

Communication Factors Associated with the Creation of Productive Assets among Internally Displaced Persons in Sanmatenga Province

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Abstract

The security and food crises that Burkina Faso has been facing for several years have had repercussions on the living conditions of the population. Faced with this situation, the World Food Programme (WFP) is working to strengthen the resilience of vulnerable populations through the Food Assistance Program for the Creation of Productive Assets (3A). The purpose of this study was to analyze the communication factors that influence the creation of productive assets among internally displaced persons in the Centre-Nord region of Burkina Faso. The study took place in villages in three communes in the province of Sanmatenga. An individual questionnaire to collect data was administered to a sample of 319 beneficiaries based on the Le Maux formula. Two software programs were used for the analyses, namely SPSS for statistical analyses and STATA for econometric analyses. The results of the analyses revealed that more than half of the beneficiaries (76.40%) have created productive assets with a dominance of women (60.60%). The types of productive assets created are CES/DRS structures (Zai (92.14%), stone barriers (77.99%), half-moons (88.36%), composting (71.38%); hydro-agricultural developments (school gardens (9.43%), and market gardening perimeters (11.95%), boulis (25.47%). Membership in a farmers' organization, prior knowledge, and the existence of a framework for interaction between hosts and IDPs positively influence the creation of productive assets, while labor contributes negatively. The methods of communication are individual interviews (12.89%) and focus groups (38.36%), with the use of the telephone as the channel of dissemination by the majority of beneficiaries (57.23%). Five factors influence the creation of productive assets by beneficiaries: membership in a peas-

ant organization, previous knowledge of beneficiaries, relative advantages of productive assets, labor, and the existence of exchange frameworks between hosts and IDPs. Thus, the implementation of appropriate measures by various actors on these variables will lead to an improvement in the level of communication and, consequently, the resilience of vulnerable populations in relation to food insecurity.

Keywords

Communication Factors, Productive Worker, Internally Displaced Person, Adoption, Burkina Faso

1. Introduction

Burkina Faso's economy is mainly based on agriculture and mineral exports. Burkinabe agriculture is primarily subsistence, rainfed, and extensive. Since 2015, the country has been facing a security crisis marked by terrorist attacks. The insecurity has led to massive population displacement from affected areas in a progressively increasing manner [1]. The number of internally displaced persons (IDPs) rose by 13.68% between March 2022 and March 2023, from 1,814,283 to 2,062,534 [2]. Indeed, populations in affected areas are forced to flee their communities, leaving behind significant resources such as granaries, livestock, and especially arable land. As a result, these populations are exposed to heightened vulnerability and food insecurity. Facing this humanitarian emergency, the Burkinabe government is deploying, with the support of its partners, efforts to meet the needs of IDPs. Thus, with the aim of providing sustainable solutions to food insecurity or strengthening the resilience of these vulnerable people, WFP has initiated a Food Assistance for Asset Creation (FFA) program. A productive asset is defined as a stock of natural, human, financial, or social resources that can be acquired, developed, or transferred and can generate flows, income, and stocks [3]. As part of WFP activities, the FFA program based on asset creation aims to improve water collection and conservation, soil water conservation and erosion control, support agricultural production, manage harvests and support markets, support livestock, develop fish farming, and introduce improved stoves [4]. In this study, productive assets are defined as structures obtained with WFP support that generate income or an increase in value over time in order to enhance the resilience of vulnerable populations.

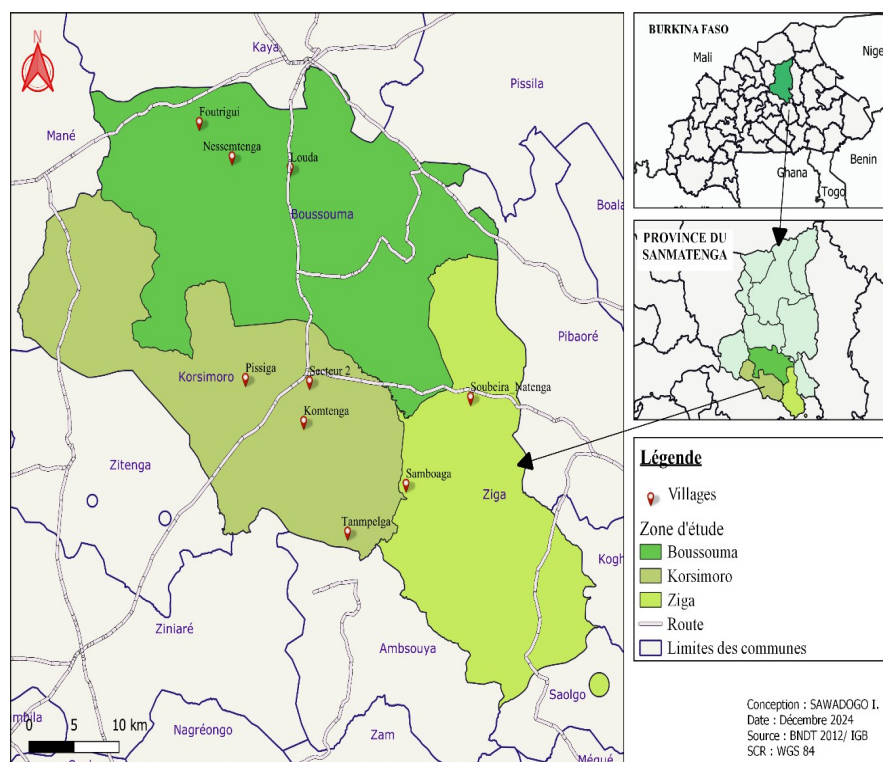
However, the success of a program depends on good communication between the actors responsible for its implementation. Communication is a tool of social and political influence because it promotes participation and social change through methods and instruments of interpersonal communication, community media, and modern information technologies [5] [6]. According to [7], it is a type of communication that represents the process through which populations stop being recipients of development interventions coming from outside and become the main

actors in their own development. Consequently, very little information exists regarding the close link between communication determinants and these development interventions, leaving relevant questions unanswered. The overall objective was to analyze the communication factors influencing the creation of productive assets among internally displaced persons in the Sanmatenga province in Burkina Faso.

