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Proposal Title

**Women's Employment Issue in Rural Senegal: What Can We Learn About the Shift
From Farm Activities to Diversification Strategies?**

RESEARCH PROPOSAL

Presented to

Partnership for Economic Policy (PEP)

By

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&

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Before you begin

Please make sure you carefully review and understand the following:

- [Webpage](#) – for priority themes, eligibility criteria and application procedures
- [Guidelines](#) – for designing a research project proposal (in scientific terms - section III)
- PEP requirements and strategy for policy engagement and research communication (section IV)

Please note that:

- This template is mandatory
- Plagiarism is strictly forbidden – see note on “references and plagiarism” at the end of this document/template. PEP will be using a software program to detect cases of plagiarism.
- PEP encourages applicant research teams to submit proposals in English, but content (in text boxes below) may also be written in French or Spanish.

There are three main dimensions to all PEP-supported projects: **capacity building**, **research** and **policy engagement**. Each dimension must be considered with due care and attention as they will be assessed individually and concurrently to determine the overall quality of a proposal.

The PEP proposal template is structured in five sections:

1. Project overview and objectives
2. Capacity building – team composition and experience
3. Research – literature review, method and data
4. Informing policy - context, relevance, process and dissemination
5. Other considerations

SECTION I – PROJECT OVERVIEW & OBJECTIVES

1.1. Abstract (100 to 250 words)

State the main research question, the context and its relevance in terms of evidence-informed policymaking, in relation to PAGE priority issues. Complete with a brief description of the method and data that will be used.

Insert your text here – 100 to (max) 250 words

The purpose of our research is to address rural women's employment issue in Senegal, focusing on two questions. i) What are the main factors limiting women's participation in rural farm and non-farm activities? ii) To what extent do diversification strategies influence rural women's income? To answer these questions, we first perform a descriptive analysis to profile rural women based on socioeconomic and demographic characteristics. Then, we follow a four-step econometric approach. First, we use logit model to identify the main constraints limiting rural women's participation in farm and non-farm activities. Second, we estimate participation equations simultaneously to control for the pull and push factors. Third, we apply the ordinary least squares and quantile regression methods to estimate the revenues generated from farm and non-farm activities. Fourth, we make use of impact evaluation techniques, namely the propensity score matching method and endogenous switching regression model, to assess the impact of diversification strategies on rural women's income. The contribution of this research is twofold: i) while rural women's employment issue has attracted considerable interest among policy makers, little research has been conducted, up till now, to understand how women are faring in Senegal's rural labour market; ii) the research proposal seeks to provide policy makers with evidence-based guidance that can be used to lift constraints faced by rural women and make the diversification strategies successful. To implement our research, we use the labour force survey, i.e. *Enquête nationale sur l'emploi au Senegal*, conducted in 2015 by the National Bureau of Statistics.

1.2. Main research questions (max 500 words)

Explain the focus (or key questions), including the gender-sensitive aspect, of your research and its relevance for policy.

Insert your text here - max 500 words

In order to provide policy makers with evidence-based tools on designing policies to improve women's labour market outcomes in rural Senegal, we focus on two research objectives.

- a) First, we seek to investigate the main factors restricting women's participation in rural farm and non-farm activities as well as the impact of participation on rural women's income.

b) Second, we aim to assess the extent to which diversification strategies in rural areas can impact women's labour income.

We consider three research hypotheses in accordance with our research objectives:

- i) Constraints related to credit markets imperfections, human capital, land, and to infrastructure, as well as the household-related factors mainly limit rural women's involvement in farm and non-farm activities.
- ii) Rural women participating in non-farm activities earn higher income than their counterparts involved in farm activities and the income gap between the two sectors increases across the conditional income distribution.
- iii) Diversification strategies have a positive and significant impact on rural women's income.

1.3. Main contributions (max 500 words)

Describe why and how you expect this research/evidence to contribute to addressing important knowledge gaps, both in terms of scientific contributions* and to inform policymaking.

For the gender-sensitive aspect, explain the potential usefulness of your work for gender-oriented policy.

*The literature review shall be detailed under "Research" (section III), not in this section.

Insert your text here - max 500 words

Our research work contributes to the literature in more than one respect. While several studies have investigated the impact of participation in rural farm and non-farm activities on household welfare, little is known about the effect of participation at individual level (Van den Broeck & Kilic, 2018 ; Aloba Loison, 2019). Household-level analysis, though relevant, can only provide aggregate results. It fails to highlight the disparities that may exist between men and women on the one hand and, between young women and their female elders on the other. Yet, women generally make up a large share of the rural labour force.

Moreover, previous research work conducted in Senegal was limited to investigating whether: a) increasing off-farm employment opportunities, at the household level, is of benefit to the smallholder farm sector through investment linkages (Maertens, 2009) ; b) intergenerational mobility is related to the transition from farm to non-farm sectors and greater level of female economic activity (Lambert et al., 2014) ; c) rural women's preferences for employment contracts in the horticultural export sector are associated with their empowerment status (Van den Broeck et al.,2016) ; d) off-farm employment in the horticultural export industry affect rural women's wellbeing (Van den Broeck and Maertens, 2017). Our study provides, to our knowledge, the first comprehensive analysis of the structure and functioning of the labour market for rural women in Senegal. This is relevant for a number of reasons. First, the involvement of women in rural activities is critical in terms of food security (FAO, 2011; Sraboni et al., 2014; Harper et al.,2013; Akter et al., 2017; Gartaula et al., 2017; Dzanku, 2019). Second, examining women's diversification strategies in rural Senegal is particularly relevant, not only because of the high presence of rural women in the agricultural trade (IPAR, 2015), but also because rural women comprise nearly 70 percent of Senegal's workforce and produce 80 percent of the country's food (IFAD, 2019).

