

Innovation platforms in agriculture: what is the situation in Algeria?

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Abstract:

Innovation priorities, needs and capacities in the agriculture industries remains the current trend in Algeria as a secure window of efficiency and economic growth. This paper aims to explore in what extent innovation platform could participate in improving agricultural product marketing or getting funds in Algeria. Multi-stakeholder collaboration is key to achieving agricultural development outcomes in Algeria. Field data was collected by a variety of means. The study was based on discussion groups organized with the innovation platform members in each category involved to clarify the local context and the platform structure. According to the regression results, joint planning of activities by value chain stakeholders contributed significantly (level of 1%) to improving agricultural production. The platform members interviewed confirmed the role of the innovation platforms in planning their activities and through an exchange of information, planning and solving shared problems together.

Keywords: Innovation platform; agriculture; product making; proximity

JEL Classification Codes : O31, R12, Q13

1. INTRODUCTION

Innovation platforms (IPs) have gained significant attention globally as mechanisms for fostering agricultural development. This is particularly true in low- and middle-income countries, where agricultural systems often face challenges such as limited access to markets, inadequate infrastructure, financial constraints, and climate change impacts (Schut, Klerkx, Kamanda, Sartas, & Leeuwis, 2019). These platforms are designed to bring together a diverse range of stakeholders, including farmers, researchers, policymakers, financial institutions, non-governmental organizations, and private sector actors, to collaborate on solving complex agricultural challenges (Nyikahadzoi, et al., 2012). By promoting cross-sectoral dialogue, knowledge sharing, and joint action, IPs create a space where stakeholders can work together to identify solutions, implement innovations, and collectively drive agricultural transformation. This multi-stakeholder approach is seen as crucial for addressing the systemic barriers that hinder agricultural development, as it encourages collaboration between those who might otherwise be working in isolation.

The concept of IPs has been widely promoted in the literature as an effective way to facilitate technological and institutional change. Through these platforms, stakeholders can share knowledge, technologies, and resources, which leads to enhanced capacity building, improved decision-making, and the creation of new, context-specific solutions to local agricultural problems (Dror, Cadilhon, Schut, Misiko, & Maheshwari, 2016). IPs also offer a flexible approach to agricultural development, as they allow for the integration of both traditional knowledge and new, cutting-edge innovations. As a result, IPs have become a key strategy for fostering agricultural growth, particularly in settings where conventional approaches to development have proven less effective.

The existing literature mainly focusses on providing step-by-step advice on how to implement and facilitate innovation platforms for technological or institutional change. Such implementation and facilitation advice can be found in (Adekunle, Fatunbi, & Jones, 2010; Makini, et al., 2013; Brouwer & Woodhill, 2016; Francis, Mytelka, Huis, & Röling, 2016; Nederlof & Pyburn, 2012). Unfortunately, these innovation platforms in

agricultural research presents three critical ex-ante reflections on when and for what purpose innovation platforms are an appropriate mechanism for achieving development outcomes especially in Algeria?

Talking of what several Algerian platform in the agriculture, since 2022, are emerging targeting six principle objectives: 1) financing of agricultural projects; 2) distribution of agricultural inputs including advice and assistance, agricultural alerts, new information as (Agrichem platform-leader in Algeria) ; 3) Training and mentoring (Agriculture Sector Support Program - Programme Programme d'Appui au Secteur de l'Agriculture "PASA"), 4) networking and funding (Platform for the Office for the Development of Industrial Agriculture in Saharan Lands - Office de Développement de l'Agriculture en terres sahariennes "ODAS") ; 5) localization platform for agricultural products for direct sale ; 6) accelerator platform for innovative challenge solution (Soolvit with Algeria Startup Challenge). These objectives need to be taken into account to consider IP performance from beneficiaries' perspective (Somé, 2013). The success of these platforms hinges not only on the services they provide but also on how well they are tailored to meet the needs of the local agricultural community, ensuring that the intended outcomes such as increased productivity, market access, and capacity building are realized.

The research presented in this paper addresses this gap by exploring the effectiveness of these innovation platforms in achieving their intended development outcomes in Algeria. It critically examines the role of IPs in improving agricultural production, fostering collaboration among stakeholders, and promoting knowledge and skill development among farmers and other key players in the agricultural value chain. Through this examination, the paper provides insights into the key factors that determine the success or failure of IPs in the Algerian context, with a focus on understanding when and why these platforms are an appropriate mechanism for achieving desired development outcomes.