2. Materials and Methods

2.1. Presentation of the Study Area

This study was conducted in the Sanmatenga province, located in the Centre-North region. The Centre-North region is bordered to the north by the Sahel region, to the south by the Central Plateau and Centre-East regions, to the east by the East region, and to the west by the North region (**Figure 1**). It covers an area of 19,508 km², defined within a rectangle with geographic coordinates between parallels 12°40' and 14° North (N) and meridians 0°15' and 25° West longitude (W) [8].



2.2. Study Methods

2.2.1. Sampling

A two-level stratified purposive sampling was carried out, the first level being the selection of villages and the second level the selection of FFA program beneficiaries. The FFA program is implemented in 69 villages in the Sanmatenga province, distributed among the communes of Boussouma (23 villages), Korsimoro (14 villages),

Kaya (18 villages), and Ziga (14 villages). Thus, in three communes of Sanmatenga province, villages with a high number of host and IDP beneficiaries (ranging from 108 to 489 beneficiaries), being accessible from a security standpoint, and having a participatory community planning (PCP) process with a minimum duration of two years were chosen for the study. In total, nine (9) villages out of sixty-nine (69) were selected for our study according to well-considered criteria, notably the number of beneficiaries, accessibility, and the duration of the participatory community planning. Regarding the selection of surveyed individuals, it was based on two criteria: being a beneficiary (hosts as well as IDPs) of food assistance and residing in the villages targeted by the study. Once in the villages, beneficiaries were surveyed using the snowball sampling method that involves identifying participants who meet the study criteria and asking them to refer others with similar traits or experiences. It is relevant in this study since traditional sampling methods are impractical due to difficulties accessing the target population. Indeed, many recipients of aid or assistance consider themselves poor and are often reluctant. The use of this method allowed for a total of 319 beneficiaries of the FFA program to be surveyed (Table 1).

Table 1. Sample size by selected villages and communes.

Communes	Villages	Number of Beneficiaries	Number of Beneficiaries Surveyed
Boussouma	Louda	200	28
	Foutrigui	447	55
	Nesemtenga	489	60
	Komtenga	316	39
Korsimoro	Pissiga	186	24
	Secteur 2	173	40
	Tanmpelga	225	28
Ziga	Samboaga	108	13
	Soubeira_Natenga	262	32
	Total	2406	319

2.2.2. Data Collection Instruments

A questionnaire was used to collect data from participants in the FFA program in the study area. The study questionnaire was composed of three main sections. The first section focused on the socio-economic characteristics of the beneficiaries in terms of age, gender, education level, marital and residential status, household size, and places of origin and reception. The second section dealt with the identification of productive assets created by the beneficiaries. The final section of the questionnaire concerned the characteristics of the communication system implemented in the process of creating productive assets. The questionnaire was de-

signed on the digital platform KoboToolbox and deployed on the KoboCollect application to facilitate data collection on smartphones.

2.3. Data Processing and Analysis

The data were exported to the Microsoft Excel 2016 spreadsheet to create a database. Two types of analyses were carried out: descriptive analyses (counts, percentages, means, standard deviation, etc.) and econometric analyses using SPSS software. Descriptive statistics are used to summarize the data on the sociodemographic and economic characteristics of IDPs. The logistic regression model was used to define the relationship between the variables that characterize communication and the creation of productive assets. It aims to specify the behavior of producers regarding the creation of productive assets by identifying the factors that influence their adoption, in the form of a probability.

The binary logistic regression model, or Logit, was chosen for the following reasons:

- 1) The qualitative and dichotomous nature of the dependent variable, namely, whether or not productive assets are created;
- 2) This model allows identifying the factors associated with a phenomenon by determining those that best predict the model [9];
- 3) It has been used in several studies on the adoption of agricultural innovations [10].

The decision to adopt an innovation occurs only when the combined effect of the factors reaches a value at which the decision-maker agrees to use or adopt the innovation. Before deciding, the producer compares the cost of acquiring the technology with the gain they can achieve by adopting the technology. The cost and gain are private information held by the producer. We consider a variable that can take into account the private information held by the producer. Such a variable is referred to as a latent variable and is continuous.

Let Y be the latent variable representing the producer's decision.

$$Y = \beta X_i + \varepsilon_i \quad (2)$$

with:

β : the vector of parameters to be estimated;

X_i : represents the explanatory variables;

ε_i : error terms.

We have the following cases:

$$Si \begin{cases} Y^* > 0 \text{ so the producer adopts the technology, therefore } y_i = 1 \\ Y^* \leq 0 \text{ so the producer does not adopt the technology } y_i = 0 \end{cases} \quad (3)$$

Let's consider the case where the producer adopts. Then the probability p is given by $p(y_i = 1)$ means $p(\hat{Y}^* > 0) = p(\hat{\beta}'X_i + \varepsilon_i > 0)$.

