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# RISK IDENTIFICATION AS A MEANS OF IMPROVING THE PERFORMANCE OF RURAL DEVELOPMENT PROJECTS IN CAMEROON

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## **RISK IDENTIFICATION AS A MEANS OF IMPROVING THE PERFORMANCE OF RURAL DEVELOPMENT PROJECTS IN CAMEROON**

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### **Abstract**

This paper concerning the influence of risks on rural development projects performance in Cameroon is based on a methodical approach to risk identification and mitigation. Its main objective is to contribute to the improvement of the performance of rural development projects. The study was conducted on three projects funded by various donors, through semi-structured interviews, document analysis, and observation. It identified twenty-two (22) major project risks, of which 68% are exogenous and 32% endogenous. Eleven (11) of them occur frequently; sixteen (16) have a significant impact on meeting deadlines; fourteen (14) greatly influence budget execution, and eleven (11) have a notable impact on the quality of the planned deliverables. The study reveals that risk management measures are generally implemented once they manifest and have already had a negative impact on the outcome chain. It also presents a risk criticality model that project teams can use to make management decisions. Furthermore, the study highlights the need to strengthen the risk management skills of project teams in order to ensure the performance of rural development projects.

**Keywords:** Rural development project, influence, project risk, performance, success.

## Introduction

To achieve its 2035 vision, the Cameroonian government established the National Development Strategy (NDS30) in 2020. NDS30 combines sectorial strategies, including rural development and the National Agricultural Investment Plan, to achieve the Millennium Development Goals. The government emphasized rural development as the essence of national development, thus promoting modernization while contributing to local development.

Cameroon relies on official development assistance (ODA) to implement its various development strategies thanks to multilateral and bilateral technical and financial partners (TFPs), which represent 17.37% and 5.35% of the ODA received, respectively. Between 2009 and 2018, 18 TFPs engaged in rural development, with 83 projects across the country. However, most rural development projects are not achieving their objectives, with urban poverty decreasing from 12.2% to 10.8% and rural poverty increasing from 55% to 59.5%.

According to estimates by the International Finance Corporation (IFC), one in two projects fails. Another notable aspect of the current management of rural development projects in Cameroon is the tendency for extensions, illustrating the inability of the project to achieve its objectives within the allotted time. The problems of managing development aid projects in developing countries are legion (Ika, 2011). Awe Baina et al. (2020) report a generally unsatisfactory performance of rural development projects in Cameroon. This underperformance is frequently attributed to insufficient consideration of project risks. Therefore, this study focuses on the influence of risks on the performance of rural development projects. Given this situation, it is appropriate to ask how project risks hinder the good performance of development projects in Cameroon. Two additional questions are added to this main question. What are the risks that could influence the management of development projects? What are their impacts on the expected outcomes of development projects? This article is structured around the following sections: introduction, methodology, results and discussions, and finally conclusion.

## Methods

The methodological approach of this study is based on literature review and participatory observation. The literature review formed the basic foundation for our various works, allowing not only to grasp the context and challenges of the Cameroonian rural sector, but also to acquire an in-depth understanding of performance evaluation, risk identification in development projects, as well as the main arguments of the authors who have put them into practice or studied them. As for participatory observation, it facilitated our immersion in the rural development project management sector in Cameroon to examine the behaviours, interactions and performance evaluation approaches used in this type of project. The probability sampling technique used allowed us to select the following three projects:

- PADFA financed by the International Fund for Agricultural Development (IFAD);
- PD-COBIE financed by the Islamic Development Bank (IDB);
- PCP-ACEFA funded by the French Development Agency (AFD).

In each of these projects, all individuals holding positions of responsibility (manager) were selected to constitute our sample size. These individuals included country project

managers, national coordinators, administrative and financial managers, component heads, and regional unit managers.

Based on the literature review, budget compliance, quality compliance, and deadline compliance constitute our three dependent variables that affect the performance of a development project (performance triangle). Poor scores on these three dependent variables within a development project negatively affect the results chain. However, our study identified several project risks (independent variables) that originate from the project's internal or external environment.

In doing so, by employing these two qualitative methods in the context of our research, we do not aim to manipulate these different variables, but rather to understand their interrelationship. The aim is to make a contribution to improving the performance of rural development projects in Cameroon, by suggesting a management approach that takes risks into account.

## **RESULTS**

### ***Evaluation of development projects' performance***

Organization theory provides the theoretical foundation for studies on the performance of development projects and programs. Initially, project management focused on time, cost, and scope, also known as the "iron triangle" (Jugdev & Müller, 2005). Current literature distinguishes project performance from project success due to evolving concepts. Baccarini's approach (as cited Khang & Mae, 2008) suggests that project performance can be assessed progressively throughout the project cycle phases, focusing on the quality of financial products generated and the achievement of expected outcomes. Project success is assessed at its end according to different criteria, based on its impact, sustainability, and acceptance by stakeholders and the development community (Khang & Mae, 2008).

a project's performance of is measured using various indicators, including quantitative (cost, time, quality) and qualitative (beneficiary satisfaction, social impact, sustainable development), which make it possible to monitor progress towards the set objectives and to evaluate its impact based on the target values contained in the results measurement framework (RMF).