The structure of the article is as follows: the next section provides a review of the existing literature on innovation platforms, followed by a detailed discussion of the Algerian context and the six principal objectives of the emerging platforms. Subsequently, the article presents the research

methodology, followed by an analysis of the data collected from platform beneficiaries. Finally, the article concludes with a discussion of the key findings, implications for policy and practice, and suggestions for future research.

2. Literature review

The central challenge in Algerian agriculture (Hergoun, 2024) today is transitioning from the generation of new agricultural technologies to the application of innovations that directly address the constraints of agricultural production across the value chains. The agricultural sector Algeria faces numerous challenges, including low productivity, limited access to markets, poor infrastructure, inadequate financing, and the impacts of climate change. As such, the question of how to effectively integrate technological advancements into practical, sustainable solutions for farmers remains a key concern (Bouزيد, Boudedja, Cheriet, Bouchetara, & Mellal, 2020). In this context, Innovation Platforms (IPs) have emerged as crucial mechanisms for facilitating collaboration and promoting innovation (Dahinine, 2024) among a wide array of stakeholders in the agricultural sector (Dror, Cadilhon, Schut, Misiko, & Maheshwari, 2016).

IPs have gained prominence as a central element in many Agricultural Research for Development (AR4D) programs (Nyikahadzoi, et al., 2012), where they act as vehicles for fostering multi-stakeholder collaboration aimed at solving complex agricultural challenges. These platforms serve as spaces for bringing together diverse actors such as farmers, researchers, extension services, policymakers, financial institutions, agro-input suppliers, and private sector actors to address shared challenges and co-create solutions (Tenywa, et al., 2011). Through the active engagement of these stakeholders, IPs can facilitate the development of innovations that are not only scientifically sound but also socially and economically relevant to the communities they aim to serve. However, the success of IPs depends largely on the active participation and collaboration of stakeholders who must work together toward common objectives (Ngaboyisonga, et al., 2014).

A critical feature of IPs is the role of stakeholders. Without the active participation of stakeholders, an innovation platform cannot function or

achieve its intended goals. The selection of stakeholders is guided by their potential contributions to the platform's objectives, their willingness to engage, and the benefits they stand to gain from participating in the platform. The stakeholders in an IP typically include farmers and producers, researchers, banks and financial institutions, agro-input dealers, processors, private business owners, consumers, extension services, and policymakers (DC). Each of these stakeholders plays a distinct but complementary role in driving innovation and achieving agricultural development outcomes. The diagram in Fig. 1 illustrates the key stakeholders involved in agricultural development, highlighting their respective roles and contributions to the sector. Recognizing the importance of these stakeholders is crucial for fostering collaboration and ensuring sustainable growth in agriculture. For instance, farmers offer invaluable local knowledge and firsthand insights into the practical challenges they face in their daily operations. Researchers, by contrast, provide scientific expertise and innovative solutions, while financial institutions supply the necessary capital to scale successful agricultural innovations. Understanding these roles is essential for creating a thriving, sustainable agricultural ecosystem.

Fig. 1. Mapping Stakeholders in Agricultural Development



Source: Based on insights from the Literature Review

In contrast to traditional approaches where research outputs are handed down to farmers or other stakeholders without direct input or

feedback, IPs create an interactive, iterative process of innovation. This shift from a linear to a more collaborative, participatory model is a hallmark of IPs. Traditional research or extension systems often operate in isolation, delivering solutions that may not be contextually relevant or tailored to the needs of the stakeholders involved (Daane & Booth, 2016). In IPs, the interaction between stakeholders facilitates a deeper understanding of the needs, challenges, and opportunities at every stage of the agricultural value chain, enabling the co-creation of more appropriate and sustainable solutions (Muyombano & Espling, 2020)). The process is designed to ensure that innovations are not just theoretical but are grounded in the realities of agricultural production and consumption, ensuring that the outcomes are directly applicable to the local context.

The communication within an IP is not linear; instead, it is multidirectional, with stakeholders able to interact freely at various stages of the innovation process. This dynamic and flexible communication structure is vital for the success of IPs, as it enables real-time problem-solving and adaptation to changing circumstances. Stakeholders are encouraged to exchange information, discuss challenges, and share solutions, which creates an environment of continuous learning and adaptation (Tenywa, et al., 2011).