Thus:

$$p(\varepsilon_i > -\hat{\beta}'X_i) = F(\hat{\beta}'X_i) \quad (4)$$

We assume that the errors ε_i are independent and identically distributed and follow the logistic distribution. The logistic modeling of y as a function of p explanatory variables (X_1, X_2, \dots, X_p) and $p + 1$ parameters to estimate $(\beta_0, \beta_1, \beta_2, \dots, \beta_p)$ is:

$$p(y_1 = 1 / X_1 = x_1, X_2 = x_2, \dots, X_p = x_p) \tag{5}$$

From (4), the logistic link function becomes:

$$\text{logit}(y = 1 / X_i = x_i) = \beta_0 + \sum_{i=1}^p \beta_i x_i, \quad i = \overline{1, n} \tag{6}$$

By introducing the error term, we obtain the following econometric model:

$$\text{logit}(y = 1 / X_i = x_i, i = \overline{1, n}) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_p x_p + \varepsilon_i \tag{7}$$

2.4. Specification of the Empirical Model

An econometric analysis using a logistic regression model makes it possible to determine the factors influencing the adoption of productive assets by IDPs. In this study, we hypothesize that the sociodemographic and economic variables of the IDPs, the characteristics of the productive assets, as well as the communication system, influence the adoption of productive assets. The adoption of the creation of productive assets is modeled here as a choice between two alternatives: to adopt (1) or not to adopt (0). The variables used in the model of productive asset adoption by IDPs in the Central-North region are recorded in **Table 2**. Thus, the empirical model is presented as follows:

$$\begin{aligned} \text{CREAAP} = & \beta_0 + \beta_1 \text{AGE} + \beta_2 \text{SEX} + \beta_3 \text{EDUC} + \beta_4 \text{ACTPR} + \beta_5 \text{EXP} \\ & + \beta_6 \text{RESID} + \beta_7 \text{ACTIVE} + \beta_8 \text{ORGA} + \beta_9 \text{TERRE} + \beta_{10} \text{VULGA} \\ & + \beta_{11} \text{AVANTAG} + \beta_{12} \text{TYPE} + \beta_{13} \text{COUR} + \beta_{14} \text{KNOWLEG} \\ & + \beta_{15} \text{ACTOR} + \beta_{16} \text{AGENT} + \beta_{17} \text{METHOD} + \beta_{18} \text{CANAL} \\ & + \beta_{19} \text{IMPLIC} + \beta_{20} \text{ECHANG} + \varepsilon_i \end{aligned} \tag{8}$$

Table 2. Description of explanatory variables.

N°	Variables	Code	Items	Expected Sign
Explained Variable				
	Creation of productive assets	CREAAP	0 = Non 1 = Oui	
Explanatory Variables				
Sociodemographic and Economic Characteristics				
1	Age	AGE	0 = 45 years and over 1 = Under 45 years old	+
2	Gender	SEX	0 = Female 1 = Male	+

Continued

3	Level of education	EDUC	0 = Uneducated 1 = Educated	+
4	Main activity	MAINAC	0 = Other activities 1 = Agricultural activities	+
5	Experience	EXP	0 = Less than 5 years 1 = More than 5 years	+
6	Residence status	RESID	0 = Host 1 = PDI	-
7	Household asset proportion	ACTIVE	0 = Less than 50% 1 = More than 50%	+
8	Member of a farmers' organization	FARM_ORG	0 = No 1 = Yes	+
9	Access to land	LAND	1 = Yes 0 = No	+
10	Extension service monitoring	EXTEN	1 = Yes 0 = No	+
Characteristics of Productive Assets				
11	Advantages of productive assets	ADVANTAG	0 = No 1 = Yes	+
12	Type of productive assets	TYPE	0 = Individual 1 = Collective	-
13	Cost of producing productive assets	COST	0 = Weak 1 = High	-
14	Prior knowledge about productive assets in the environment	KNOWLEG	0 = No 1 = Yes	+
Communication System				
15	Actors conveying information	ACTOR	0 = Non-local actors 1 = Local actors	+
16	Satisfaction with extension agents	AGENTS	0 = No 1 = Yes	+
17	Communication methods	METHOD	0 = Individual Interview and Focus Group 1 = Mass communication	-
18	Accessibility of information channels used	CANAL	0 = No 1 = Yes	+
19	Involvement of beneficiaries in the selection of productive assets	IMPLIC	1 = Yes 0 = No	+
20	Existence of a framework for exchange between hosts and IDPs	EXCHANG	1 = Yes 0 = No	+

3. Results

3.1. Characteristics of Beneficiaries

3.1.1. Distribution of Beneficiaries by Age and Gender

The average age of the beneficiaries is 45 years, with a high proportion of women at 60.60%. The distribution by age group and gender of the beneficiaries of food assistance for the creation of productive assets shows a high proportion of 41.80% for beneficiaries aged between 35 and 50 years (Figure 2).

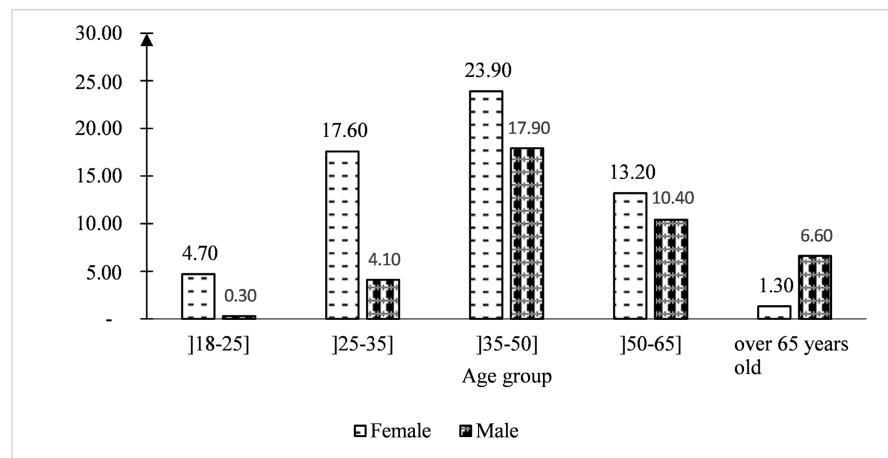


Figure 2. Distribution of beneficiaries by age and gender.