A rural development project is a temporary initiative that combines financial, human and material resources to improve the economic, social or environmental well-being of rural populations (Saidou, 2015). It has been the main means of disseminating ODA in Africa since 1960. However, despite the proliferation of rural development projects in Africa, particularly in Cameroon, their performance remains mixed (Assontia Djoudji et al., 2022). Awe Baina et al. (2020) report that 70% of these projects have insufficient and unsatisfactory performance, while 30% have satisfactory and very satisfactory performance.

### ***Project risks, uncertainties and complexity: implicit characteristics of rural development projects***

According to Khan & Zahid (2013), development projects are generally low-maturity organizations, as their relatively new management systems fail to manage risks due to various constraints. For this reason, outsourcing, also known as "make do" (contracting),

is frequently used to execute most of the planned activities. This strategy aims to ensure institutional solidity and strengthen the skills of local actors in socio-economic development services. However, this approach creates uncertainty regarding the variability in the quality of services provided, due to the absence or unavailability of local expertise.

According to PMI (2017), project risk is "an uncertain event or condition whose occurrence would have a positive or negative effect on one or more project objectives, such as scope, schedule, or quality." For Wysocki (2014), uncertainty and risk are two inseparable concepts. The more complex a project, the higher its degree of uncertainty. Kreye & Balangalibun (2015) specify that the uncertainty surrounding a project's objectives is mainly associated with performance indicators (cost, time, or quality) and the variability of projections. Complexity can be defined as a system composed of many parts interacting in complicated ways, with tasks and relationships being major sources of complexity (Simon, 1965).

### ***Risk identification in Cameroonian rural development projects***

Project risk identification involves identifying and documenting all potential risks that could impact project performance. According to the Project Management Body of Knowledge (PMBOK), it is the second process of risk management, which helps understand threats and take appropriate mitigation measures.

The analysis of data from the field phase of our research enabled us to identify and classify twenty-two (22) main project risks according to Ray's (2015) risk typology. Their impacts on the project were also determined.

**Table 1**

*Risk classification according to Ray's typology*

<b>Endogenous Risks</b>	<b>Impact on the project</b>
Conflict between project team members	<ul style="list-style-type: none"> <li>- Decreased productivity;</li> <li>- Low morale;</li> <li>- Quality of work compromised;</li> <li>- Delays in execution;</li> <li>- Risk of departure of key members.</li> </ul>
Unexpected resignations of project members	<ul style="list-style-type: none"> <li>- Disruption of activities;</li> <li>- Loss of skills and knowledge;</li> <li>- Increased workload;</li> <li>- Additional recruitment costs;</li> <li>- Decreased team engagement.</li> </ul>
Malfunction of procurement procedures	<ul style="list-style-type: none"> <li>- Delays in the execution of activities;</li> <li>- Budget overrun;</li> <li>- Quality of supplies and services compromised;</li> <li>- Legal risks;</li> <li>- Loss of stakeholder confidence.</li> </ul>
Fraud and corruption within the project	<ul style="list-style-type: none"> <li>- Loss of financial resources;</li> <li>- Deterioration in the quality of deliverables;</li> <li>- Damage to reputation</li> <li>- Delays and legal complications;</li> <li>- Erosion of beneficiary confidence.</li> </ul>
Incompetence of some members of the project team	<ul style="list-style-type: none"> <li>- Decrease in the quality of deliverables;</li> <li>- Delays in execution;</li> </ul>

	<ul style="list-style-type: none"> <li>- increased workload;</li> <li>- Additional costs;</li> <li>- Deterioration of team cohesion.</li> </ul>
Poor management of payments by the project's administrative and financial department	<ul style="list-style-type: none"> <li>- Delays in the execution of activities;</li> <li>- Loss of confidence of suppliers;</li> <li>- Budget overrun;</li> <li>- Compliance issues;</li> <li>- Deterioration of team morale.</li> </ul>
Obsolescence of technical skills of beneficiary management staff	<ul style="list-style-type: none"> <li>- Decrease in the quality of supervision;</li> <li>- delays in carrying out activities;</li> <li>- Resistance to change;</li> <li>- Impact on the sustainability of results;</li> <li>- Additional training costs.</li> </ul>
<b>Exogenous Risk</b>	
Lack of support from the guardianship	<ul style="list-style-type: none"> <li>- Delays in execution;</li> <li>- Lack of resources;</li> <li>- Coordination difficulties;</li> <li>- Loss of credibility.</li> </ul>
Addition of activities not provided for in the PTBA resulting from the ratification of new agreements with other projects or institutions	<ul style="list-style-type: none"> <li>- Work overload;</li> <li>- Delays in execution;</li> <li>- Budget overrun;</li> <li>- Complexity of management;</li> <li>- Deterioration in the quality of results.</li> </ul>
Outbreak of a pandemic (coronavirus)	<ul style="list-style-type: none"> <li>- Delays in the execution of activities;</li> <li>- Logistical disruptions;</li> <li>- Increased costs;</li> <li>- Impact on team health;</li> <li>- Changes in beneficiary needs.</li> </ul>
Misuse of the purpose of project support by beneficiaries	<ul style="list-style-type: none"> <li>- Loss of resources;</li> <li>- Reduction of the impact of the project;</li> <li>- Conflicts with stakeholders;</li> <li>- Bad reputation;</li> <li>- Monitoring and evaluation difficulties.</li> </ul>
Low capacity to mobilize personal contributions by beneficiaries	<ul style="list-style-type: none"> <li>- Reduced efficiency;</li> <li>- Dependence on external resources;</li> <li>- Decrease in engagement;</li> <li>- Monitoring and evaluation difficulties;</li> <li>- Negative impact on sustainability.</li> </ul>
Poor mastery of the technical, administrative and financial procedures of the project by the stakeholders	<ul style="list-style-type: none"> <li>- Errors in the execution of activities;</li> <li>- Delays in deadlines;</li> <li>- Budget overruns;</li> <li>- Conflicts between stakeholders;</li> <li>- Impact on the sustainability of results.</li> </ul>
Inflation or volatility of input prices in the market	<ul style="list-style-type: none"> <li>- Budget overruns;</li> <li>- Delays in execution;</li> <li>- Reduction in quality;</li> <li>- Impact on sustainability.</li> </ul>

