**Mandate of the Special Rapporteur on the right to food**

**Questionnaire for non-governmental stakeholders to inform her report to the 34th Session of the Human Rights Council**

There is significant scientific and testimonial evidence that the use of pesticides has had detrimental effects on not only the environment but also human health, through direct exposure, as well as through contamination of food, air, water and soil. Among several human rights implicated, pesticides may threaten the enjoyment of the right to food by causing long-term damage to agricultural land, water and the ecosystem, including through loss of biodiversity.

The thematic report on pesticides and the right to food will discuss the negative implications of the use of hazardous pesticides in food production, including when used excessively and inappropriately, and the impediments their on-going use present to the adoption of safer, more sustainable alternatives, including agro-ecological practices. It will highlight the link between the use of pesticides and a wide range of human health and environmental hazards, ranging from short-term to chronic impacts, including cancer, reproductive harm, and endocrine disruption. In particular, it will focus on groups especially vulnerable to the effects of pesticides, including (subsistence) farmers and farm workers, children and pregnant women, and in certain cases due to their particular circumstances, indigenous peoples, minorities, migrants and seasonal workers.

The purpose of this questionnaire is to help ascertain how the right to food informs government policies and industries’ responsibility with regard to the use of pesticides. We would be grateful for your input on the following questions:

**Situation of use of and risk from pesticides in Bolivia (Centre for Development and Environment, University of Bern, Switzerland, and Probioma, Bolivia)**

Centre for Development and Environment / University of Bern: We answer the questionnaire for Bolivia using indications from our current research project “Towards Food Sustainability: Reshaping the coexistence of different food systems in South America and Africa” (http://www.r4d.ch/modules/food-security/food-sustainability), noting that we did no specific data sampling on pesticides so far. However, the topic keeps coming up throughout the research process at different levels (farmers, consumers, politicians, NGOs…). We also cite relevant literature on the topic. Further, we received answers to the questions from the Bolivian NGO Probioma (http://web.probioma.org.bo/), who has been working more than 20 years on environmental topics in the Santa Cruz Department of Bolivia.

Probioma: Our answers are informed by the reality of our everyday-work. It is a reflection about the social-environmental disaster of water now (Nov/Dec 2016) taking place in more than 65% of our national territory, with highest impacts on the cities of La Paz and El Alto, which is also a consequence of deforestation of more than 3.5 million hectares of forest between 2005 and 2015, due to agricultural expansion for agribusiness and extensive cattle rearing. Many of those activities are taking place in form of agricultural colonization projects planned by the government in the Chiquitanía, Amazon, and Chaco regions. Meanwhile, how the Bolivian press mentioned some days ago, we import more than 150 different types of food which we used to produce in Bolivia before. In these topics, there is a large involvement of the Bolivian government, i.e. the central, departamental and municipal governments.

1. The use of pesticides has had detrimental effects not only on the environment but also on human health, both from direct and indirect exposure. What are the successful and unsuccessful measures taken by Governments and businesses to prohibit, ban, restrict and phase out pesticides that are harmful to human health?

In Bolivia, import of chemical fertilizers has risen 518%, chemical fungicides 1361%, chemical insecticides 322%, chemical herbicides 204% (Probioma, data obtained from the National Institute of Statistics) during the last 16 years (1999-2015). The planned reduction of the use of chemical fertilizers and pesticides is mentioned in laws and development plans, but in practice the “green revolution” model is being implemented. This increase has been a challenge for the Ministry of Agriculture in managing pesticide handling and usage. Research shows that the regulation of pesticide imports and sales is poor, that there is little knowledge of safe pesticide use among traders and farmers, and an inadequate use of personal protective equipment among farmers in Bolivia (Haj-Younes et al. 2015). 12.5% of all pesticides found on farms during that study were banned in Bolivia and one third lacked the necessary Ministry of Agriculture stamp for authorization. 43.9% of the pesticides found on farms belonged to WHO class I (Highly hazardous). 60% of the pesticides were obsolete (expired, prohibited, or not stored in original container). SENASAG, the National Service for Agricultural Health and Food Safety, found obsolete (prohibited, deteriorated or unknown) pesticides in 99% of the 343 investigated households (SENASAG 2013). Bolivia has ratified international treaties on the use of pesticides (Stockholm Convention, Rotterdam Convention, International Code of Conduct on the Distribution and Use of Pesticides). However, Jors 2006 found Aldrin, Dimethoate and Parathion being frequently used although banned in Bolivia. Parathion is classified as highly hazardous by the WHO and was found to be used by 23% of farmers interviewed (Jors 2006). Popular agrochemicals like Roundup have a green certificate (“not harmful”). Several hazardous pesticides banned elsewhere are commonly sold and used in Bolivia (e.g. “Paraquat”).

1. Do you believe that is possible to shift from industrial agriculture systems to agro-ecological methods?

Certainly, but agroecological methods are not enough. Agroecology is a science, a practice and a social movement, and cannot be depoliticized. Agroecology is a need and it will be beneficial for everyone in a democratic, just and sustainable way.

