

# Characterisation of the digital divide and assessment of the impact of the use and non-use of digital tools in the Ivorian cocoa sector

Martin NOTARO<sup>1</sup>

Moussa Bamba<sup>2</sup>, Adassé Chiapo<sup>3</sup>, Dominique Koua<sup>4</sup>

<sup>1</sup>*Cirad*

<sup>2</sup>*ESA/INP-HB Dpt FOREN*

<sup>3</sup>*ESA/INP-HB Dpt Agroéconomie*

<sup>4</sup>*ESA/INP-HB Dpt ARA*

## ABSTRACT

Digital tools have changed our daily lives, both in our personal and professional environment, over the last few decades. This is also the true for the agricultural sector, especially in the North where these uses and their relevance are documented and studied. On the other hand, in countries where agriculture is not subsidised and where farm incomes are low, few studies have looked into the use or non-use of digital tools and their impacts on the various actors in the agricultural sector. To address this shortcoming, we conducted a study to characterise the different uses of information and communication technologies (ICTs) among the different actors in the cocoa production chain in Côte d'Ivoire. This work makes it possible to evaluate the level of the digital divide that exists at the inter- and intra-actor category level and to understand the socio-eco-geographical determinants of this divide. In addition, a qualitative analysis of the impact of the use and non-use of ICTs allowed us to determine under what conditions ICTs have a beneficial effect on the well-being and living conditions of agricultural households. Our results clearly indicate a significant digital divide between the farmer population and the actors who gravitate around them. In other words, there is a digital data gap between those who produce the data, i.e. the farmers, and those who use it. Indeed, less than 5% of cocoa farmers use digital tools such as online payment services to sell their cocoa or agricultural messaging services to know the weather and the selling prices of agricultural products. In contrast, the other entities that structure the upstream part of the sector use many useful ICTs to optimise the management of their activities and thus maximise their profits. Focus groups were used to assess the positive and negative impacts of the emergence of digital tools on farm households. Participatory work between the various actors in the cocoa sector, digital entrepreneurs and policy makers has highlighted original digital development orientations. These should lead to the emergence of digital tools that are more relevant because more inclusive and more useful than those that exist today.

**Keywords:** digital divide, cocoa sector, ICTs