Insecurity in the project intervention areas	<ul style="list-style-type: none"> <li>- Delays in the execution of activities;</li> <li>- Team insecurity;</li> <li>- Decreased beneficiary engagement;</li> <li>- Logistical disruptions;</li> <li>- Degradation of the project's reputation.</li> </ul>
Slowness in providing financial resources to the project	<ul style="list-style-type: none"> <li>- Delays in the execution of activities;</li> <li>- Disruption of relationships with partners;</li> <li>- Budget overruns;</li> <li>- Impact on team morale;</li> <li>- Decreased quality of results.</li> </ul>
Poor execution of activities entrusted to external technical service providers for the implementation of the project	<ul style="list-style-type: none"> <li>- Decrease in the quality of deliverables;</li> <li>- Delays in project progress;</li> <li>- Budget overruns;</li> <li>- Impact on reputation;</li> <li>- Conflicts and tensions.</li> </ul>
Poor relationship between the project coordinator and the funder	<ul style="list-style-type: none"> <li>- Delays in funding;</li> <li>- Lack of support;</li> <li>- Communication difficulties;</li> <li>- Degradation of reputation;</li> <li>- Conflicts of priorities.</li> </ul>
Failure to comply with commitments of strategic partners in the execution of planned activities	<ul style="list-style-type: none"> <li>- Delays in the execution of activities;</li> <li>- Disruption of partnership relations;</li> <li>- Decreased quality of results</li> <li>- Budget overruns;</li> <li>- Sustainability of results.</li> </ul>
Delay in obtaining no objection notices	<ul style="list-style-type: none"> <li>- Delays in the execution of activities;</li> <li>- Budget disruption;</li> <li>- Decreased team motivation;</li> <li>- Damage to stakeholder relations;</li> <li>- Non-conformity of results or deliverables;</li> </ul>
Delays or difficulties in mobilizing counterpart funds	<ul style="list-style-type: none"> <li>- Delays in the execution of activities;</li> <li>- Budget disruption;</li> <li>- Decreased partner confidence;</li> <li>- Impact on the quality of results;</li> <li>- Increase in non-conformities.</li> </ul>
Drought or flooding in the project intervention areas	<ul style="list-style-type: none"> <li>- Disruption of agricultural activities;</li> <li>- Damage to infrastructure;</li> <li>- Food insecurity;</li> <li>- Delays in project execution.</li> </ul>

Source: Authors.

The study identifies 15 exogenous risks, while 7 are endogenous, indicating that projects are significantly impacted by exogenous risks. These risks are mainly related to project management, communication, ambiguity of objectives, and planning errors. 71% of endogenous risks are related to human resources, while 29% are related to procedures. Exogenous risks, also known as external risks, can have a negative impact on a project due to their unpredictable nature.

The identified risks were categorized according to the PMBOK classification: operational risks, short-term strategic risks and long-term strategic risks.