While much of the existing literature on IPs focuses on providing step-by-step guidance for implementing and facilitating innovation platforms, there remains a significant gap in understanding when and for what purpose IPs are most effective in achieving development outcomes. The literature often presents IPs as a panacea for addressing agricultural challenges without sufficiently addressing the contextual factors that influence their success (Makini, et al., 2013). The literature emphasizes the importance of understanding the specific needs and challenges of the local agricultural context when designing and implementing IPs. For instance, the needs of smallholder farmers in sub-Saharan Africa may differ significantly from those in other regions, and as such, the objectives and design of IPs must be adapted accordingly to maximize their effectiveness (Francis, Mytelka, Huis, & Röling, 2016).

The objective of this study is to contribute to the existing body of scientific literature by addressing the critical question of when and for what purpose IPs are an appropriate mechanism for achieving agricultural development outcomes. This research aims to provide a more nuanced understanding of the role of IPs in agricultural development, particularly in the context of African agriculture. By exploring the specific conditions under which IPs can be most effective, this study seeks to generate more realistic expectations about what IPs can and cannot achieve in AR4D initiatives. The implementation of IPs often requires significant investments of time, energy, and resources, and it is essential for development practitioners, researchers, funding agencies, and farmer unions to carefully assess whether IPs are the most appropriate mechanism to achieve their objectives (Nederlof & Pyburn, 2012). This study is therefore designed to provide decision support for stakeholders involved in agricultural development, helping them to determine whether IPs can help them achieve their goals and contribute to the sustainable transformation of agricultural systems (Djaballah, 2020).

3. Research methodology

This study aims to validate the research hypothesis that the IPs mentioned, Agrichem, PASA, ODAS, and Soolvit—positively impact beneficiaries in improving agricultural product marketing and accessing funding. To achieve this, a mixed-methods approach was employed, integrating both quantitative and qualitative data collection techniques to provide a comprehensive understanding of the platforms' impact on agricultural development.

The research was conducted over a six-month period from April to September 2022, with field surveys carried out during a one-month window from mid-May to mid-June. This period allowed for in-depth interaction with the beneficiaries of the selected IPs, providing ample time for data collection and analysis.

To capture the diverse experiences and perceptions of stakeholders, a questionnaire was developed, focusing on the beneficiaries' views regarding the effectiveness of the IPs in improving agricultural marketing and facilitating access to financial resources. The questionnaire was structured

around a five-point Likert scale, where respondents indicated their level of agreement with a series of statements about the IPs' performance. The Likert scale used was as follows: 1 = Totally Disagree, 2 = Disagree, 3 = Undecided, 4 = Agree, 5 = Strongly Agree.

The specific IPs under study—Agrichem, PASA, ODAS, and Soolvit—were selected based on their prominence and diverse objectives in the agricultural sector. These platforms represent different facets of agricultural innovation, such as financing agricultural projects, distributing inputs, offering training, and fostering networking opportunities. Table 1 provides a summary of the key statements used to measure beneficiaries' perceptions of the IPs.

Table 1. Statements used to quantify the perceptions and attitudes of the 48 IP members and 4 moderators using the Likert scale

Statement	Number of respondents				Likert scale				
	Agrichem	PASA	ODAS	Soolvit	1	2	3	4	5
My plan and animal production has increased	12	12	12	12					
My total quantity of products sold annually is interesting	12	12	12	12					
My knowledge of my activity has improved in the past two years	12	12	12	12					
My production system has improved in the past two years	12	12	12	12					
The innovation platform has had a positive impact on my production activity	12	12	12	12					
My meat and/or milk production per animal is increasing	12	12	12	12					
My plant production per unit of surface area is increasing	12	12	12	12					

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The joint planning of activities with my partners in the value chain has improved in the past two years	12	12	12	12					
The innovation platform has had a positive impact on planning my activity with my partners	12	12	12	12					
To what extent do you agree that the improvement in plant and animal production is closely linked to the existence of the innovation platform in this community?	1	1	1	1					
To what extent do you agree that the improvement in plant and animal production is closely linked to the existence of joint planning of activities between platform members throughout the value chain?	1	1	1	1					

Source : Adopted questionnaire from Cadilhon (2013)

In addition to the questionnaire, qualitative data was gathered through organized discussion groups with innovation platform members and moderators. These discussions were crucial for clarifying the local context in which the platforms operate and for understanding the structure and dynamics of the platforms. The discussions also helped to contextualize the findings from the questionnaires, allowing the researchers to better understand the nuances behind the beneficiaries' perceptions.

The qualitative approach provided deeper insights into how platform members viewed their roles, the challenges they faced, and the perceived benefits of participation in the IPs. By interacting with key stakeholders—such as platform coordinators, moderators, and beneficiaries—the

researchers were able to explore the reasons behind the beneficiaries' perceptions and gather richer data on the platforms' impact on agricultural practices and market access.