3.1.2. Education Level of the Beneficiaries

The distribution of beneficiaries according to the educational level of the study sample (Figure 3) shows that 79% of beneficiaries, including 54% women, have no formal education. Regarding the primary level, 8% of beneficiaries, including 4% women, are concerned; beneficiaries with a secondary level represent 3% of the sample, with 1% women. As for literate individuals, they represent 8% of the study sample, with women accounting for 2%.

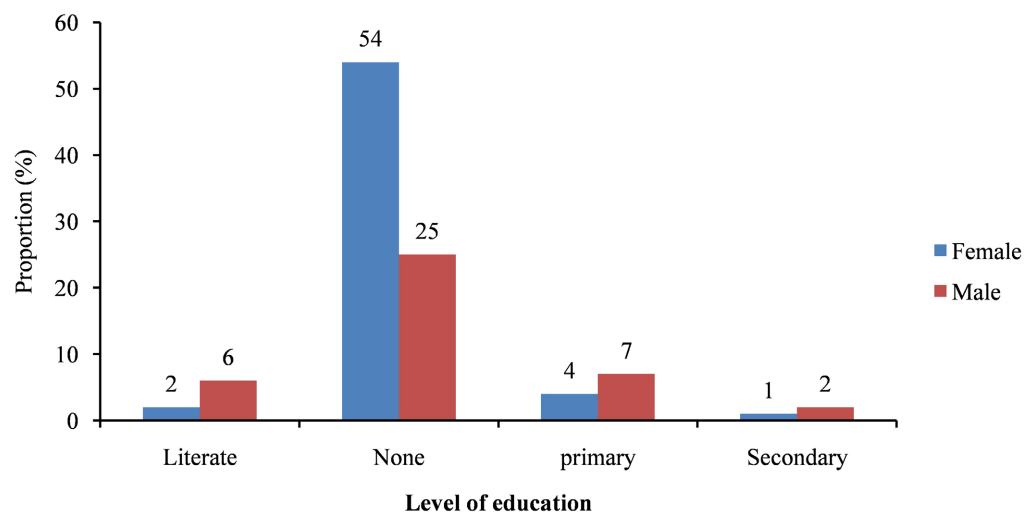


Figure 3. Distribution of beneficiaries by level of education.

3.1.3. Household Size

The distribution of the surveyed sample according to household size is illustrated in **Figure 4**. Thus, 92.46% of households have more than 5 people. Among these households, there is a notably higher proportion, with 40.57% of households having between 5 and 10 people.

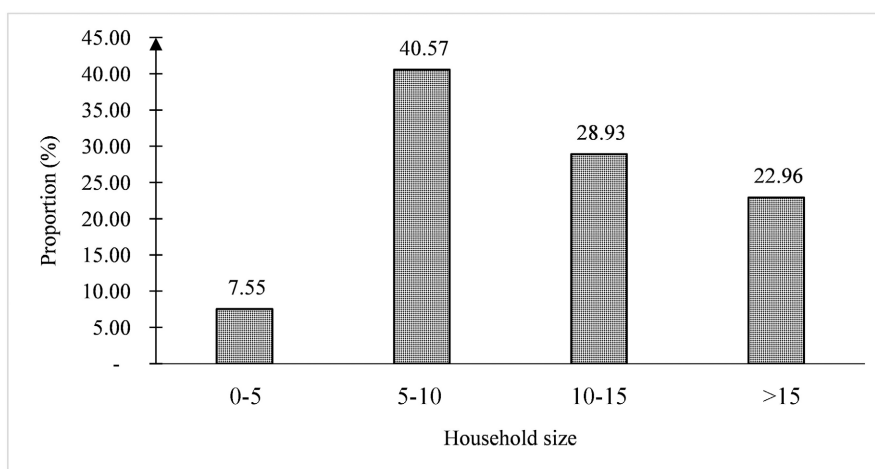


Figure 4. Distribution by household size.

3.2. Organizational and Institutional Characteristics

At the organizational level, the survey results show that 41.51% of respondents are members of a farmer organization. These farmer organizations are mainly cooperatives operating in the field of crop and livestock production. Regarding access to agricultural extension services, all surveyed FFA beneficiaries (100%) stated that they had benefited from extension service provisions. These services are mainly provided by state structures responsible for agro-sylvo-pastoral production, which primarily use direct exchanges (for awareness-raising), community relay training, guided visits, and the establishment of demonstration plots as extension tools.

3.3. Characteristics of Productive Assets

Productive assets are achievements obtained with the support of the WFP in order to increase the resilience of vulnerable populations. Thus, 76.4% of the study population reports having created a variety of productive assets both individually and within the community.

3.3.1. Types of Productive Assets Created

1) Water and Soil Conservation Works/Soil Defense and Restoration

Soil and water conservation works/soil defense and restoration (CES/DRS) are technologies used for the sustainable management of land and water. The results shown in **Figure 5** illustrate the different CES/DRS works that have been implemented by the beneficiaries. First, zai pits were carried out by 92.14% of the beneficiaries; next, half-moons were created by 88.36% of respondents; and finally,

stone lines were implemented by the majority, that is, 77.99% of the beneficiaries surveyed. There is also gully treatment, in which 55.66% of the beneficiaries participated. Half-moons and zaï pits are highly valued by the beneficiaries as an innovation that helps reduce the impact of droughts on crops.

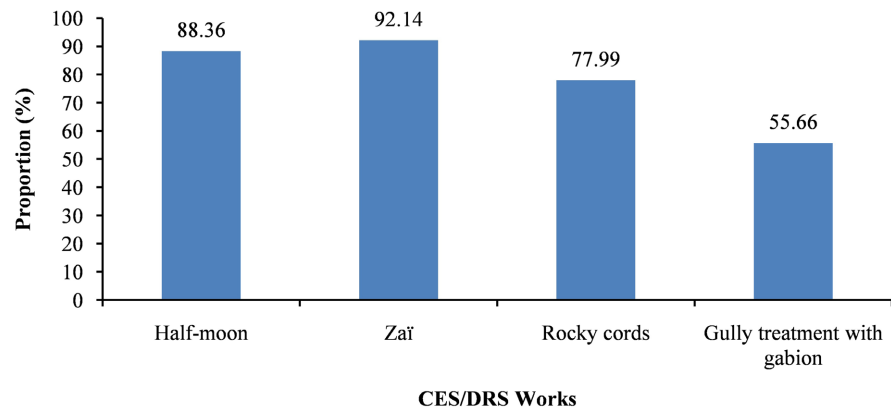


Figure 5. CES/DRS works created by the beneficiaries.