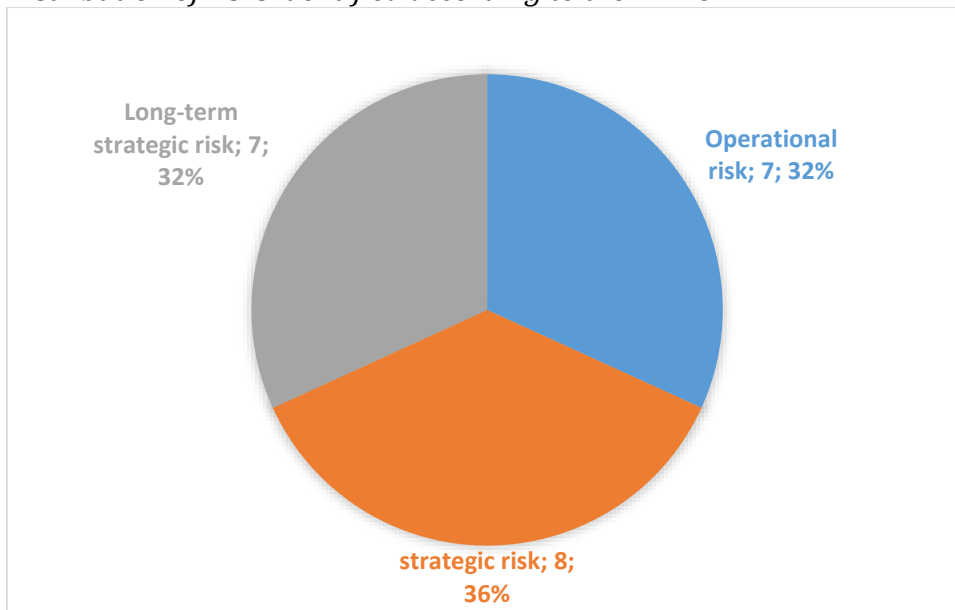
**Table 2***PMBOK risk classification*

<b>Category</b>	<b>Risk identified</b>
Operational risks	Conflict between project team members
	Unexpected resignations of project members
	Fraud and corruption within the project
	Delay in obtaining no objection notices
	Obsolescence of technical capacities of the beneficiaries' supervisory staff
	Incompetence of some members of the project team
	Poor relationship between the Project Coordinator and the Funder
Short-term strategic risks	Malfunction of procurement procedures
	Poor management of payments by the project's administrative and financial department
	Poor mastery of the technical, administrative and financial procedures of the project by the stakeholders
	Slowness in providing financial resources to the project
	Poor execution of activities entrusted to external technical service providers for the implementation of the project
	Delays or difficulties in mobilizing counterpart funds
	Failure to comply with commitments of strategic partners in the execution of planned activities
Addition of activities not provided for in the PTBA resulting from the ratification of new agreements with other projects or institutions	
Long-term strategic risks	Lack of support from the guardianship
	Emergence of a pandemic
	Misuse of the purpose of project support by beneficiaries
	Drought or flooding in the project intervention areas
	Insecurity in the project intervention areas
	Low capacity to mobilize personal contributions by beneficiaries
Inflation or volatility of input prices in the market	

Source: Authors.

This categorization made it possible to highlight their distribution contained in figure 1.

**Figure 1**  
*Distribution of risks identified according to the PMBOK*

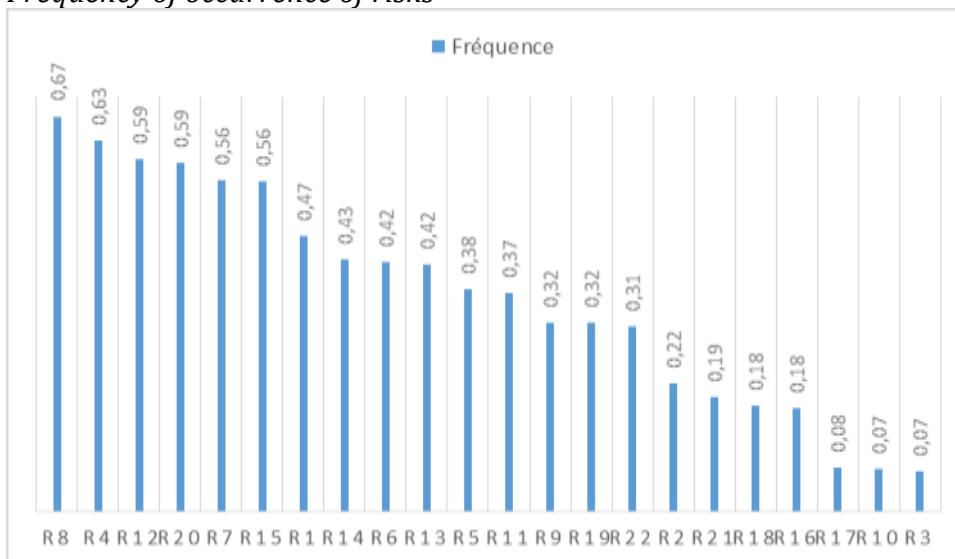


Source: Authors.

This categorization indicates that short-term strategic risks are more prevalent than operational and long-term risks, making proactive and organized measures crucial. It is essential to monitor and assess each risk, develop specific action plans, and implement mitigation, avoidance, or transfer strategies. This approach allows teams to effectively address existing challenges while remaining attentive to long-term issues, thus ensuring business continuity.

Figure 2 illustrates the average frequency with which each identified risk occurs during the implementation of a rural development project.

**Figure 2**  
*Frequency of occurrence of risks*



Source: Authors.

The illustration highlights the high risks associated with project team incompetence, inflation, market fluctuations, lack of control, fraud, corruption, limited personal

contributions, and ineffective payment management. It underscores the importance of thorough analysis, effective mitigation strategies, and rigorous monitoring, identifying root causes, prioritizing risks, developing action plans, and monitoring their implementation (PMI, 2017).