SECTION II – CAPACITY BUILDING

2.1. Team composition and experience

For each team member, please indicate (using the following tables – one per member):

1. **Age, sex, and relevant training, experience and/or expertise** (start with team leader).

Note that:

- Teams must be composed of both **researchers** and **government officials/officers**:
 - Four (4) **researchers** - including one senior/experienced researcher, acting as team leader and at least two researchers aged under 30 - with a sufficient academic and/or professional background in economic policy analysis. In particular, having a master's degree/diploma or being currently enrolled in a master's program is considered a minimum requirement (generally, team leaders should have a doctoral degree/diploma or be currently enrolled in a doctoral program). These members should describe their relevant training and experience in the issues and research techniques involved.

- Two (2) government officials/officers from (and with their involvement sanctioned by) the institution in charge of the policy/program that the research aims to inform. These **government-affiliated members** must have a good understanding of the relevant policy processes and priorities but are not required to have research experience.
- Applicant teams must be gender mixed, with female members representing at least 50% of all members (including the team leader) and contributing substantively to the project. PEP encourages teams with a female leader.
- All members of applicant teams must be African nationals (and reside in Africa for the duration of the project).
- Priority is given to projects in low-income economies, and/or fragile or conflict-affected situations (**LIE/FCS**) but proposals are welcomed from all African countries (including North Africa).
- A researcher can be funded as a team member a maximum of three times by PEP (no more than twice as team leader) and should show marked progression over time.
- A researcher who is already involved in a funded project is not eligible to submit a new proposal before the approval of the final report of the currently funded project.
- Each listed member must post an up-to-date CV in their profile on the PEP website – refer to “How to submit a proposal” and the eligibility criteria on the call [webpage](#).

2. **Benchmark and expected capacity building:**

- Describe the capacities that each team member (and potentially her/his affiliated institutions) is expected to build through their participation in this project. This is an important aspect in the evaluation of proposals and should be presented in detail.
 - What techniques, practices, literature, theories, tools, etc. will each team member and her/his institutions learn (acquire in practice) or deepen her/his knowledge of?
 - How will these skills help each team member in their career (development) and/or professional responsibilities?
 - What is each team member's current state of knowledge with regard to the project you are proposing?

3. **Task and contributions to project:** Indicate the specific tasks each team member would carry out in executing the project.

Note that, in this particular initiative, while all outputs should be focused on the research-policy nexus and produced through a collective and coordinated effort, PEP will provide more specific training/support for:

- *Researcher* team members to take the lead in developing a high-quality scientific research paper (i.e. reporting the process of and results from methodological applications).
- *Government-affiliated* members to take the lead in developing a “policy paper” (i.e. positioning the research and findings within the country's broader policy contexts and strategies).

Team leader

Name	Age	Sex (M/F)	Highest degree/diploma
Thierno Malick DIALLO (Lead researcher)	31	M	PhD
Training and experience	<p>Thierno Malick Diallo is from Senegal. He recently holds his PhD in Economics from Gaston Berger University, where he teaches econometrics and descriptive statistics courses at the undergraduate level. His academic qualifications include a M.Sc. in Applied Economics (Gaston Berger University); and M.Sc. in economic and quantitative analysis (Gaston Berger University). His research fields cover many development economics issues including labour economics, gender equality, poverty and rural economics. He was a Visiting PhD Fellow at the Centre for Studies and Research in Economics and Management (CEREG) at the University of Yaoundé II as part of the Erasmus programme. Thierno Malick Diallo has 6 years' consultancy experience working on labour market and gender equality issues.</p>		
Expected capacity building	<p>The implementation of this research project will allow me to</p> <ul style="list-style-type: none"> - improve my understanding of the functioning and structure of the labour market for rural women - become more familiar with analyzing and interpreting data regarding women's employment issue in rural areas. - formulate recommendations that will help policy makers design programs to strengthen rural women's livelihoods 		
Contribution to project	<p>Mr. DIALLO will be responsible for the overall coordination and supervision of all aspects of the research. He will carry out</p>		

	<p>the literature review as well as the tasks related to the econometric modelling, with the assistance of the other team members. He will coordinate the day-to-day management of the study, and be responsible for reporting the study's findings. Further, he will make contact with stakeholder institutions to ensure the effective dissemination of the research results.</p>
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Researcher #2

Name	Age	Sex (M/F)	Highest degree/diploma
Amoudath MAZU	29	F	PhD
Training and experience	<p>Amoudath MAZU holds recently her PhD in Economics from Gaston Berger University in Senegal. She holds a Master of Business Administration degree from African School of Economics. She is also a specialist in gender issues and economic modelling applied to trade policy reforms in Africa, having received training from UNECTAD and the African Institute for Economic Development and Planning in Senegal. Amoudath MAZU was an African fellow at the Centre for Studies and Research in Economics and Management (CEREG), Yaoundé, as part of the ERASMUS programme.</p>		
Expected capacity building	<p>The implementation of this research will enable me :</p> <ul style="list-style-type: none"> - as a woman to give conferences and debates on issues of rural women's empowerment. - to extend my experience in applied microeconometrics, including econometrics of qualitative dependent variable and impact evaluation techniques. 		