2) Hydro-Agricultural Developments

Hydro-agricultural developments were carried out to enable agricultural production as part of the 3A program. These include market garden areas cultivated by 11.95% of the surveyed beneficiaries, as well as school gardens cultivated by 9.43% of the surveyed beneficiaries. Other hydro-agricultural developments include dug-out ponds or small reservoirs. Indeed, to improve access to water resources, these ponds were created to store rainwater during the rainy season. This water is used for market gardening, watering animals, and composting in the various villages. Thus, the survey of producers shows that 25.47% of beneficiaries participated in the creation of these ponds as part of the 3A program.

3) Composting

Composting is carried out to amend degraded soils. It appears that the majority of surveyed beneficiaries (71.38%) chose this technology to improve the productivity of the CES/DRS structures implemented.

3.3.2. Benefits of Created Productive Assets

The creation of productive assets provides benefits to households according to beneficiaries of the 3A program (**Figure 6**). Thus, 37.11% of respondents stated that the creation of productive assets led to an increase in their income. All beneficiaries (100%) gained access to food through the distribution of supplies and also through the crops harvested. Regarding education, 7.55% of beneficiaries were able to enroll their children in school thanks to the income accumulated from the creation of productive assets. The vast majority, 88.99%, of surveyed beneficiaries now have access to water thanks to the wells that were built. Access to agricultural inputs through the income generated by the creation of productive assets is a benefit perceived by only 4.40% of the surveyed beneficiaries. And finally, all benefi-

ciaries (100%) reported noticing an improvement in soil fertility. In addition to these main benefits, there is also an improvement in mobility through crossing structures and an enhancement of knowledge through learning about various technologies for reclaiming degraded lands.

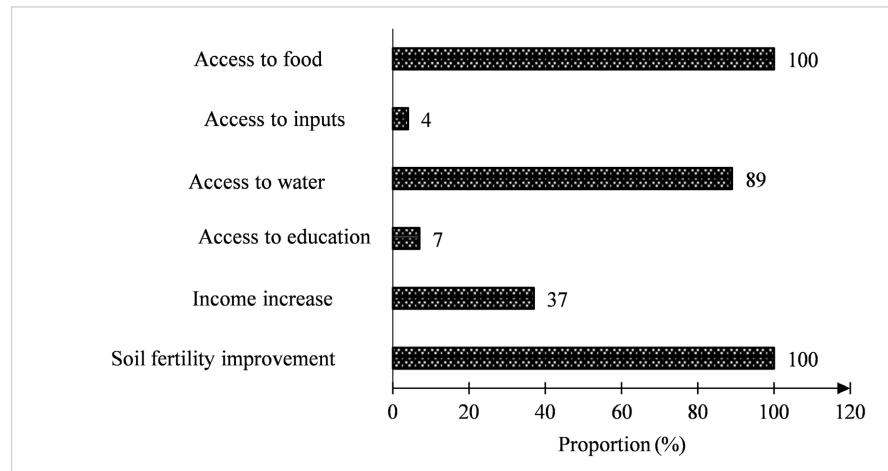


Figure 6. Advantages of productive assets.

3.3.3. Beneficiaries' Perception of Productive Assets

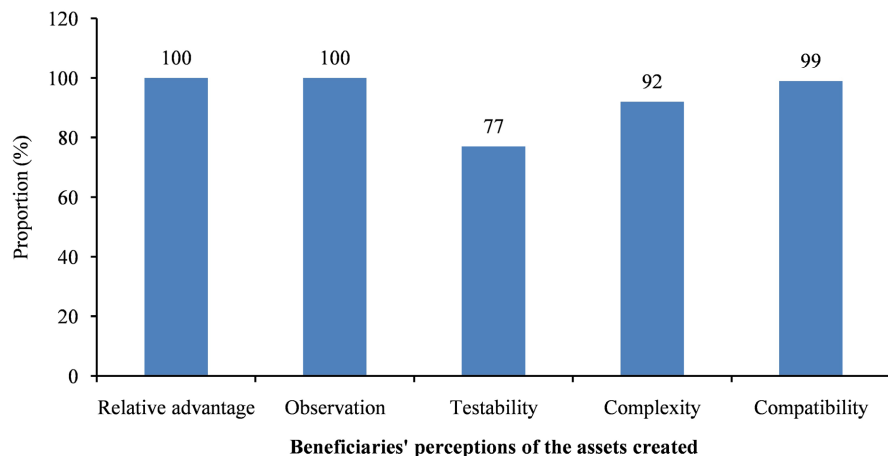


Figure 7. Beneficiaries' perception of the assets created.

The perception of the beneficiaries is evaluated according to the characteristics of the different productive assets, considered as innovations. According to the results in **Figure 7**, all beneficiaries of the productive assets (100%) recognize the importance of the productive assets and the visibility of their effects in their agricultural production activities. Furthermore, these productive assets are compatible with values, social norms, and traditional practices according to 99.37% of the beneficiaries. In addition, nearly half (47.17%) of the respondents already had prior knowledge of these created productive assets. These assets are also mostly (77.36%) accessible because they are relatively less expensive. However, the vast

majority (92.14%) find their implementation complex, as it requires a significant but insufficient workforce; as well as due to the strenuous nature of the work and the risk of accidents.