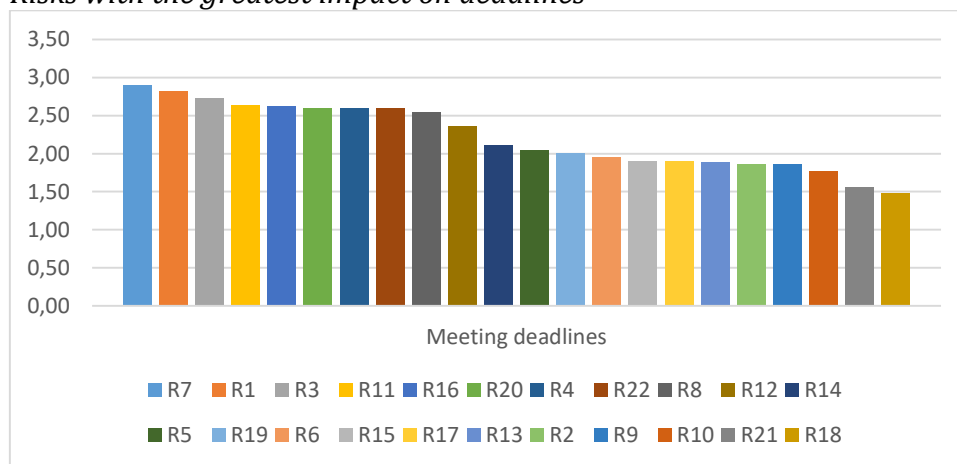
The identification of risks, their classification and the determination of their frequency of occurrence in the cases studied allowed us to analyse their influences on the performance of rural development projects.

### ***Influence of identified risks on the performance of development projects***

The assessment of the impact of the identified risks on the three performance variables (time, cost and quality) was carried out by determining the average of the scores awarded by each interviewee.

#### **Figure 3**

*Risks with the greatest impact on deadlines*



Source: Authors.

All identified risks negatively impact compliance with the deadlines for implementing a PDR. However, the occurrence of one of these sixteen (16) risks cited, ranked in order of influence, has a significant impact on compliance with deadlines:

- R7\_Low capacity of beneficiaries to mobilise their personal contribution;
- R1\_Insecurity in the project intervention areas;
- R3\_Emergence of pandemic;
- R11\_Dysfunction of procurement procedures;
- R16\_Conflict between project team members;
- R20\_Poor execution of activities entrusted to external technical service providers for the implementation of the project;
- R4\_Inflation or volatility of input prices on the market;
- R22\_Delay in obtaining non-objection notices;
- R8\_Incompetence of certain members of the project team;
- R12\_Poor mastery of the technical, administrative and financial procedures of the project by the stakeholders;
- R14\_Slowness in making financial resources available to the project;
- R5\_Fraud and corruption within the project;
- R19\_Failure to comply with the commitments of strategic partners in the execution of planned activities;
- R6\_Misappropriation of the purpose of project support by beneficiaries;

- R15\_Poor management of payments by the project's administrative and financial department;
- R17\_Poor relationship between the project coordinator and the funder.

These risks are manifested during the implementation of PDR activities by:

- Delays in the completion of activities, deliveries, or key project milestones, which can have a snowball effect on the entire annual work plan and budget (AWBP);
- Budget overruns which require the allocation of additional resources, particularly financial, to recover the delay or to mitigate the effects of delays;
- A deterioration in the quality of expected deliverables, as teams may be forced to accelerate their work pace or abandon certain specifications in order to meet deadlines;
- Disputes between the parties, especially if the contracts provide for sanctions in the event of non-compliance with deadlines;
- A negative impact on the reputation of the project team if it fails to meet planned project deadlines.

As a preventive measure, it is necessary to act quickly and proactively, by determining risks affecting deadlines, assessing potential delays and tasks using Gantt charts or critical analyses, and implementing preventive measures.

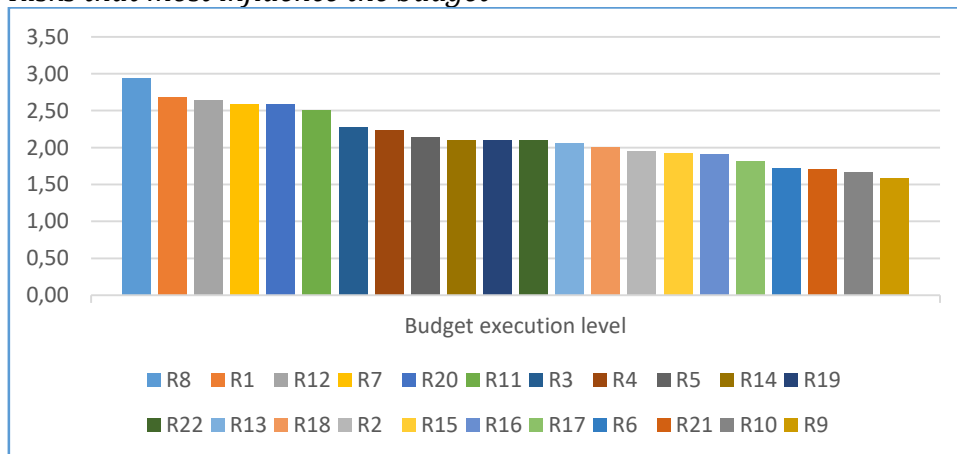
If the risk has already occurred the following corrective actions can be taken:

- Determine specific actions to reduce the delay, adjusting planning if necessary;
- If possible, allocate additional resources to the most critical activities to catch up the delay;
- Inform the parties involved of the situation and the actions taken to resolve the problem.