	- to become familiar with STATA and statistical data analysis.
Contribution to project	Mrs. Mazu will assist in ongoing literature review and statistical analyses including setting the logistic regression and the propensity score matching method. In addition, she will draw on her experience in gender analysis to critically analyze the results and guide the formulation of economic policy recommendations. In fact, Mrs. Mazu has a strong background in gender analysis through her training courses funded by the United Nations Economic Commission for Africa (UNECA) and the United Nations Conference on Trade and Development (UNCTAD).

Researcher #3

Name	Age	Sex (M/F)	Highest degree/diploma
Fatou MBOUP	34	F	Master's degree
Training and experience	Fatou MBOUP is completing her PhD in Economics at Gaston Berger University. Her research focuses on understanding the impact of macroeconomic fluctuations on the financial stability in WAEMU countries. Mrs. Mboup is very effective in identifying and developing new research ideas.		
Expected capacity building	While I am well versed in financial databases and macroeconomic modeling techniques, the study will help me in carrying out the secondary data analysis and developing the microeconometrics methods proposed in the research		

	<p>proposal. Therefore, a training on microeconometrics modeling techniques will help me designing robust methodological tools for analysis. Such support will not only deepen my knowledge, but also hone my skills to conduct development oriented research in rural economy in the future.</p> <p>I anticipate that this project will definitely enable me to develop research expertise that could facilitate in furthering the future research activities in women’s empowerment as well as in rural economy.</p>
Contribution to project	Mrs. Mboup will contribute substantively to the project, ranging from the literature review to the econometric analyses. Additionally, she will assist with scheduling, and assessments

Researcher #4

Name	Age	Sex (M/F)	Highest degree/diploma
Marième Fatou SEYE	26	F	Master’s degree
Training and experience	<p>Mrs. Marième Fatou SEYE is a junior researcher affiliated with the <i>Laboratoire de Recherche en Économie de Saint-Louis (LARES)</i> and holds a Master's degree in Banking and Financial Econometrics from Gaston Berger University. She worked on the determinants of mobile banking choice in Senegal as part of her thesis, focusing on the specific case of Orange Money. The topic provided her with a better understanding of the many challenges faced by women, particularly those living in rural areas, in financing their activities Mrs. SEYE has strong quantitative analysis and writing skills as well.</p>		

Expected capacity building	<p>The implementation of the present research will enable me to:</p> <ul style="list-style-type: none"> - have a clear understanding of the main aspects of women's employment issue in rural Senegal - further develop both my passion and my abilities to conduct in-depth research as a junior researcher - be more conversed with survey data analysis and micro-econometric modelling using Stata. - guide policy makers in implementing sustainable development policies that will empower rural women in Senegal.
Contribution to project	<p>Mrs. Seye will contribute to the literature review, and will assist with the development of the quantile regression techniques and impact evaluation methods.</p>

Government official/officer #1

Name	Age	Sex (M/F)	Highest degree/diploma
Abdoulaye DIEYE	35	M	Master's degree
Training and experience	<p>Mr. Abdoulaye DIEYE holds a master's degree in Banking and Financial Econometrics from Cheikh Anta DIOP University in 2010. He also holds an inter-university master's degree in Rural Development and Cooperation, which he obtained through a partnership between the University of Barcelona, the Polytechnic University of Catalonia and the Gaston Berger University. Mr. DIEYE graduated as valedictorian of his class. He works now for the government as an Economist, Expert in Poverty Reduction Strategy, in the <i>Centre d'Etudes de</i></p>		

	<p><i>Politiques pour le Développement (CEPOD), Direction Générale de la Planification et des Politiques Economiques (DGPPE), Ministère de l'Economie du Plan et de la Coopération (MEPC).</i></p> <p>Mr. DIEYE is also a PhD student in economics at Gaston Berger University.</p>
Expected capacity building	<p>The implementation of this study is crucial for several reasons. It will enable me to:</p> <ul style="list-style-type: none"> - clearly identify the main factors that limit women's participation in rural farm and non farm activities - better guide national reforms and policies aimed at empowering rural women - deepen my knowledge on microeconomic modelling, including impact evaluation techniques
Contribution to project	<p>Mr. Dieye will develop reports and summarising findings. He will also be responsible for the dissemination of results to stakeholders as well as the presentation and explanation of the results.</p>

Government official/officer #2

Name	Age	Sex (M/F)	Highest degree/diploma
Ibrahima Ndiaye	35	M	Master
Training and experience	<p>Mr Ibrahima Ndiaye holds a Master's degree in Banking and Finance from Alioune Diop University and a Master's degree in Applied Economics from Gaston Berger University. He has been in charge of monitoring and evaluating public policies since 2014, particularly in the industrial, mining and geology and agricultural sectors. He works in the <i>Unité de Coordination</i></p>		

	<p><i>et de Suivi de la Politique Economique (UCSPE)</i> in Growth and Poverty Reduction Department which is under the supervision of the Ministry of Economy, Planning and Cooperation.</p> <p>Mr. Ndiaye has participated in several capacity building workshops and training courses in poverty reduction strategy.</p>
Expected capacity building	<p>As being in charge of the design, and monitoring and evaluation of reform policies in a multitude of areas, this research will help me to:</p> <ul style="list-style-type: none"> - better define and consolidate reforms in the agricultural sector aimed at improving the employability and livelihoods of rural women - review and evaluate the different policies related to structural transformation of rural areas - initiate/propose further studies related to rural women's empowerment issue.
Contribution to project	<p>Mr. Ndiaye will develop reports and summarising findings. He will also be responsible for the dissemination of results to stakeholders as well as the presentation and explanation of the results.</p>

2.2. List of past, current or pending (non-PEP) projects in related areas involving team members, including resulting publications (If any)

Indicate the funding institution, the title of the project and related publications, and list the team members involved.