3.4. Characteristics of the Communication System and Creation of Productive Assets

3.4.1. Communication Methods

Through this study, an inventory of the different communication methods used between the actors and the beneficiaries in the context of creating productive assets was made. Indeed, the actors, who are a team composed of WFP staff, partners from technical services, and activity implementation personnel, communicate with either all the beneficiaries or a small group of beneficiaries in order to exchange and transmit information about productive asset creation activities. In this regard, several communication methods are used by the actors to disseminate innovations to the program 3A beneficiaries. Mainly, two communication methods, namely individual interviews and focus groups, are used by stakeholders to interact with nearly half, or 48.43%, of the beneficiaries surveyed. For 38.36% of the beneficiaries, only one communication method, namely, focus groups, is used by the stakeholders for interactions. Individual interviews are used by the stakeholders to interact with 12.89% of the beneficiaries surveyed (Figure 8).

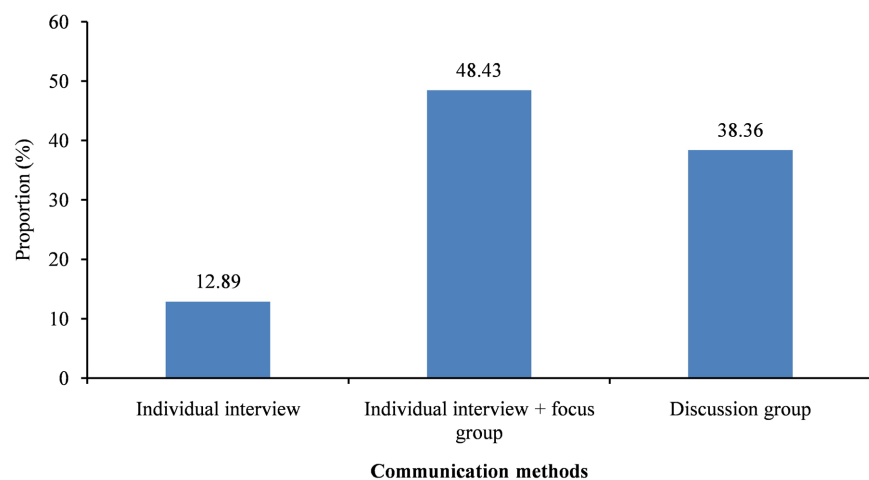


Figure 8. Communication methods.

3.4.2. Communication Channels Used

Once information is issued by an implementing structure (WFP, technical services, operational partners) during an exchange, it must be conveyed to all beneficiaries through various channels by community leaders (CVD, COGES). Phone calls are considered the most commonly used channel for relaying information, reaching 57.23% of beneficiaries, while 10.06% of beneficiaries receive information during public announcers' visits (Figure 9). As for the media, notably radio and social networks, they are underutilized, as only 0.63% of beneficiaries re-

ceive information through radio, and 0.31% of beneficiaries are informed via social networks, especially WhatsApp.

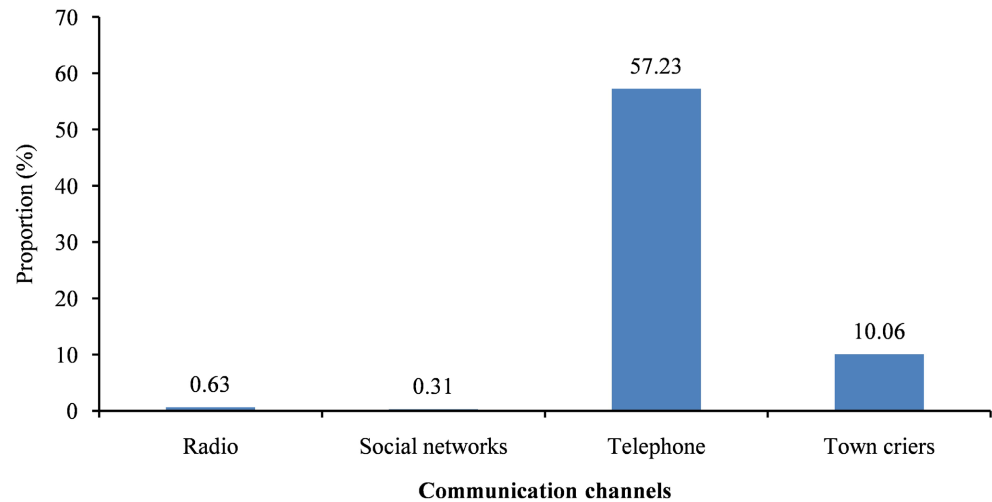


Figure 9. Communication channels used.

3.4.3. Communication between Beneficiary Categories

The implementation of the 3A program involves not only host communities but also internally displaced persons (IDPs). Thus, frameworks for exchanges take place between these two categories of beneficiaries. The results of our study showed that 45.60% of exchanges between hosts and IDPs occur through periodic meetings organized within the program’s activities. Exchanges also exist between hosts and IDPs through family ties; indeed, 11.95% of beneficiaries reported the existence of family relationships between hosts and IDPs, 9.75% maintain friendships, and 11.32% are neighbors. There are also joint cooperatives for carrying out productive asset creation activities, which serve as a meeting and exchange place for 1.26% of the beneficiaries (**Figure 10**).