The questionnaire design was informed by the framework developed by (Cadilhon, Téo, & Adane-Mariami, 2013), which categorizes IP performance into three main areas: structure, management, and outcomes. These sections formed the basis of the questionnaire, with questions designed to assess each area in relation to the specific platforms. The structure section addressed the organizational setup and functioning of the IPs; the management section focused on how the platforms were operated and how resources were allocated; and the performance section evaluated the outcomes achieved by the IPs, particularly in terms of agricultural production and market access.

Due to resource limitations, the study opted to rely on subjective perceptions of agricultural production performance rather than objective measures such as direct production data or financial outcomes. This decision was made in consideration of the challenges associated with implementing a rigorous sampling and analysis protocol for crop and livestock production results, which would have required significant resources and time.

Subjective perceptions are commonly used in agricultural research, particularly when assessing the effectiveness of interventions where direct measurement may be impractical. The perception-based approach allows for capturing the beneficiaries' experiences and attitudes, providing a valuable proxy for understanding the broader impacts of the innovation platforms. The subjective nature of the data does not undermine its reliability, as it reflects the lived experiences and personal assessments of the stakeholders directly involved in the platforms. This approach is supported by existing literature, which demonstrates the validity of perception-based measures in evaluating the success of agricultural development programs (Ngaboyisonga, et al., 2014).

To triangulate the data, the study compared the quantitative results from the 48 beneficiaries (across the four IPs) who completed the Likert-scale questionnaire with the qualitative insights gained from the surveys

and discussion groups. The results from both data sources showed a strong convergence in the beneficiaries' perceptions regarding the IPs' impact on improving agricultural production. Both the quantitative and qualitative findings indicated that the platforms were viewed positively in terms of their contributions to agricultural productivity, marketing, and financial access. This convergence strengthens the validity of the study's conclusions and provides a well-rounded assessment of the platforms' effectiveness.

To recapitulate, this study utilized a mixed-methods approach, combining quantitative data from Likert-scale questionnaires and qualitative insights from discussion groups to assess the impact of innovation platforms on agricultural production and market access. The subjective perception of beneficiaries was used to measure IP performance due to resource constraints, and the results indicated a strong alignment between quantitative and qualitative data. This methodology provides a comprehensive framework for evaluating the effectiveness of innovation platforms in agricultural development, offering valuable insights for future research and decision-making in the field.

4. Results and discussion

We followed the methodology proposed by (Teno, Cadilhon, & Some, 17-19 September, 2013) to reduce the number of variables describing joint planning and increase in agricultural production to a few main components (factor analysis). This led to the new aggregation for the various statements describing the "joint planning" and "agricultural production improvement" indicators, called "agricultural production improvement".

Then, the structural component of our model is constructed from the interviews with senior members of IP and moderators as follows: gender (Gender), age (Age), IP senior member (Senio_IP), level of education (High_ed), participation in IP meetings (Ptici_ip), main source of income (Prin_sr) and average income (R_year). Additionally, the income variable was incorporated into the model using the principal source of income in the form of a two-category variable: 1) agricultural activity and 2) non-agricultural activity. Two aspects of member attitude were used as independent variables in the regression: the variable from the factor analysis of the joint planning of activities between members in the sector

(Joint_P) and the ranking accorded to the statement “The agricultural extension officers generally provide information that is relevant to my needs and production calendar” (Inf_offic).

$$REG = a + bGender + bAge + bSenio_IP + bHigh_ed + bPtici_IP + bPrin_sr + bR_year + bJoint_P + bInf_offic + u$$

All the completion tests as shown in Table 2 (using SPSS) revealed that the data used for the above multiple regression model matched the linear regression hypotheses.

Table 2. Results from multiple regression analysis

Model Summary								
Model		R		R ²	adjusted R ²	Stand. Err.	Durbin-Watson	
1		.783 ^a		.545	.532	.71110321	2.001	
ANOVA ^a								
Model			Sum Squ.	Df	Aver. Squ.	F	Sig.	
1		Regression	25.97	8	2.433	6.322	.000 ^b	
		Residual	21.23	36	.501			
		Total	47.20	44				
Coefficient ^a								
Model		Non-stand. Coeff.		Stand. Coeff.	t	Sig.	Collinearity statistics	
		B	Std. error	Beta			Tolerance	VIF
(Constant)		.511	1.233		.470	.566		
Participation in IP meetings		.456	.141	.355	2.997	.004	.834	1.162
IP senior member		-.498	.277	-.177	1.977	.062	.901	1.101
Average annual income in DZA		.003	.001	.226	1.834	.077	.545	1.767
Main source of income		-.966	.492	-.264	2.114	.045	.593	1.426
Joint planning of activities with value chain parties		.377	.122	.366	3.227	.002	.822	1.543
Age		-.022	.014	-.155	1.397	.137	.677	1.322
Gender		.401	.320	.118	1.176	.294	.866	1.101