1. Some particularly exposed or vulnerable groups such as children, pregnant women, farmers, farm workers, indigenous peoples and migrant workers, are at greater risk to the effects of pesticides due to higher exposure or increased sensitivity. Please explain the efforts undertaken by Governments and businesses to prevent and mitigate detrimental impacts of pesticides on the health of these vulnerable groups.

We could not find evidence of any such programs in Bolivia. The risks from pesticides are rather being ignored or downplayed and we see people –including children- everywhere mixing and applying them without any protective methods. Even DDT has been detected being used in agriculture in the Altiplano of Bolivia (interview with CNAPE 2014), and was found in elevated levels in blood samples of agricultural workers in East Bolivia (Mercado et al. 2013).

In Bolivia, self-poisoning with pesticides is the leading method for committing suicidal attempts and suicides, and is most numerous among adolescents (Jors et al., 2014).

Probioma adds the information that there is no such effort as suggested by the question, and no interest has been stated by the Bolivian state to gather information about pesticides impacts on vulnerable groups. Providing enterprises of hazardous agrochemicals focus on their promotion and commercialization.

1. Is there any study that has been conducted by your organization using disaggregated data to differentiate and detect impacts on above mentioned vulnerable groups?

We conducted a study on perceptions of health impacts of different food systems in the Santa Cruz Department. Local families interviewed mentioned negative health impacts from agrochemicals, especially associated with soy production (areal fumigation with glyphosate and others). Interestingly, many interviewees stated that they would never eat what they produce because of the high chemical inputs and transgenic nature of crops.

1. States have an obligation and businesses a responsibility to implement the right to information on hazardous substances. How are Governments and businesses ensuring that pesticide users and consumers are informed of the hazards and risks of pesticides used in food production?

From the state we are not aware of any such program. Corporations have technical staff, however, they work mainly with medium- to large-scale producers and to a much lesser extent with small-scale producers, who are the groups that we most see applying chemicals without any protective measures and often also with very little knowledge what they are actually applying, e.g. herbicide on lettuce, or mixing up to 10 different agrochemicals, and when asked, responding in the sense of “the more different substances, the better”. We assume that there is a severe lack of information and even misinformation because propaganda for pesticides is everywhere along the streets in and around Santa Cruz de la Sierra.

Probioma states that the Bolivian government has not being conducting any campaign to inform or raise awareness on possible health impacts of pesticides. Some enterprises have information programs, however, these are rather promotion events of their products than sensibilization about possible health impacts and safe use.

1. Please provide your views on good practices by Governments and business to assess, monitor, prevent and mitigate the risks of exposure to hazardous pesticides, and what further steps could be taken. Answers may focus on systems present at the national, regional and/or the global level.

The only good practice we were able to identify during our research on the agro-industrial food system in the Santa Cruz-Department of Bolivia was the “Campo Limpio” program by Crop Life, which consists of providing incentives to farmers to return empty pesticide bottles. A widespread problem is that bottles are thrown into water bodies or simply on the ground after use. According to La Razon, one of Bolivia’s major newspapers, 200 tons of pesticide bottles have been collected in 2015 (http://www.la-razon.com/index.php?\_url=/sociedad/reciclaje-agroquimicos-plastico-200\_toneladas\_0\_2454354620.html). However, the initiative is not likely to lead to a reduction of the use of hazardous pesticides.

An important step would be the rigorous application of the precautionary principle: A substance should not be allowed to be imported, produced, sold or applied until proven safe and harmless for human and environmental health.

Prohibited and obsolete pesticides could be recollected from farms and stores and treated as toxic waste. Pesticide regulations need to be enforced. Smuggling, sale and use of prohibited pesticides should be prosecuted. Country borders need to be controlled for pesticide smuggling, and labels need to be verified (also in the stores).

Probioma adds that the risks of pesticide use has maximized, but there are no programs to assess, monitor, prevent and mitigate risks form agrochemicals.

1. Gaps and weaknesses in international and national regulatory systems allow the use of pesticides that are unsafe, even when used legally and per instruction, on the market. Please provide examples of regulatory gaps (e.g. flaws in the registration process of pesticide products, lack of rigorous testing and safety standards, and lack of full disclosure to the public) and good practices in building effective protection frameworks governing the production and use of pesticides.

A problem mentioned by various interviewees in our research on food system sustainability is that many substances enter the country illegally and uncontrolled. We have heard many reports that the green (not harmful) to red (very harmful) labels are put on the bottles by the smugglers and are therefore not reliable. In theory, SENASAG controls agrochemicals that enter the country, but different interviewees told us that they are not.

Probioma states that the processes of introduction of pesticides into the Bolivian market are very flexible. Also, the responsible institution for inspection (SENASAG) receives a major part of its income via permits for agrochemicals. There are only three inspectors for the whole Department of Santa Cruz. Under these circumstances, there is a great institutional weakness to implement rigorous control of imported and sold pesticides. Furthermore, there is a vacuum in monitoring pesticide residues in food.