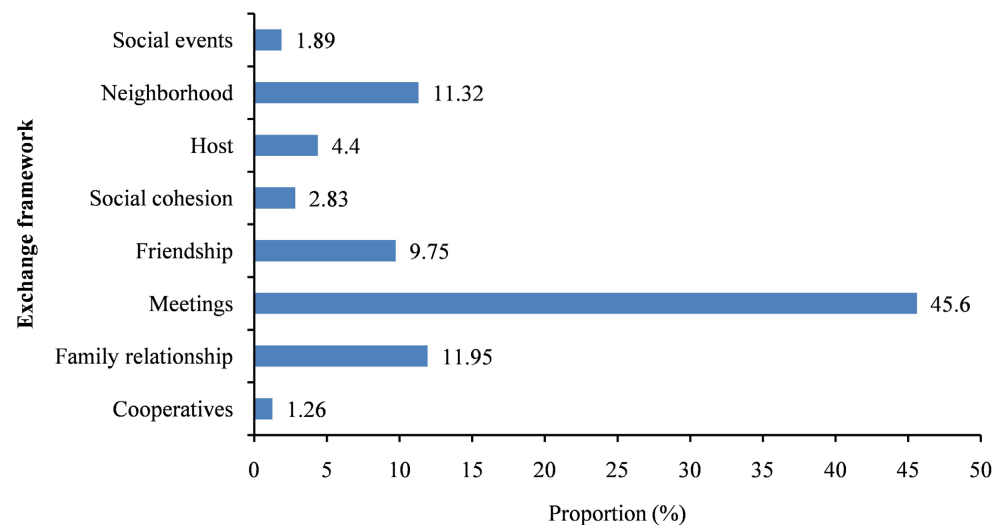


Figure 10. Host-PDI exchange framework.

3.5. Communication Factors Affecting the Creation of Productive Assets

The results from the estimation of the logit regression model on communication factors explaining the creation of productive assets are presented in **Table 3**. The analysis of the results shows that the model is overall significant at the 5% level. The analysis of the results from the estimation model of communication factors affecting the creation of productive assets shows that the following variables: membership in a farmers' organization, prior knowledge of assets, and the existence of a host/IDP exchange framework are significant at the 1% level, while the existence of relative advantage and labor are significant at the 5% level. Variables with a positive coefficient, in particular belonging to a farmers' organization, relative advantage, prior knowledge, and the existence of a host/IDP exchange framework, positively influence beneficiaries' creation of productive assets. In contrast, the labor variable, with a negative coefficient, has the opposite effect.

Table 3. Factors affecting the creation of productive assets.

CREAAP	Coefficients	Standard Error	Z	P > Z	Confidence Interval	
ORGA	1.28	0.41	3.09	0.00***	0.47	2.09
ADVANTAG	2.53	1.21	2.09	0.04**	0.16	4.91
KNOWLEG	4.19	0.68	6.14	0.00***	2.86	5.53
ACTIVE	-3.76	0.59	-6.33	0.00***	-4.92	-2.59
ECHANG	1.41	0.39	3.59	0.00***	0.64	2.18
CONSTANTE	-2.68	1.26	-2.13	0.03**	-5.14	-0.21

Note: **Significant at 0.05; ***Significant at 0.01.

The model equation is therefore written as:

$$\text{CREAAP} = -2.68 + 1.27\text{ORGA} + 2.53\text{AVATAG} + 4.19\text{KNOWLEG} - 3.76\text{ACTIVE} + 1.41\text{EXCHSNG}$$

4. Discussion

4.1. Characterization of Created Productive Assets

In the nine surveyed villages, almost all the beneficiaries (76.40%) have created a variety of productive assets. This can be explained by the fact that the populations in this region face soil depletion, irregular rainfall, and the presence of large areas of bare and degraded land, resulting in a shortage of arable land. These situations lead to a continuous decline in yields, making it difficult to meet food needs. Among the assets created are the establishment of sustainable land management structures and hydro-agricultural developments. First, the sustainable land management works, including CES/DRS structures, are carried out by the beneficiaries of the FFA program to cope with declining agricultural yields. Indeed, the Central North region is characterized by severe degradation of arable land and highly ir-

regular and insufficient rainfall, which does not exceed 750 mm of water per year [11]. CES/DRS techniques, such as zaï pits, half-moons, and stone lines, are an effective alternative to increase soil fertility and improve the structure of degraded soils. Indeed, CES/DRS techniques promote water infiltration and sedimentation, and allow the trapping of herbaceous seeds, thereby increasing yields. These results are supported by [12], who found that zaï and stone bund arrangements act as traps for seeds and create favorable conditions for germination. Additionally, thanks to these techniques, an increase in producers' yields can be observed. Next, the "bouli," which is an infrastructure used to collect runoff water, has generated satisfaction among all the beneficiaries. This productive asset facilitates access to water for market gardening activities, watering animals, and even for making bricks. Thanks to the water from the bouli, beneficiaries can easily carry out composting. The bouli, as a productive asset, provides an opportunity for beneficiaries to grow crops during the dry season and also serves as a meeting place that promotes social cohesion among the population. Finally, the development of vegetable-growing areas provides a source of income and personal fulfillment for the beneficiaries, especially women. This asset allows women to stay occupied during both the dry and rainy seasons, be independent, and contribute to family expenses [13]. The low proportion of beneficiaries who expressed doubts about the benefits of productive assets can be explained by the rainfall variations that occurred; this group of beneficiaries states that the sudden stop of rains during the flowering/heading of crops was the cause of the poor yields they experienced. Thus, data from [14] show that the number of rainy days in 2022 in the Centre-North region ranged between 25 and 50 days with significant irregularity, confirming the study's findings. As for the crossing structures, they help limit the advancement of erosion on arable land and facilitate the population's mobility. Accessibility in terms of cost and labor of productive assets is very decisive in the choice to create productive assets. On the one hand, the higher the cost of implementing an innovation, the lower its adoption rate will be. In this study, the cost of implementing productive assets is considered affordable by most beneficiaries. However, for a minority of beneficiaries, the high cost of equipment, the insufficiency of equipment, or simply the lack of equipment is a factor that negatively influenced the creation of productive assets [15]. On the other hand, several surveyed beneficiaries mention a shortage of labor, others talk about the difficulty of the work (especially in stone masonry, where transporting the stones is a major challenge), and also the risks of accidents, which are not negligible.