Name of funding institutions	Title of projects and related publications (link)	Team member(s) involved
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	Title:	
	Publication (reference):	
	Title:	
	Publication (reference):	
	Title:	
	Publication (reference):	
	Title:	
	Publication (reference):	
	Title:	
	Publication (reference):	

2.3. List of past or current PEP-supported projects involving team members, including resulting publications

Project code (e.g. PMMA-12345)	Title of project and related external (non-PEP) publications, if any	Team member(s) involved
MPIA 12868	Title: <i>The Impact of Trade Reforms on Employment and Wellbeing in Senegal</i> Publication (reference):	Thierno Malick Diallo
	Title: Publication (reference):	
	Title: Publication (reference):	
	Title: Publication (reference):	
	Title: Publication (reference):	
	Title: Publication (reference):	

SECTION III – RESEARCH, METHOD AND DATA

This section should be completed by the team leader and/or research members

3.1. Literature review (1000 to 1500 words)

Explain the specific gaps in the existing literature that your research aims to fill. You might want to explain whether this question has been previously addressed in this context (including key references), and if so, what you intend to achieve by examining the question again. Be sure to

include literature that provides conceptual foundations for the gender analysis to be undertaken in your research.

Insert your text here – 1000 to (max) 1500 words

Women's employment issue in rural areas has received extensive attention among policy-makers and researchers. It is estimated that rural women represent a quarter of the world's population and about 49 percent of the agriculture workforce in low income countries. In addition, rural women play an active role in agricultural production, natural resource management as well as in climate change adaptation and mitigation. However, their economic participation in rural development is largely undervalued, and most of them are engaged in labour-intensive and precarious jobs (Gopalakrishnan & Sukthankar, 2012 ; FAO, 2017 ; ILO, 2018).

Rural women face many other challenges. Although rural women in developing countries perform most of the reproductive labour (Bigler et al., 2017), they work longer hours, generally 12 more hours per week, than their male counterparts (Datta & De, 2015) and, the gender earnings gap can reach up to 40 percent (ILO,2018).

Besides, women's contribution to food and nutrition security is limited due to some gender-specific limitations. First, women remain the main care providers for both children and the elderly and there is evidence that having to care for an elderly person has a negative impact on their income (Qiao et al., 2015). Second, they do not have equal access to productive resources such as land, information, capital, credit, marketing services and other inputs compared to men (FAO, 2011; World Bank, 2012; Alkire et al., 2013; Fletschner & Kenney, 2014 ; Akter et al., 2016 ; Doss et al.,2017).Yet, gender equality is essential to global food security and agricultural expansion (Sraboni et al., 2014; Harper et al.,2013 ; Akter et al., 2017). This is because women produce over 50 percent of the world's food, and they are more likely than men to spend nearly all of their income on their family's well being, especially on child health, education and nutrition (Quisumbing & Maluccio, 2000 ; Bortei-Doku, 2002; FAO,2011; Duflo, 2012; Maertens & Verhofstadt, 2013; Akter et al., 2017). According to FAO (2011), achieving gender equality would increase agricultural production by 2.5 to 4 percent in developing countries and reduce the number of undernourished people by 12 to 17 percent worldwide. This is particularly true as households tend to be less food insecure for female- than for male-headed households (Dzanku, 2019)

In Senegal, where our research will be conducted, the population is predominantly rural and female. On the one hand, even if the urbanization process continues to accelerate, Senegalese population remains, so far, mostly rural. According to the last general population and housing census in 2013, rural people accounted for 66 percent and 61 percent of the population in 1976 and 1988, before dropping to 59 percent and 55 percent in 2002 and 2013, respectively. On the other hand, the Senegalese population is composed mainly of women, who represent 52.6 percent of the total population and 53 percent of the rural population (ANSD,2013). Agriculture is an important employment sector for rural women in Senegal. However, the sector is not very attractive in terms of providing decent jobs for them, due to its low productivity growth (Fall et al. 2013; FAO 2017; IFAD, 2019), but also to land tenure-related constraints which have negative impact on household livelihoods (Koopman, 2009). This situation limits the extent to which agriculture overcomes food insecurity and poverty in rural areas and, as a result, drives rural women into diversification activities.

The empirical literature points out many potential reasons that can lead to diversification. Households may be pulled to the non-farm sector due to its risk-minimizing role, or due to its higher returns to labour and/or capital (Kilic et al., 2009; Reardon et al., 2001). Household's decision to diversify is also an important livelihood strategy (Saha & Bahal, 2014). In fact, diversification practice is essential in terms of cash incomes, food security and wellbeing (Minot et al., 2006; Kilic et al., 2009; Oseni and Winters, 2009; Gartaula et al., 2017), and this is most so for poorer households (Saha & Bahal, 2014). In addition, the need to overcome constraints related to imperfections in credit markets may induce rural households to participate in non-farm sector (Reardon, 1997; Ruben & van den Berg, 2001; Kilic et al., 2009).