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Level of education	- .098	.277	-.030	-.887	.779	.366	2.557
The agricultural officers providing relevant information and production calendar	.233	.140	.147	1.366	.233	.604	1.640

a. Dependent variable: improvement in agricultural production

Source: Results from SPSS

These quantitative results of the regression analyses needed a triangulation lecture; a comparison and the search for synergies with the qualitative data collected in the field, mainly during the focus group in the four-target platform.

How can we answer the research question? The 12 key beneficiaries interviewed from each platform referred to the way in which the IPs have helped them manage their activity better in a more concerted manner through the training courses provided to them, such as techniques for accessing markets (penetration strategy), grouped selling (focused strategy), inventory credit system (warehouse receipt system). In the same way, through their various meetings, IPs have also introduced their members to new partners, such as micro-credit institutions, livestock and agricultural services, veterinary services and the IP members in other platforms. In this way, the IPs have demonstrated to their members the importance of maintaining links (networking) with all these partners and with each other (stakeholders' cartography). In other words, according to the regression results, joint planning of activities by value chain stakeholders contributed significantly (level of 1%) to improving agricultural production. The platform members interviewed confirmed the role of the innovation platforms in planning their activities and through an exchange of information, planning and solving shared problems together lying on proximity.

The research highlights the critical role that Innovation Platforms (IPs) play in transforming agricultural practices by promoting collaboration among key stakeholders. The findings indicate that these platforms are instrumental in improving agricultural productivity, as evidenced by the

positive impact of joint planning activities and stakeholder networking. One of the primary ways IPs facilitate progress is through targeted training, which equips participants with essential skills such as market penetration strategies, inventory credit systems, and grouped selling techniques. These skills enable farmers and other stakeholders to enhance their market access and optimize sales strategies, ultimately boosting agricultural outcomes.

Moreover, the IPs serve as a catalyst for creating valuable connections among stakeholders, facilitating introductions to key partners such as micro-credit institutions, veterinary services, and agricultural input providers. These connections are crucial in addressing the diverse needs of farmers, particularly in accessing financial resources and technical support. The networking opportunities fostered by the IPs help to break down silos within the agricultural sector, allowing for a more integrated and collaborative approach to problem-solving.

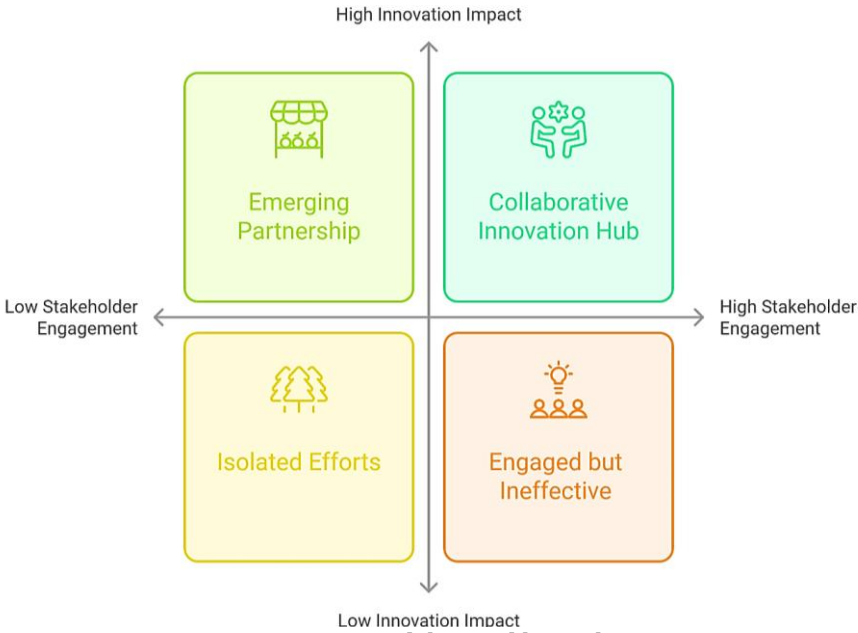
The process of joint planning is particularly significant in this context. By bringing together various stakeholders, including farmers, researchers, financial institutions, and policymakers, IPs enable a collective approach to identifying challenges and developing solutions. This collaborative process enhances the ability of stakeholders to share knowledge, resources, and expertise, which is essential for overcoming common barriers to agricultural development. The research underscores the importance of this collaboration in achieving sustained improvements in agricultural production.