4.2. Communication System Used for the Creation of Productive Assets

The communication system developed in productive asset creation activities is considered satisfactory by the surveyed beneficiaries and has had no impact on their creation of productive assets. Some are undecided between individual interviews and focus groups. The predominance of focus groups is justified by the fact that they allow beneficiaries to express their views publicly, which can be con-

firmed or disputed by others; in addition, they enable the participation of a large number of beneficiaries at once. These results are similar to those of [16], which showed that the focus group method has the ability to facilitate spontaneous but focused exchanges, is a flexible method, and places particular importance on the participation of the people concerned in defining their realities and developing solutions tailored to their needs. The small minority of beneficiaries who engaged with the stakeholders through individual interviews stated that they feel free to discuss topics they consider sensitive and can speak more confidently and in detail without fearing their peers' reactions [17].

Regarding the communication channels used to relay information among beneficiaries, it should be noted that the telephone and visits are the most commonly used by most actors to convey information. According to the beneficiaries, these are the simplest and most accessible channels to use. Indeed, the telephone is a channel that, on the one hand, is used to transmit information over any distance. On the other hand, technical services also use the phone to provide extension advice to beneficiaries through phone calls or demonstration videos of techniques or results. Additionally, visits, particularly guided visits in community fields, allow actors, especially beneficiaries, to observe the performance of the technologies used. They also provide an opportunity for participants to share their experiences and to advise each other on the best ways to adopt the techniques being taught or proven. They also provide an opportunity for participants to share their experiences and to advise each other on the best ways to adopt the techniques being taught or proven. Some surveyed beneficiaries prefer public criers over phone calls and visits. This is explained by the instability of mobile phone networks, and for some beneficiaries, visits occur when they are absent; whereas public criers move through different neighborhoods to deliver information, so regardless of their location, the information reaches them. Based on these results, organizations and development agencies such as the WFP, which operate through national technical services, should strengthen the capacity of the staff in these services by funding training sessions on communication methods that beneficiaries find comfortable, such as focus groups, individual interviews, telephone, etc., in order to improve the design and implementation of future programs.

4.3. Factors Affecting the Creation of Productive Assets

The results of the econometric analyses revealed five main factors that could influence the creation of productive assets by the surveyed beneficiaries. First, belonging to a farmers' organization allows individuals to benefit from the successes and failures of others, as well as from training sessions and awareness campaigns, compared to non-members. This factor increases the probability of creating productive assets [18]. Indeed, beneficiaries are aware that the application of CES/DRS techniques such as stone lines, zaï pits, and half-moons is an alternative for combating the degradation of natural resources. These techniques also allow producers to improve their agricultural yields, which helps enhance their standard of liv-

ing, fight poverty, and ensures that future generations inherit land where agricultural production is possible [19]. All of this justifies the significant and positive influence of relative advantages on the likelihood of creating productive assets. Furthermore, peer teaching could be more effective and influential in sharing knowledge and encouraging the adoption of new practices, making it essential to value traditional knowledge and skills. Thus, beneficiaries who already had a minimum of prior knowledge about productive assets influence others through their positive experiences. This explains their positive and significant impact on the variable of productive asset creation [20] [21]. Additionally, labor is very important because some productive assets, such as stone cordons, require a certain amount of physical strength. Therefore, if labor is insufficient, it will negatively impact the creation of productive assets. The decision whether or not to create productive assets must be subject to an analysis in terms of cost, labor availability, and the resulting benefits, as in most cases, labor costs outweigh the benefits. These findings are similar to those of [22], who showed that when the labor required to implement an innovation is abundant and must be paid for, the likelihood of adoption is low because the producer may be discouraged by the labor cost. Additionally, households with a large number of agricultural assets easily create productive assets, which aligns with the results of [23], stating that farms with more labor are more likely to adopt soil conservation measures, as their implementation (stone lines and zaï pits) requires significant labor mobilization. This could justify the negative influence of the labor force on the creation of productive assets in terms of insufficient use of labor due to the difficulty of the work, making labor expensive. Finally, the regularity of exchanges between the hosts and the IDPs promotes the integration of the latter into their host city. It also increases the level of experience sharing between hosts and IDPs. Thus, the IDPs are open to the creation of productive assets because they benefit from plots of land and also participate in community activities that allow them to meet their food needs and contribute to strengthening social cohesion.

5. Conclusion

The security situation prevailing in Burkina Faso for several years has led to a massive displacement of populations to areas where conditions are better. In response to this situation, the FFA program implemented by WFP in the Centre-North region for the benefit of vulnerable populations is considered a means of enabling them to be resilient. The general objective of this study was to analyze the communication factors that affect the creation of productive assets among internally displaced persons in the Sanmatenga province. The results of this study showed that various productive assets were created, such as half-moons, zaï, stone bunds, the rehabilitation of waterholes, the creation of school gardens and vegetable plots, and compost production, mainly by women. These created productive assets provided numerous benefits to the beneficiaries. Thus, the beneficiaries were able to increase their yields and consequently their incomes. They gained ac-

cess to water to carry out their gardening and other activities. They also recovered some degraded lands. Thanks to the productive assets created, the children of some beneficiaries were able to access education. As for the communication methods developed for the creation of productive assets, it appears that the beneficiaries are very satisfied with the exchanges with the other actors involved in productive asset creation activities. Indeed, discussion groups are the most used for exchanges with beneficiaries due to the participation opportunities they offer and their flexibility. The communication channels used are considered accessible to everyone. The exchanges between hosts and IDPs have allowed for the integration of IDPs. This framework of exchange promotes social cohesion between different ethnic groups. For sociodemographic factors such as membership in a farmers' organization, the benefits provided by productive assets, prior knowledge, labor, and the exchange framework between hosts and IDPs are factors that significantly influence the variable of productive asset creation.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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