

## **Submission by FIAN International to the Secretariat of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)**

**Re: Response to the invitation to submit views and other information on “Digital Sequence Information – DSI” (Notifications NCP GB8-016 MYPoW/DSI and NCP GB8-020 MYPoW/DSI).**

FIAN is an international human rights organization that promotes the right to food and nutrition. The organization consists of national sections and individual members in over 50 countries around the world. FIAN is a not-for-profit organization without any religious or political affiliation and has consultative status to the United Nations. FIAN's International Secretariat is located in Heidelberg, Germany. For more information, please see [www.fian.org](http://www.fian.org).

1) Regarding the terminology used in this area,

FIAN considers that the terminology currently used is not consistent and varies according to different uses, such as research, characterization of genetic resources, application of intellectual property law, etc. Therefore, clarity is required, in particular to ensure that the terminology includes genetic, epigenetic, and other information, as well as their direct relationships with an organism's particular traits.

2) Regarding the actors involved with DSI on PGRFA,

FIAN strongly emphasizes the need to give due attention to farmers and indigenous peoples in the context of DSI. Farmers and indigenous peoples have been those developing, maintaining and improving plants for food and agriculture throughout human history. The pool of PGRFA created through their constant and deliberate efforts, and which they continue to develop today, is the basis from which most of the sequenced and digitalized genetic information stems. While this information is used by other actors for different purposes (including commercial purposes), farmers and indigenous peoples are concerned as those having – often unknowingly – provided the respective PGRFA. In addition, patents and other forms of intellectual property rights over this information can restrict the rights of farmers and indigenous peoples over these PGRFA, which are guaranteed under the ITPGRFA, the Convention on Biological Diversity, The Nagoya Protocol on Access and Benefit Sharing, as well as several international human rights instruments (International Covenant on Economic, Social and Cultural Rights, UN Declaration on the Rights of Indigenous Peoples, UN Declaration on the Rights of Peasants and Other People Working in Rural Areas, General Recommendation No. 34 of the UN Committee on the Elimination of Discrimination against Women on the Rights of Rural Women, among others).

The right to Free, Prior and Informed Consent of indigenous peoples, farmers and local communities is a critical aspect that needs to be guaranteed in all decisions concerning DSI.

3) Regarding the types and extent of uses of DSI on PGRFA, such as: characterization; breeding and genetic improvement; conservation; identification of PGRFA,

FIAN considers that the same rules applied to PGRFA need to apply to DSI. In combination with biotechnologies, DSI allows to create new varieties, which can be protected by intellectual property

rights, in particular patents. FIAN further consider that DSI needs to be considered in the context of patents on gene sequences. The scope of such patents includes PGRFA that contain the concerned genetic information, or express its function. This applies also to PGRFA, which are not the result of the patented invention, but of essentially biological processes and/or the selection by farmers and indigenous peoples. These patents prohibit farmers and indigenous peoples to use PGRFA that contain patented traits, or subjects such use to the payment of licensing fees. This restrict the rights of farmers and indigenous peoples have under the ITPGRFA and international human rights law. These patents further impede the continuous adaptation of PGRFA to changing conditions (in particular in the context of climate change), and have adverse impacts on the conservation of biodiversity, one of the ITPGRFA's objectives.

#### 4) Regarding the relevance of DSI on PGRFA for food security and nutrition,

FIAN considers that the opportunities and challenges of DSI on PGRFA for the realization of the human right to food and nutrition need to be carefully assessed. From a human rights perspective, it is important to note that farmers and indigenous peoples, who provide more than 75 % of the food that is consumed in the world and are rights holders under the abovementioned treaties and human rights instruments, are not the ones using digital genetic information. As described above, the capacity of these groups to produce food is, however, severely limited if the scope of patents on such information includes PGRFA that are the result of selection by farmers and indigenous peoples, and which contain the patented trait. As such, these patents are a threat for food security and nutrition. Such patents extend the control over food production and food systems by business enterprises, whose primary interest is of economic nature, and not food security and nutrition. The negative impacts on biodiversity of patents on digital genetic information, and of industrial agriculture, also adversely affect the diversity of diets and nutrition.

Research and innovations, including technological innovations such as DSI, may create benefits for the realization of the right to food and nutrition. However, they must be embedded in regulatory frameworks and safeguards, which ensure that science and knowledge production serves the public interest and well-being, instead of particular interests that are geared towards financial gains. Science and technology are embedded in existing power relations and therefore need to be subject to social control, through public governance institutions that can oversee, regulate and orient the research agenda towards the public interest and well-being, based on democratic processes and transparency. Thorough, independent assessments of the impacts of DSI and other technologies are a critical aspect in this context, in particular regarding the impacts on human rights and biodiversity.

DSI, in combination with patents directly undermine key provisions of the ITPGRFA, the CBD and the Nagoya Protocol, as well as international human rights law, including regarding the right to food and nutrition; farmers' rights; the fair and equitable sharing of benefits arising from the use of PGRFA; as well as obligations on the free, prior and informed consent of indigenous peoples and farmers regarding access to PGRFA and traditional knowledge. Therefore, the ITPGRFA and its Parties are required to put in place adequate and effective regulations on the use of digitalized genetic information. One key element is to prevent biopiracy through DSI and related patents, by including a clause into the Standard Material Transfer Agreement (SMTA), which prohibits the beneficiary of a PGRFA from the Multilateral System from filing any intellectual property or other rights over these PGRFA, including digital genetic information.

Moreover, the ITPGRFA's Global Information System should control the uses of DSI, in line with its role to connect all existing open data systems of gene banks worldwide.