Furthermore, the findings suggest that the proximity of stakeholders, both organizationally and geographically, plays a pivotal role in the success of the platforms. The close interaction among stakeholders fosters trust, facilitates communication, and allows for more efficient coordination of activities. This proximity also helps in aligning the goals and priorities of the various participants, ensuring that efforts are directed towards common objectives.

The regression results provide quantitative evidence of the positive impact of joint planning and collaboration on agricultural production. These results further emphasize the importance of fostering multi-stakeholder partnerships and maintaining strong networks within the agricultural sector.

As IPs continue to evolve, their ability to facilitate knowledge exchange, problem-solving, and partnership building will be crucial in driving long-term improvements in agricultural productivity and sustainability.

Fig.2. Driving Innovation Impact through Effective Stakeholder Engagement in Agriculture”

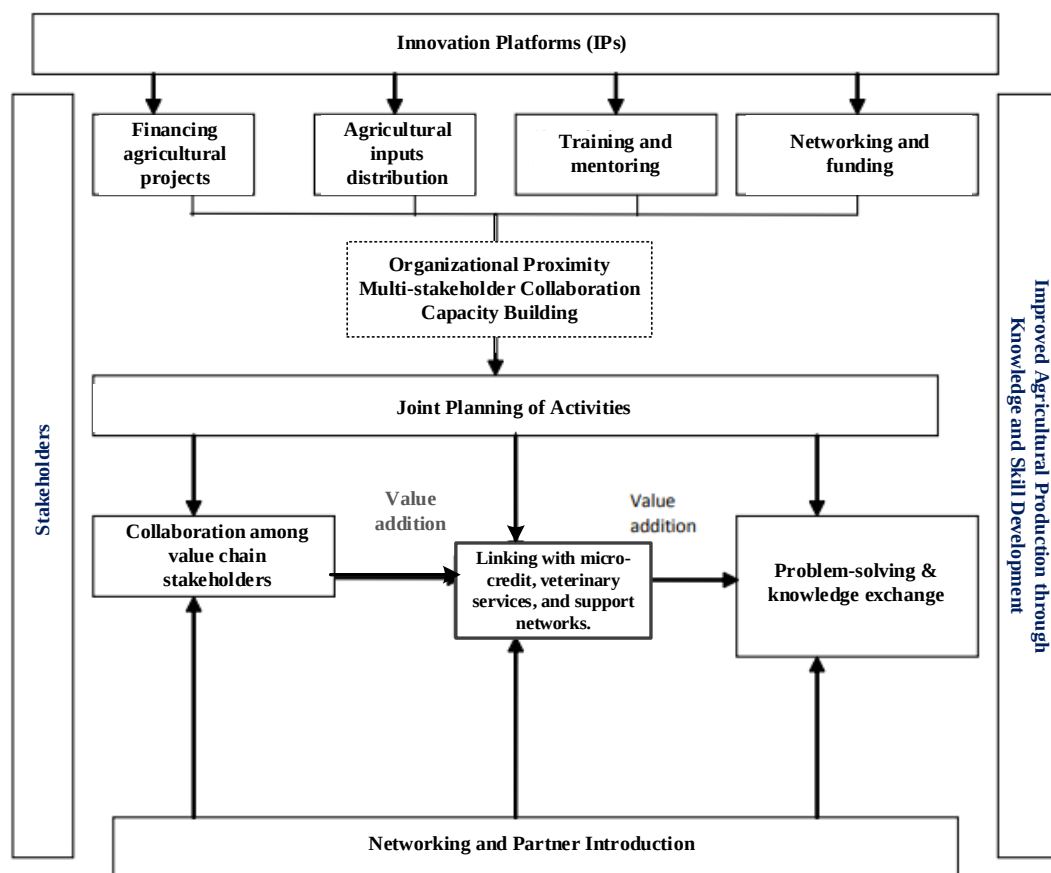


Source: Elaborated by authors

The matrix analysis underscores the varying levels of innovation impact and stakeholder engagement within agricultural initiatives, highlighting the critical need for strategic alignment to achieve optimal outcomes. While isolated efforts or initiatives with low innovation impact may provide limited short-term benefits, the greatest potential lies in fostering collaborative innovation ecosystems that combine high stakeholder engagement with significant innovation impact. Such ecosystems serve as dynamic platforms for knowledge exchange, problem-solving, and coordinated action, reinforcing the regression findings on the value of joint planning and collaboration. By prioritizing the transition toward these high-impact, collaborative frameworks, agricultural IPs can drive sustainable productivity gains while addressing complex challenges in the sector.