It follows from the above that the factors influencing diversification strategies are of two kinds: the "pull" and "push" factors. In the first case, a number of pull factors drive household members to seek better employment opportunities off the farm, while in the second, households are pushed toward diversifying activities as a coping strategy (Barrett et al., 2001; Deshingkar, 2004 ; Reardon et al., 2007 ; Davis et al., 2009; Martin & Lorenzen, 2016 ; Alobo Loison, 2019 ; DeRosa et al., 2019).

While women's employment issue has attracted considerable interest among researchers, a research gap exists about their diversification strategies in rural economy. This situation points out the need for more case studies in order to strengthen rural women's livelihoods. Our research proposal falls within this perspective.

3.2. Methodology (1200 to 1600 words)

Present the specific techniques that will be used to answer the research questions and how exactly they will be used to do so.

- Explain whether you will use a particular technique normally used in other contexts or whether you intend to extend a particular method and how you will do so.
- Explain if these methods have already been used in the context you are interested in (including key references).
- Explain how these methods incorporate and/or are appropriate for addressing gender considerations in your research.
- **For PMMA (microeconomic analysis) proposals only:** It is generally expected that the proposed methodology aims to empirically estimate a causal relationship. In such a case, you should explain potential sources of endogeneity in the context of your research and how the proposed technique(s) would allow the identification of the relevant parameters. You are strongly encouraged to discuss the potential impact mechanisms i.e., the channel(s) through which the "treatment" impacts on your outcome(s). Also, make sure you clearly present the outcome(s), the "treatment" and the sample used in the analysis.

Insert your text here – 1200 to (max) 1600 words

Theoretical and econometric models

A. Rural women's theoretical model

The aim here is to analyze rural women's decision to move from farm to non-farm activities or to involve in both types of activities. To this end, we formalize rural women's choice of activity, based on the theoretical model in Barnum and Squire (1979) adapted by Squire et al (1986) and Bezu (2010).

In our model, we assume that farming is the primary activity in which rural women are engaged. However, we consider that they may also decide to participate in non-farm activities.

Rural women use three main factors of production in their agricultural activities. These are land (A), labour (L) and capital (K).

The revenues from farm activities (R_{fa}) are expressed as follows:

$$R_{fa} = \underbrace{F^{fa}(L_{se}, K_{se}; p)}_{fa=farm\ activities}$$

where p is the vector of prices.

Concerning non-farm activities, only two factors of production are taken into account: labour and capital¹. In this context, rural women can engage in two types of non-farm works: non-farm wage employment and non-farm self-employment. The revenues generated from non-farm activities (R_{nfa}) are given by:

$$R_{nfa} = \underbrace{F^{we}(L_{we}, K_{we}; p)}_{we=wage\ employment} + \underbrace{F^{se}(L_{se}, K_{se}; p)}_{se=self\ employment}$$

Although the minimum level of capital investment for non-farm self-employment is assumed to be significantly higher than that of non-farm wage employment, both categories of jobs have a revenue function characterized by diminishing marginal returns to capital.

Given revenues derived from farm and non-farm activities, consumption expenditure, leisure time, and capital endowment, each rural woman maximizes a utility function expressed as :

$$Max U(C, L_e; X)$$

where U is quasi-concave and continuously differentiable, C denotes the consumption and L_e the leisure. X is a vector of demographic and socio-economic characteristics that determines rural women's preferences in terms of consumption and leisure.

The utility function is maximized subject to the following constraints:

¹ Unlike in agriculture, land is not an essential factor of production in non-farm activities.

$$\left\{ \begin{array}{l} C \leq F^{fa}(L, K, \bar{A}, p) + F^{we}(L_{we}, K_{we}; p) + F^{se}(L_{se}, K_{se}; p) \\ K_{fa} + K_{we} + K_{se} \leq K \\ L_{fa} + L_{we} + L_{se} \leq \bar{L} \\ L_{fa}, L_{we}, L_{se}, K_{fa}, K_{we}, K_{se} \geq 0 \end{array} \right.$$

The first constraint implies that rural woman's consumption expenditure should be lower than revenues from both farm and nonfarm activities. The second constraint represents the capital constraint K and denotes all the assets owned by rural woman. The third constraint is the labour constraint whereas the fourth one refers to the non-negativity constraint.

Given the utility maximization programme, rural women's participation in non-farm activities is primarily conditional on the size of capital endowment and the returns on invested capital. Thus, a rural woman will diversify into non-farm wage employment and/or non-farm self-employment if, on the one hand, the minimum capital requirement for investment in non-farm activities is attained; and if, on the other hand, the marginal returns from non-farm activities are at least as high as those in agriculture.

B. The econometric models

In line with the purpose of our research work, we perform a descriptive and econometric analysis. The objective of the descriptive approach is to profile rural women based on socioeconomic and demographic characteristics. In addition, we adopt a four-step process in the econometric approach. In each step, the regressions are estimated separately both for men and women and for relatively young females (aged 18 to 30) and relatively old ones (aged more than 30 years). Such distinctions are made so as to check whether rural women and young age group are disproportionately disadvantaged in terms of labour market outcomes relative to rural men and old age group, respectively.