1. Please provide examples of successful efforts (supported and incentivized by Governments) to reduce the use of pesticides in agricultural food production, including ecological methods of pest control and agro-ecology.

The National Council for Ecological Production (CNAPE), in charge of the national Participatory Guarantee System, a Master’s program in agroecology, and a Master’s program in agroforestry, but these initiatives are few and very small, and certification is said to be rather bureaucratic for small farmers.

Probioma adds that the government has elaborated laws and programs on ecological production (e.g. law 3525), but they have had almost no impact, because of a severe lack of the assignation of financial means and political will to their implementation and a transformation of the agrarian model. Some non-profit-organizations have projects on minimizing the use of agrochemicals, for example Probioma has contributed to the replacement of 303 000 liters of agrochemicals with ecological products between 1998 and 2015.

1. Please share any information regarding court decisions or on-going litigation in relation to the detrimental effects of pesticides, in particular in relation to the right to food.

According to Probioma, food-related activities of the state are concentrated on processing and hygiene of food. Regarding pesticides, there have been no court decisions known to the public.

1. Please provide any additional information you believe would be useful to understand challenges confronting Governments and businesses in their efforts to prevent and mitigate adverse impact of pesticides on human health, right to food and the environment.

Our research indicates that there is pressure from agribusinesses and vendors of agrochemicals backed by farmers who are told that more and better inputs are the only way of modernizing the weak farming sector; lack of visibility of alternatives make even small scale farmers’ groups pressure for cheap pesticides and green revolution technologies. For example, an interviewee from a major transnational pesticide company said in an interview in April 2016 that principally, Thimathoxam, other Neonicotinoids and Himedatrapin were used against pests. He also said that to tackle the increasing problems with pests, the company would like to use Metamidophos and Endosulfan, but that they were prohibited, and therefore, it would be very difficult to combat pests in the future.

Probioma states that there are no efforts from the state (referring to the national, departamental and municipal government) for mitigating adverse impacts of pesticides on human health, the right to food and the environment.

References:

Food and Agriculture Organization of the United Nations. (2013). *Estimated tons of obsolete pesticides in major storage sites in Bolivia*. Table presented at 2do. Congreso Internacional Plaguicidas y Alternativas, SENASAG. Retrieved June 23, 2014, from <http://www.senasag.gob.bo/>

Haj-Younes, J, Huici, O., and Jors, E. 2015. Sale, storage and use of legal, illegal and obsolete pesticides in Bolivia. Cogent Food and Agriculture 1: 1008860, DOI: 10.1080/23311932.2015.1008860

Jors, E., Morant, R. C., Aguilar, G. C., Huici, O., Lander, F., Balum, J., & Konradsen, F. (2006). Occupational pesticide intoxications among farmers in Bolivia: A cross-sectional study. E*nvironmental Health: A Global Access Science Source, 5*, p. 10. http://dx.doi.org/10.1186/1476-069X-5-10

Jors, E., Christoffersen, M., Veirum, N. H., Aquilar, G. C., Morant, R. C., & Konradsen, F. (2014). Suicide attempts and suicides in Bolivia from 2007 to 2012: Pesticides are the preferred method—Females try but males commit suicide! *International Journal of Adolescent Medicine and Health, 26*, 361–367. doi:10.1515/ijamh-2013-0309

Mercado, L. A., Freille, S. M., Vaca-Pereira, J. S., Cuellar, M., Flores, L., Mutch, E., Olea, N., Arrebola, J. P. 2013. Serum concentrations of p,p’-dichlorodiphenyltrichloroethane

(p,p’-DDE) in a sample of agricultural workers from Bolivia. Chemosphere, online first.

SENASAG (2013). ASISTENCIA TECNICA PARA EL MEJORAMIENTO DE LA GESTIÓN DE PLAGUICIDAS OBSOLETOS EN BOLIVIA. Available at: http://www.senasag.gob.bo/registros-e-insumos-agricolas/plaguicidas-obsoletos.html

United Nations Environment Programme Chemicals. (2003). *Regionally based assessment of persistent toxic substances* (Global Report 2003). Retrieved October 10, 2014, from [http://www.chem.unep.ch/pts/gr/Global\_ Report.pdf](http://www.chem.unep.ch/pts/gr/Global_%20Report.pdf)

Due to limited capacity for translation, we kindly request that you submit your answers **no later than 5 December 2016. All responses will be posted on the web pages of both Rapporteurs unless you indicate otherwise.** Please send your responses preferably via email to: [srfood@ohchr.org](mailto:srfood@ohchr.org), copying [registry@ohchr.org](mailto:registry@ohchr.org); or to:

Special Rapporteur on the right to food

Sustainable Human Development Section

Special Procedures Branch

OHCHR-UNOG

Office of the High Commissioner for Human Rights

Palais Wilson

CH-1211 Geneva 10, Switzerland

Fax: +41 22 917 9006