In conclusion, the research supports the idea that Innovation Platforms, through their collaborative and inclusive approach, are a powerful tool for enhancing agricultural productivity. By fostering joint planning, facilitating networking, and providing access to critical resources and training, IPs contribute to the overall success of agricultural initiatives. The evidence from this study suggests that scaling up such platforms could have significant positive impacts on the agricultural sector in Algeria and other similar contexts. This is further emphasized by the research framework presented, which stands as a key finding, illustrating the significant potential of Innovation Platforms in driving agricultural productivity.

Fig. 3. Agricole Innovation Platforms Research Framework



Source: Elaborated by authors

5. Conclusion

These results corroborate findings from other studies that identify Innovation Platforms (IPs) as an effective tool for supporting complex, multi-stakeholder systems aimed at developing agriculture and value chains in developing countries, such as Algeria. The evidence suggests that IPs are not only instrumental in enhancing agricultural productivity but also in fostering collaboration among stakeholders from diverse sectors. Furthermore, the IP meetings played a critical role in bringing members together, particularly at the local level, helping them focus on specific regions (villages, according to Algeria's geographic nomenclature). These gatherings facilitated villagers' access to various agricultural development services, significantly improving the social capital within the platform. This improvement, in turn, contributed directly to an increase in agricultural production, emphasizing the importance of building community cohesion and providing access to essential resources.

However, while the positive impact of IPs on agricultural development is evident, it is also essential for future research to examine the experiences of non-beneficiaries to gain a fuller understanding of the platform's broader effects. Such studies would help assess the extent to which IPs influence the activities of both beneficiaries and non-beneficiaries alike. Moreover, the short lifespan of these projects presents a challenge in evaluating long-term benefits and sustainability. It is crucial to consider how future IP initiatives can overcome these challenges and continue to provide lasting benefits. Project moderators have already encouraged IPs to integrate with existing institutions or those with a legal framework, aiming to ensure continuity beyond the project duration.

In addition, the findings offer valuable decision-support for development, research, and funding agencies, helping them determine whether and how IPs can contribute to achieving their goals. The study underscores a key point: if the IP approach is not well-suited to a specific context, or if the necessary enabling institutional conditions are lacking, then alternative, more cost- and time-effective strategies must be considered. This conclusion provides a clear incentive for agencies to carefully assess whether development outcomes can be achieved more

efficiently by leveraging existing platforms and networks, rather than creating new innovation platforms from scratch. This approach could enhance sustainability, maximize resources, and reduce redundancies, thus strengthening overall development efforts.

While this study provides valuable insights into the role of Innovation Platforms in agricultural development, it is not without limitations. One key limitation is the focus on a limited sample of beneficiaries, which may not fully represent the diversity of contexts within the agricultural sector in Algeria. Additionally, the short duration of the project restricts the ability to assess long-term impacts and sustainability. The study also primarily focuses on the perspectives of platform members, with less attention given to the broader community and non-beneficiaries. Future research should aim to address these gaps by expanding the sample size and adopting a longitudinal approach to better understand the long-term effects of IPs. Additionally, incorporating objective measures, such as production data or financial outcomes, would help validate and complement subjective assessments, ensuring a more comprehensive and robust evaluation of the platforms' long-term effectiveness. Furthermore, further exploration is needed to determine how IPs can be integrated with existing institutions and networks to ensure their scalability and sustainability in the long run.

6. Bibliography List:

- Adekunle, A. A., Fatunbi, A. O., & Jones, M. P. (2010). How to set up an Innovation Platform: A concept guide for the Sub-Saharan African Challenge Program (SSA CP). *Forum for Agricultural Research in Africa (FARA)*, (pp. 1-8). Accra; Ghana.
- Bouزيد, A., Boudedja, K., Cheriet, F., Bouchetara, M., & Mellal, A. (2020). Factors influencing the adoption of innovation in agriculture in Algeria. Case of two strategic crops: durum wheat and potato. *Cahiers Agricultures*, 29, 1-10.
- Brouwer, H., & Woodhill, J. (2016). *The MSP Guide: How to Design and Facilitate Multi-Stakeholder Partnerships* (éd. 2). (C. f. Wageningen UR, Éd.) Warwickshire, UK: The Netherlands, and Practical Action Publishing.
- Cadilhon, J., Téo, G., & Adane-Mariami, Z. (2013). Questionnaires et Données pour la Validation Empirique d'une Approche Conceptuelle

pour Evaluer l'Impact des Plateformes d'Innovation sur le Développement de Chaînes de Valeur Agro-alimentaires au Ghana et au Burkina Faso. ILRI, Nairobi.