More specifically:

- First, we analyze labour market participation using logit regression model. This first step allows us to determine the key factors influencing access to farm and nonfarm employment.
- Second, we consider that rural farm and non-farm sectors are closely related through the pull and push factors. We assume that a high value-adding non-farm

sector strongly pulls rural women off the farm as predicted by the pull hypothesis, and conversely agricultural activities that barely meet subsistence needs push rural women into non-farm work activities as predicted by the push hypothesis. Hence, to investigate the relative importance of the pull and push factors and test the robustness of the logit models estimates, we estimate participation equations simultaneously

- Third, we examine the determinants of rural women's income using ordinary least squares (OLS). We then complete the analysis with the quantile regression technique first developed by Koenker and Basset (1978) to investigate whether income determinants differ across the conditional income distribution. In fact, OLS regression models the mean of the conditional distribution of the dependent variable. However, the explanatory variables may affect the conditional income distribution differently at different points in the distribution, indicating that OLS results may overlook important information. In addition, since the quantile regression technique minimizes the absolute sum of errors, it is more efficient at reducing the impact of outliers on the results compared to the OLS method (Deaton, 1997 and Buchnisky, 1998). From a policy point of view, the quantile regression technique is particularly interesting as it enables us to analyze the structure of income disparities among rural women and check the extent to which the effect of some of the exogenous variables (for example human capital variables) are inequality reducing.
- Fourth, we perform the propensity score matching (PSM) method and the endogenous switching regression model to compute the average treatment effect of the adoption of diversification strategies by matching exclusively rural women who diversify their activities with rural women with similar characteristics but who are not engaged in diversification activities. Specifically, we use these two methods to assess the impact of diversification strategies on rural women's income. To this end, we start with the PSM method. However, one limitation of the PSM technique is that it assumes that the diversification decision is based only on observable

characteristics, which is unlikely in rural Senegal. Hence, we use also the endogenous switching regression model. This technique accounts for potential selection biases (Maddala, 1983), as it controls for both observed and unobserved factors when estimating the impact of diversification strategies on rural women's income.

More formally, because our participation variables are dichotomous we use a latent variable formulation and express the participation equations as follows:

$$\text{participf}_i^* = Z_i\theta_f + \varepsilon_i \quad (1)$$

$$\text{participnf}_i^* = Z_i\theta_{nf} + \omega_i \quad (2)$$

We define $\text{participf} = 1$ if $\text{participf}_i^* \geq 0$, otherwise $\text{participf} = 0$, illustrating whether or not household members participate in farm activities.

Similarly, $\text{participnf} = 1$ if $\text{participnf}_i^* \geq 0$, otherwise $\text{participnf} = 0$, referring to whether or not household members participate in non-farm activities.

Z_i is a vector of individual, household and community characteristics. θ_f and θ_{nf} are vectors of parameters to be estimated, indicating the farm and non-farm participation equations, respectively, and ε_i and ω_i are the errors terms.

Taking into account the pull and push factors, we estimate the participation equations simultaneously. As a result, we allow ε_i and ω_i to be correlated, suggesting a potential combined outcome of the pull and push factors in the rural labour market.

Furthermore, we follow Mincer's (1974) model to investigate empirically the determinants of rural women's income. For that, we consider an earnings equation of the form:

$$\ln W_i = \beta \text{sect}_i + \gamma \text{cont}_i + \mu_i \quad (3)$$

where $\ln W$ is the monthly income measured in natural logarithms, sect is a categorical variable representing the rural women's employment sectors, cont is a vector of individual, household and community characteristics, γ et β are vectors of parameters to be estimated and μ the error term.

We complete the analysis with the quantile regression technique. The two methods are complementary and should be applied together.

The quantile regression model is expressed as:

$$\ln W_i = \alpha_\theta X_i + \omega_{\theta i} \quad (4)$$

with $\text{Quant}_\theta(\ln W_i | X_i) = X_i \alpha_\theta$ et $\text{Quant}_\theta(\omega_{\theta i} | X_i) = 0$

X_i is a vector of covariates including the sector of employment and a set of control variables, α_θ is a vector of parameter and ω_θ the random error terms. $Quant_\theta(\ln W_i | x_i)$ represents the θ th conditional quantile of $\ln W_i$ given X .

As mentioned above, the propensity score matching method is employed in the last step to assess the impact of diversification strategies on rural women's income.

Following Rosenbaum and Rubin (1983), the outcome is the rural women's income while the treatment is that of adoption of diversification strategies. The average impact of treatment on the outcome is given as follows:

$$E[Y_{i1}|T = 1] - E[Y_{i0}|T = 0] \quad (5)$$

Where Y_{i1} and Y_{i0} represent income for rural women engaged in diversification and those who do not, respectively ; and T_i is equal to 1 if the i^{th} rural woman diversifies its incomes activities and 0 otherwise.

To check the robustness of our results, we also use the endogenous switching regression. This consists of two stages. In the first stage, a selection equation for diversification decision is modeled with a binary specification, while in the second stage, outcome equations are estimated for diversified and non-diversified rural women conditional on selection.

We specify the selection equation for the adoption of diversification strategies as:

$$T_i^* = \alpha Z_i + u_i \quad (6)$$

$$\text{with } T_i = \begin{cases} 1 & \text{si } T_i^* > 1 \\ 0 & \text{otherwise} \end{cases}$$

where T_i^* is a latent variable, T_i is a binary dependant variable equals to 1 if the rural woman diversifies its income activities, Z_i is a vector of exogenous variables, α is a vector of parameters to be estimated and u_i is the error term.