In case of potential risk, the following preventive measures are recommended:

- Establish actions to reduce the likelihood of the risk occurring or to minimize the consequences if it ever materializes;
- Establish response plans for each identified risk;
- Frequently monitor risk developments and establish key performance indicators (KPIs) to measure the effectiveness of preventive measures.

**Figure 4**  
*Risks that most influence the budget*



Source: Authors.

The fourteen (14) risks identified below may have significant negative consequences on the implementation of the planned budget:

- R8\_Incompetence of certain members of the project team;
- R1\_Insecurity in the project intervention areas;
- R12\_Poor mastery of the technical, administrative and financial procedures of the project by the stakeholders
- R7\_Low capacity for mobilization of personal contribution by beneficiaries;
- R20\_Poor execution of activities entrusted to external technical service providers for the implementation of the project;
- R11\_Dysfunction of procurement procedures;
- R3\_Emergence of pandemic (coronavirus);
- R4\_Inflation or volatility of input prices on the market;
- R5\_Fraud and corruption within the project;
- R14\_Slowness in making financial resources available to the project;
- R19\_Failure to comply with the commitments of strategic partners in the execution of planned activities;
- R22\_Delay in obtaining non-objection notices;
- R13\_Delays or difficulties in mobilizing counterpart funds;
- R18\_Lack of support from the Guardianship.

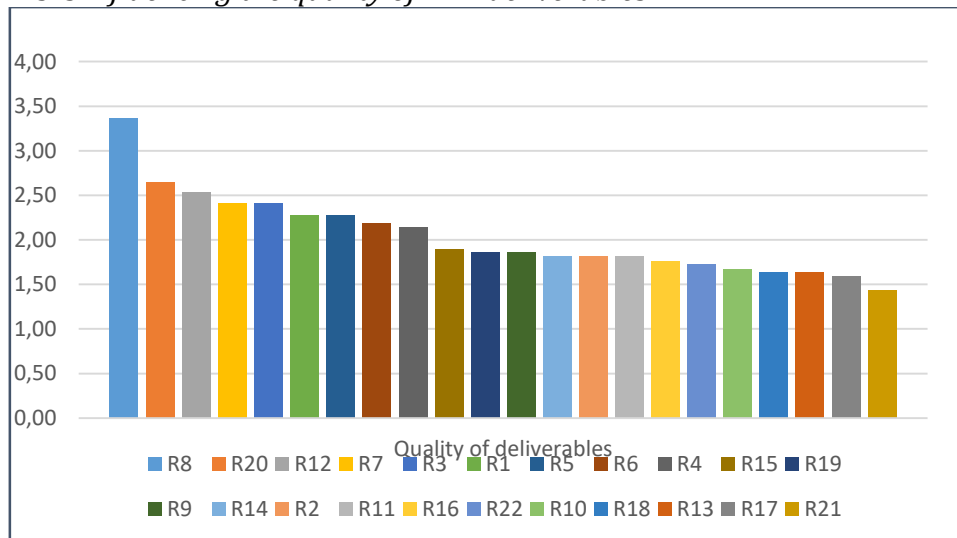
The occurrence of one of these risks manifests itself on a PDR budget in several ways, including:

- Cost overruns, which can lead to unforeseen changes to project specifications or requirements and cause delays. These delays, caused by unforeseen events or poor implementation of activities, can lead to additional costs due to the resulting increased resource and operational expenses. Overly rigid budgets can also cause problems adapting to unexpected changes and lead to cost overruns;
- Poor quality of deliverables which may be linked to the compression of financial resources due to the concern to respect budgets, thus compromising the achievement of project objectives;
- Insufficient employee motivation affecting their productivity, with an impact on costs.

General risk management provisions to avoid or reduce the negative impact of risks on planned budgets require the implementation of the following successive steps:

- Risk identification and analysis. Here, we seek to identify the reasons for the budget overrun (such as a delay in delivery by a service provider, an unexpected increase in the cost of inputs or equipment, etc.). Subsequently, it is necessary to examine the extent of the budget overrun and its impact on other dimensions of performance (deadlines and quality);
- Implement mitigation plans. This involves first identifying possible actions to reduce the impact of the risk (e.g., negotiating with the supplier, optimizing resources, etc.). Then, choosing the most effective measures to reduce the risk. Finally, ensuring that the required resources (financial, time, human) are available for implementing the mitigation plans;
- Monitor and adjust plans. This involves implementing planned actions to reduce risk, monitoring changes in circumstances and determining whether the measures taken are effective, and, if necessary, adjusting mitigation strategies to better address risks.

During the planning and project maturation phases, a contingency budget can be introduced into the overall budget to provide a safety margin to deal with this type of risk or unforeseen expenses.

**Figure 5***Risks influencing the quality of PDR deliverables*

Source: Authors.