- Daane, J., & Booth, R. (2016). Integrated agricultural research for development: lessons learnt and best practices. *Uganda Journal of Agricultural Sciences*, 9(1), 126-131.
- Dror, I., Cadilhon, J. J., Schut, M., Misiko, M., & Maheshwari, S. (2016). *Innovation platforms for agricultural development: Evaluating the mature innovation platforms landscape*. (I. Dror, J. J. Cadilhon, M. Schut, M. Misiko, & S. Maheshwari, Éds.) New York: Routledge.
- Francis, J. A., Mytelka, L., Huis, A. v., & Röling, N. (2016). *Innovation Systems: Towards Effective Strategies in Support of Smallholder Farmers*. (J. A. Francis, L. Mytelka, A. v. Huis, & N. Röling, Éds.) AJ Wageningen, The Netherlands: Technical Centre for Agricultural and Rural Cooperation.
- Hergoun, T. (2024). Evaluation of agricultural development policies and programs as a mechanism for achieving food security in Algeria. *Journal of Contemporary Business and Economic Studies*, 7(1), 82-98.
- ICARDA. (14–16 March, 2022). An integrated desert farming innovation platform to transform food, nutrition, and water security under climate change. *7th International Date Palm Conference*. Abu Dhabi, United Arab Emirates.
- Makini, F. W., Kamau, G. M., Makelo, M. N., Adekunle, W., Mburathi, G. K., Misiko, M., . . . Dixon. (2013). *Operational Field Guide for Developing and Managing Local Agricultural Innovation Platforms*. Kenya: Kenya Agricultural Research Institute .
- Muyombano, E., & Espling, M. (2020). Land use consolidation in Rwanda: The experiences of small-scale farmers in Musanze District, Northern Province. *Land Use Policy*, 99, 1-10.
- Nederlof, E. S., & Pyburn, R. (2012). *One Finger Cannot Lift a Rock: Facilitating Innovation Platforms to Trigger Institutional Change in West Africa*. Amsterdam: Royal Tropical Institute.
- Ngaboyisonga, C., Mugabo, J., Musana, B., Tenywa, M. M., Wanjiku, C., Mugabe, J., . . . Buruchara, R. A. (2014). Agricultural innovations that increase productivity and generate incomes: lessons on identification and testing processes in Rwandan agricultural innovation platforms.

Conference: Challenges and Opportunities for Agricultural Intensification of the Humid Highland Systems of Sub-Saharan Africa. Springer International Publishing Switzerland .

- Nyikahadzoi, K., Pali, P., Fatunbi, A. O., Olarinde, L. O., Njuki, J., & Adekunle, A. O. (2012). Stakeholder Participation in Innovation Platform and Implications for Integrated Agricultural Research for Development (IAR4D). *International Journal of Agriculture and Forestry*, 2(3), 92-100.
- Schut, M., Klerkx, L., Kamanda, J., Sartas, M., & Leeuwis, C. (2019). Innovation platforms: Synopsis of innovation platforms in agricultural research and development. Dans P. Ferranti, E. M. Berry, & J. Anderson (Éds.), *Encyclopedia of Food Security and Sustainability* (pp. 510–515). Elsevier.
- Somé, H. (. (2013). *Developing rainfed crop-livestock value chains through Innovation Platforms: experiences with rural communities in the Volta Basin; CPWF Volta Brief; CPWF*. Ouagadougou, Burkina Faso.
- Teno, G., Cadilhon, J., & Some, H. (17-19 September, 2013). Impact of Volta2 Innovation Platforms on Improvement and Increase of Crop and Livestock Production in Four Villages of Yatenga Province, Northern Burkina Faso; A presentation to the Volta Basin Development Challenge Final Scientific Workshop. *Volta Basin Development Challenge Final Scientific Workshop*, (pp. 1-10). Ouagadougou, Burkina Faso.
- Tenywa, M. M., Rao, K. P., Buruchara, R., Kashaia, I., Majaliwa, J. D., Tukahirwa, J. B., . . . Ngaboyisonga, C. (2011). Institutional innovations for building impact-oriented agricultural research, knowledge and development institutions. *Learning Publics Journal of Agriculture and Environmental Studies*, 2(1), 24-55.