Following Equation (6), the outcomes are observed for two groups: (i) rural women involved in diversification strategies and (ii) those who are not involved:

$$\text{Regime 1 : } Y_{1i} = \beta_1 X_{1i} + \varepsilon_{1i} \quad \text{if } T_i = 1 \quad (7)$$

$$\text{Regime 2 : } Y_{0i} = \beta_0 X_{0i} + \varepsilon_{0i} \quad \text{if } T_i = 0 \quad (8)$$

where Y_i is the monthly income in regimes 1 and 2, X_i represents a vector of explanatory variables and β is a vector of paramters.

If unobserved characteristics of rural women, such as women's ability and motivation, influence both the diversification decision and the monthly income, then the error term in the selection equation (6) would be correlated with the error terms in (7) and (8). These three equations are estimated simultaneously using the full information maximum likelihood (FIML). This is because the FIML remains the most efficient method (Lokshin & Sajaia 2004).

Our interest here is to determine the treatment effect of participation in diversification strategies, i.e., how diversification strategies influence rural women's income. Thus, we use the endogenous switching regression model to compare expected income of women that diversified (a) with respect to women that did not diversify (b), and to estimate expected income in the counterfactual hypothetical cases (c) that the diversified rural women group did not diversify, and the non-diversified rural women group diversified (d).

3.3. Data requirements and sources (1000 to 1300 words)

This is a critical part of the proposal. Explain the reason for your choice of particular databases. You must establish that they are ideal for the policy question you wish to address (including in terms of gender analysis) and that you have or will have access to these data before your project begins. Please consult the "[Guide for designing a research project proposals](#)" for more detail.

Insert your text here – 1000 to (max) 1300 words

To implement our research, we use the first and most comprehensive labour force survey, i.e. *Enquête nationale sur l'emploi au Senegal (ENES)*, conducted from June to July 2015 by the Senegalese National Bureau of Statistics (ANSD) in collaboration with the World Bank as part of the Statistics for Results Facility (SFR) project. Since then the survey is carried out on three-monthly basis each year. The main purpose of the ENES is to measure labour supply. More precisely, the ENES is a household-based sample survey which collects labour market information of individuals aged 10 years or older who live in Senegal.

The ENES is a nationally representative survey, including both urban and rural areas in all the regions of the country. The survey used a multi-stage stratified sample selection process.

In the first stage, a sample of approximately 426 enumeration areas (EAs) were selected throughout the country, including 282 in urban areas and 144 in rural areas, with probability proportional to size using the number of households per EAs as a measure of size. In the second stage, drawing on the last general population and housing census as the base for the sample,

- 18 households were selected with equal probability in each of the rural EAs
- 12 households were selected with equal probability in each of the urban EAs

This gives a total sample size of 5976 households, including 3384 in urban areas and 2592 in rural areas. The sampling weights were constructed so that to produce nationally representative statistics with the data.

The ENES questionnaire comprises, in total, 11 sections, including 3 sections on identification and basic information about the household and household members, an entry section to identify the different components of the labour market and direct the interviewer to the sections that concern the individual to be interviewed, and 7 sections on employment issues.

The unit of analysis in our study is rural women aged 18 to 64 who have reached the minimum legal age for employment in accordance with ILO Convention No. 182. A comparative analysis of the position of young women (aged 18 to 30) compared to adult women (aged 31 and over) will be conducted to identify potential differences in outcomes between the two groups. Such comparison is important as it allows us to investigate whether young women are more disadvantaged than their elders in terms of participation and earnings in the rural labour market.

Similarly, the study will also analyze the situation of rural men and rural women so as to check whether rural women are disproportionately disadvantaged relative to rural men in terms of rural labour market outcomes.

Given that our study focuses solely on the rural population, three different categories can be identified. The first and second categories include women who participate only in farm and non-farm activities, respectively; whereas the third category refers to women who diversify their activities, i.e. those engaged in both types of activities. More precisely, by diversification, we mean women's participation in both rural farm and non-farm activities. A research gap exists in the literature as most studies investigate diversification strategies at household-level, and not at individual-level. Since rural women are likely to be disadvantaged in terms of participation in farm

and non-farm employment, disaggregated data on a gender-specific basis are essential to study the impact of diversification strategies on rural women's livelihoods.

The variables used in the study are chosen on the basis of theoretical and empirical research work. For convenience, they are divided into three groups: individual characteristics, household characteristics and community characteristics.

SECTION IV – INFORMING POLICY

This section should be completed by the government-affiliated members, and validated by the head of their institution (to be confirmed in the required acknowledgement letter).

4.1. Government affiliation

- a) Name the government institution at which you are employed, and describe its general mandate

N.B. This does not engage the institution itself to sanction, take part in and/or sponsor the proposed research project, other than authorizing the employees identified in section 2.1 (and below) to take part in the related work on a personal basis.

Insert your text here – max 50 words

Government official/officer #1

Je suis affilié au **Centre d'Etudes de Politiques pour le Développement (CEPOD)**, institution rattachée à la Direction Générale de la Planification et des Politiques Economiques (DGPPE) du Ministère de l'Economie, du Plan et de la Coopération (MEPC).

