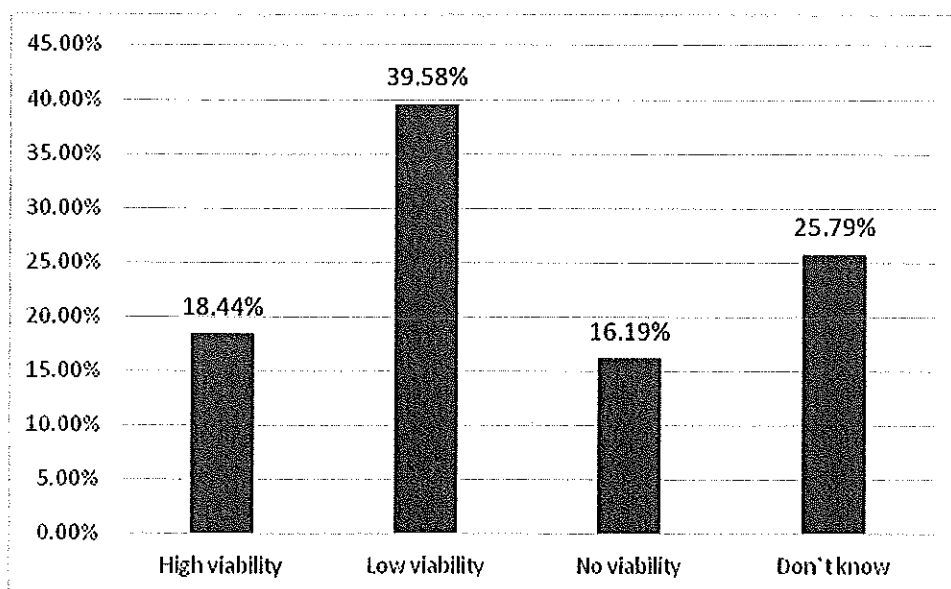
Out of these, 1721 responses were validated according to the set criteria, validating the research results. The responses were also analyzed through a stakeholder analysis framework, trying to determine the stakeholder expectations, short and long term concerns associated with the development of a GAP. No personal data that would help identify respondents has been collected and stored.

## Results and Discussion

Smallholder farmers are classified by international organizations such as the FAO and the World Bank (WB) as agricultural holdings with a surface between 1 and 3 hectares of arable land. Although they represent 97% of the agricultural holdings in the world, they are not considered as major stakeholders in the decision making process and, as such, not directly involved in policy making.

Regardless of this fact, when asked about the viability of developing and implementing a GAP, 55.77% consider that it has a low or no viability as it will lead to the diminishing of the number of smallholder farmers on short term (*Figure 2*).

18.44% consider that a GAP would have a high viability, notwithstanding the disadvantages that it would bring to smallholder farmers.



*Figure 2. Viability of a GAP according to smallholder farmers (%)*

When asked to respond to possible disadvantages that the implementation of a GAP would bring to smallholder farmers, it was agreed that the biggest threats would be a diminished access to resources (land, water, energy, funding, research and development) and to national and international markets (*Figure 3*).