An examination of this figure shows that twelve risks have the greatest influence on the quality of expected deliverables. In order of magnitude, these are:

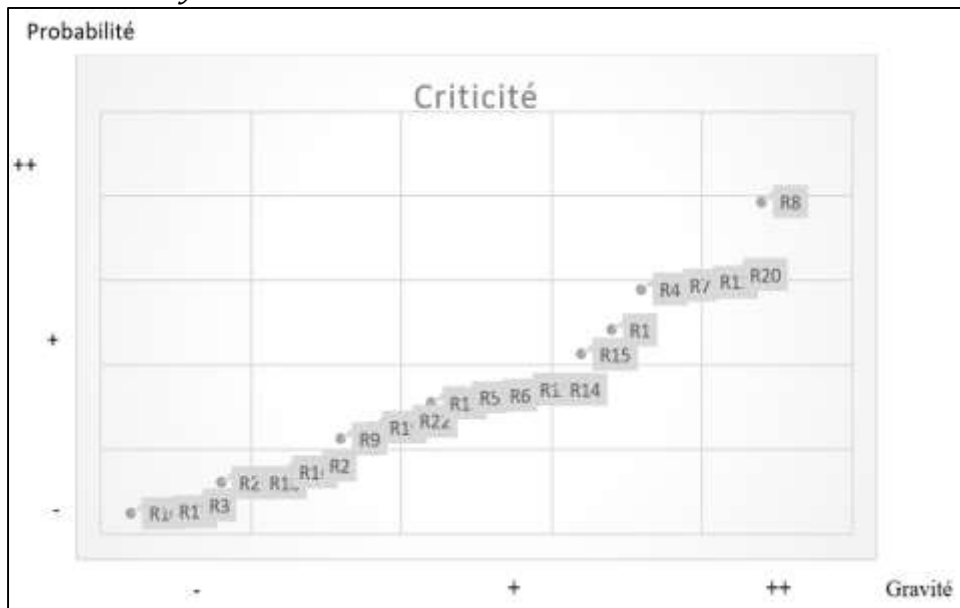
- R8\_Incompetence of certain members of the project team;
- R20\_Poor execution of activities entrusted to external technical service providers for the implementation of the project;
- R12\_Poor mastery of the technical, administrative and financial procedures of the project by the stakeholders;
- R7\_Low capacity for mobilization of personal contribution by beneficiaries;
- R3\_Emergence of pandemic;
- R1\_Insecurity in the project intervention areas;
- R5\_Fraud and corruption within the project;
- R6\_Misappropriation of the purpose of project support by beneficiaries;
- R4\_Inflation or volatility of input prices on the market;
- R15\_Poor management of payments by the project's administrative and financial department;
- R19\_Failure to comply with the commitments of strategic partners in the execution of planned activities;
- R9\_Obsolescence of technical capacities of the beneficiaries' supervisory staff.

The occurrence of this type of risk generally manifested by:

- Recurrence of non-conformities. Expected deliverables do not meet specifications or stakeholder expectations;
- Delays in the execution of project activities. Defects in deliverables may require rework or improvements, resulting in additional delays;
- Increased costs. Corrections and modifications increase the initial budget;
- Stakeholder dissatisfaction. Project stakeholders may be dissatisfied if deliverables do not meet their needs or expectations.

The cases studied led us to establish a risk criticality matrix on which the project team can base management decisions to control risks.

**Figure 6**  
*Risk criticality matrix*



Source: Authors.

The proposed management decisions are contained in Table 3.

**Table 3**  
*Risk control decision*

Code	Probability	Gravity	Criticality	Decision
R10	0.07	1.70	0.12	Negligible risk
R17	0.08	1.77	0.13	Risk to follow
R3	0.07	2.47	0.17	Risk to follow
R21	0.19	1.56	0.30	Risk to follow
R18	0.18	1.70	0.30	Risk to follow
R16	0.18	2.09	0.37	Risk to follow
R2	0.22	1.88	0.41	Risk to follow
R9	0.32	1.76	0.56	Risk to follow
R19	0.32	1.99	0.63	Risk to follow
R22	0.31	2.14	0.67	Risk to follow
R13	0.42	1.86	0.77	Risk to follow
R5	0.38	2.15	0.81	Risk to follow
R6	0.42	1.96	0.82	Risk to follow
R11	0.37	2.32	0.85	Risk to follow
R14	0.43	2.01	0.85	Risk to follow
R15	0.56	1.90	1.06	Risk to be treated
R1	0.47	2.59	1.21	Risk to be treated
R4	0.63	2.32	1.45	Risk to be treated
R7	0.56	2.63	1.47	Risk to be treated
R12	0.59	2.51	1.49	Risk to be treated
R20	0.59	2.61	1.54	Risk to be treated
R8	0.67	2.95	1.97	Risk to be treated

Source: Authors.

This matrix allows us to understand that incompetence (R8; 1.97) and poor execution of activities entrusted to external technical service providers (R20; 1.54) are risks that require special attention. It is clear that if these risks occur regularly during the implementation phase, the expected objectives of the project will never be achieved. To avoid this situation, particular attention must be given to the casting of the project team as well as to the procurement processes.

The risk severity matrix not only provides a forecast of the negative impacts associated with the occurrence of risks, but also facilitates the optimization of resources and efforts to control the most critical risks. These various results make it possible to classify, prioritize, establish priorities, and design action plans to reduce the impact of risks on expected performance. This approach ensures a significant contribution of the project to the development objectives for which it was created.