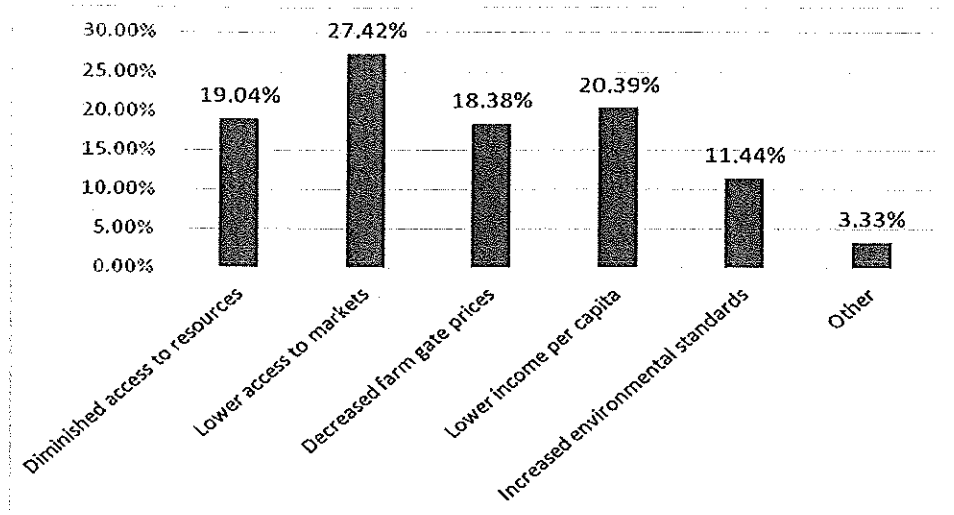


Figure 3. Disadvantages of a GAP according to smallholder farmers (%)

The main disadvantages that smallholder farmers consider would affect them when a GAP would be implemented are a lower access to markets (27.42%) and a lower income per capita (20.39%), both directly by the introduction of new standards.

The standards and certifications (Figure 4) smallholder farmers believe will be imposed through a GAP are related to environment (35.50%) and food safety (32.84%), with animal welfare representing a key concern in areas in which livestock represents the main farming practice.

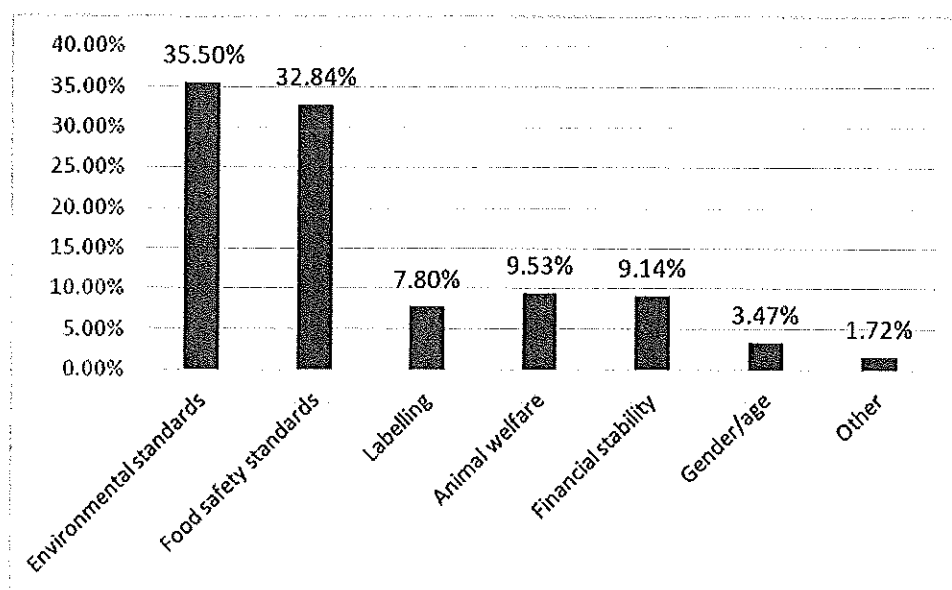


Figure 4. Type of standards imposed by GAP according to smallholder farmers (%)

While gender equality and age are of high interest on the global policy agenda, smallholder farmers consider that a GAP would not change current gender/age related practices. 3.47% of the respondents (Figure 4) consider that there will be new standards regarding gender and age equality, but that they will be maintained as voluntary standards and guidelines.

Although, as shown, smallholder farmers do not consider as high the likelihood of a GAP being developed and implemented, many consider that it would bring certain advantages if correctly developed.

As it can be seen in Figure 5, the main two advantages that smallholder farmers forecast are higher access to resources (33.60%) and higher farm gate prices (25.45%), both leading to a higher income per capita. The introduction of risk management services (7.01%) and tools is considered also as an opportunity that a GAP would bring, especially when smallholder farmers are taking into consideration the effects that climate change and natural disasters have on yield productivity and on their long term viability.

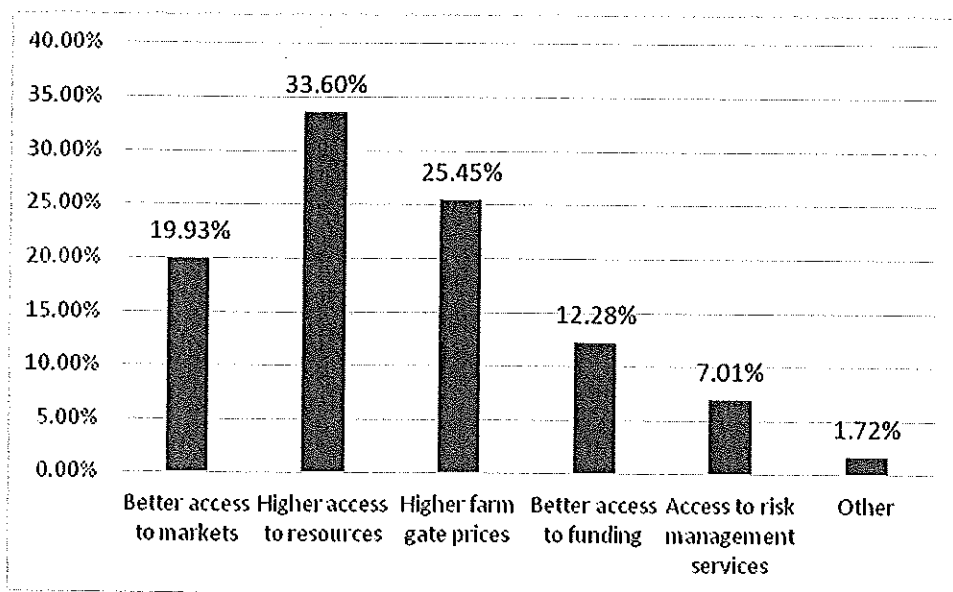


Figure 5. Advantages of a GAP according to smallholder farmers (%)

## Conclusions

While there are both advantages and disadvantages for smallholder farmers if a GAP is developed, we cannot forecast the impacts of such a policy on either a short or long term basis. A policy's efficiency can be evaluated through its impact from a social and economic point of view after its implementation in all target areas and on all stakeholder groups.

The viability of a global agricultural policy is as low or extremely low by subsistence and semi-subsistence farmers due to the risks that it might bring on the existence of their holdings. Although other interested stakeholders, such as policy makers and the corporate sector, consider that an integrated approach to global agriculture is needed in order to ensure global food security (Paveliuc-Olariu, 2013).

Robert Paarlberg (Harvard University) commented on the impact that a GAP would have on smallholder farmers: *"There are national policies, but very few "world" policies, unless you count things like development assistance and food aid - that are still financed by national governments. Regions that are facing serious under nutrition such as Africa will need more development assistance in order to be well fed by the year 2050"* (Paveliuc-Olariu, 2013). And, while an integrated approach is called for, imposing new standards on smallholder farmers could see a decrease in farm productivity and, thus, would lead to a bigger food security crisis.

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## **References**

Fyfe A., 2002 - Bitter Harvest, Child Labour in Agriculture, ILO Research Paper.

Food and Agriculture Organization of the United Nations, (2012). *The State of Food Insecurity in the World 2012*: [www.fao.org/docrep/016/i3027e/i3027e00.htm](http://www.fao.org/docrep/016/i3027e/i3027e00.htm), accessed December 21, 2012. Rome

IFPRI (2013). *Global Food Policy Report 2012*. Washington DC.

Paveliuc-Olariu C., 2013 - Developing a Global Food Security Policy. *AAB Bioflux* 5(3):169-173

United Nations, Food and Agriculture Organization, 2003 *World agriculture: towards 2015/30 - An FAO perspective*

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