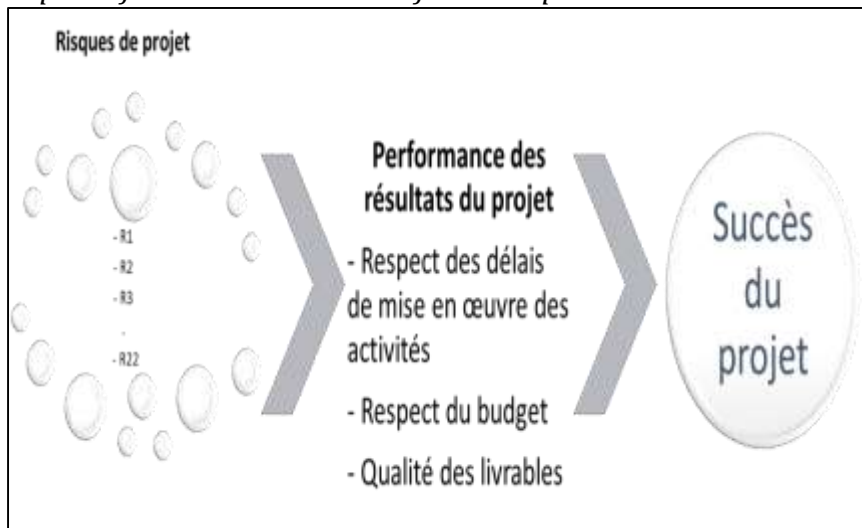
The analysis of the information gathered from our interlocutors and our findings in the project development sector highlight the fact that risk management approaches are only implemented once the risks have already caused damage to the expected results or hindered the execution of the planned tasks, thus confirming our research hypotheses. It is therefore essential that key project stakeholders have risk management skills in order to avoid negative impacts and ensure the desired improvements following a development action.

## **Discussion**

Ndiaye (2017) identifies 19 risk factors affecting the management of international development projects in Senegal. Risk factors are potential causes of risks, while project risks are events with potential negative impacts. This clarification is crucial as it helps distinguish between the concepts and resolve ambiguities. The author indicates that without intervention, 55% of projects in Senegal suffer delays, 42% fail to meet technical specifications, and 37% exceed costs. The most important risk factors include project team expertise, relationships between donors and coordinators, and failure to manage administrative aspects.

Bouchard (2008), on the other hand, examines internal and external risk factors and their impact on the perception of success by key stakeholders in development projects in Africa, Europe, Asia, and Africa. He classifies risk factors into six categories and advises project teams to focus on managing external risks, such as contractual disputes, legal actions, and changes in team composition.

The above sections demonstrate that the occurrence of a risk (independent variable) during the project implementation phase influences at least two performance variables, thus impacting the success of a rural development project. The occurrence of a risk during the implementation phase can have several consequences, which may vary depending on the nature of the risk and how it is managed. Figure 7 below presents the causal links of risks on the success of a development project.

**Figure 7***Impact of risks on the success of a development intervention*

Source: Authors.

Project risks can be financial, technical, external, scheduling, resource, reputational, quality, supplier-related, and health and safety-related. Undesirable impacts on project performance include delays, increased costs, decreased quality, and stakeholder dissatisfaction. If not managed effectively, these risks can have a significant impact on the performance of rural development projects. This supports our two research hypotheses: H1 (the absence of a system for identifying, analysing, and responding to risks influences the performance of a rural development project) and H2 (the lack of risk management negatively impacts the success of a rural development project).

Proactive risk management is therefore crucial to minimize the impact on a project by anticipating risks and implementing mitigation strategies. When project risks occur frequently, prevention and mitigation measures are essential. This involves reviewing the origins, developing risk management strategies, implementing monitoring and control procedures, and maintaining effective communication with all parties involved.

## Conclusion

Project risks can seriously affect the performance of rural development projects by causing delays, additional costs, and compromised quality of results. Our results have enabled us to identify and classify project risks according to their influence on the three performance variables of a RDP. Generally, the occurrence of a risk has a much greater influence on the timeliness of implementation of activities, with a knock-on effect on budget compliance and the quality of deliverables. Our results also reveals the frequency of occurrence of each identified project risk, thus leading to the determination of their criticality level and the proposal of mitigation strategies.

Contributing to improving the performance of rural development initiatives in Cameroon through the identification of project risks is essential and can be broken down into several areas: i) strengthening strategic planning; ii) improving resource management; iii) increasing the quality of interventions, iv) strengthening stakeholder engagement; v) resilience to risks and vi) learning and capitalizing on experiences. Identifying project risks is a crucial lever for improving the performance of development initiatives. By

strengthening planning, optimizing resources and increasing the quality of interventions, development projects can become more efficient and sustainable, thus bringing significant benefits to rural communities.

In summary, this article highlights the need for proactive risk management during the implementation of a development project. Indeed, project risk management is essential to maximize the performance of rural development projects. It helps anticipate problems, improve planning, optimize resources, and ensure the quality of results. Investing in sound risk management is therefore a key element for the success of development interventions in the rural sector.

### **Author contribution statement**

As part of a scientific initiating project, the doctoral student and his thesis supervisor worked closely together to produce this work. At every level, the authors worked together.

### **Competing interests**

The authors declare that they have no conflict of interest that could influence the work reported in this paper.

### **Data availability statement**

All data supporting the results of this study were published in the article itself.

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