Le CEPOD a pour mission de contribuer :

- au renforcement des capacités nationales dans l'administration publique, le secteur privé et la société civile en matière d'analyse et de formulation de politiques économiques financières et sociales et de promotion de la bonne gouvernance;
- à la mise en œuvre d'activités de recherches et de formations sur les questions économiques financières et sociales notamment dans le cadre du programme de bonne gouvernance et de renforcement des capacités de gestion économique et sociale, de la stratégie de développement du secteur privé et de la stratégie de réduction de la pauvreté;

- au développement de mécanismes formels de discussions autour de résultats de recherches est sur des questions de politiques économiques et sociales entre représentants du secteur public, du secteur privé et de la société civile.

Government official/officer #2

L'institution gouvernementale à laquelle je suis affilié, s'appelle **Unité de Coordination et de Suivi de la Politique Economique (UCSPE)**. Elle se trouve à la Direction générale de la planification et des politiques économiques qui est sous la tutelle du Ministère l'Économie, du Plan et de la Coopération du Sénégal. Son mandat est principalement d'assurer la coordination, le suivi et l'évaluation des politiques publiques de développement de l'État du Sénégal, en parfaite collaboration avec les différents Ministères sectoriels et acteurs au développement.

b) What is/are your specific role(s)(as employees) in the institution

Government official/officer #1	
Name	Abdoulaye DIEYE
Title/position	Économiste, Expert en stratégies de réduction de la pauvreté
Role/responsibilities	<ul style="list-style-type: none"> - Mener à bonne fin des travaux d'analyse, de formulation et de suivi-évaluation de politiques et de stratégies de réduction de la pauvreté - Mener à bonne fin des travaux de conception, de mise en œuvre et de suivi-évaluation de modules de formation et de renforcement des capacités à l'intention de bénéficiaires potentiels des interventions du CEPOD ; - Représenter le CEPOD dans des rencontres, groupes de travail et réseaux ; - Participer à la rédaction de rapports, d'ouvrages et d'articles de bulletins du CEPOD. - Participer à la définition de politiques nationales de développement économique et social

	- Exécuter tous travaux de recherches et d'analyse demandés par la hiérarchie.
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Government official/officer #2	
Name	MONSIEUR IBRAHIMA NDIAYE
Title/position	Économiste
Role/responsibilities	Je suis chargé de faire le suivi évaluation du secteur de l'Industrie, des petites et moyennes Industries et du secteur des Mines et de la géologie et du secteur agricole.

4.2. Describe the policy context and needs

- a) Describe the specific policy issue(s), questions or needs faced by your institution and that the research project aims to inform - both in terms of socioeconomic outcomes (identify the target/beneficiary population), and the related policy processes (whether it is at the stage of debate, decision, design, implementation, review, reform, etc.).

Explain why the evidence to be produced with this research is important/useful to inform decision-making, especially **with regard to your institution's specific mandate and strategies**.

Insert your text here – max 300 words

Dans un contexte national de mise en œuvre du deuxième Plan d'Action Prioritaire (PAP) du Plan Sénégal Émergent (PSE II 2019-2023), le CEPOD et l'UCSPE sont tous deux impliqués dans l'élaboration dudit document de planification du développement (M. Abdoulaye DIEYE et M. Ibrahima NDIAYE ont d'ailleurs été associés au processus d'élaboration du plan), mais aussi dans les activités de suivi évaluation et d'évaluation à venir, est, à ce titre, tenus de contribuer à la réussite de sa mise en œuvre. Nos deux institutions, notamment le CEPOD et l'UCSPE, ont également suivi et facilité le processus d'arrimage de la Stratégie Nationale pour l'Équité et l'Égalité de Genre (SNEGG révisée) au PSE II.

Le PSE II mise sur la transformation structurelle de l'économie, avec comme fer de lance, un capital humain bien formé, et un secteur agricole moderne et productif intégré à un secteur industriel

florissant ; diversifié et pourvoyeurs d'emplois. Il accorde également une importance capitale à la réduction des inégalités de genre.

Son contexte de mise en œuvre laisse apparaître une pauvreté toujours importante même si le taux diminue. Selon les chiffres de la dernière Enquête de Suivi de la Pauvreté au Sénégal (ESPS II 2011), le taux de pauvreté était de 46,7% au niveau national et 57,1% en milieu rural. En 2017, les estimations font état d'un taux de pauvreté de l'ordre de 40%. Toujours dans ce contexte, le taux de chômage se situe en moyenne à 15,7% au niveau national, à 18,6% en milieu urbain contre 13,1% en zone rurale. Il est d'ordre de 22,1% pour les femmes et 9,6% pour les hommes.

Cette situation montre la faible productivité de l'agriculture, principale activité en milieu rural, et la féminisation de la pauvreté. Dans une telle situation, les conclusions de ce présent projet devraient permettre de répondre à des questions essentielles posant la problématique de l'emploi des femmes en milieu rural, dans une perspective de développement économique et sociale, mettant en avant le choix d'une diversification des activités pour une meilleure productivité et une plus grande production de richesses. Les résultats pourraient ainsi être disséminés par le CEPOD et l'UCSPE au niveau de l'administration et du secteur privé pour une mise en application effective des recommandations.

b) What are the **current policy options/scenarios**, faced by (or available to) decision-makers - in terms of potential interventions, approaches, etc. - in relation to this particular issue?

If possible, also provide a **brief history** of policy initiatives (and related reforms, if any) implemented in the past to address the issue, indicating generally what worked and what didn't (i.e., why is this still an issue?).

Insert your text here – max 400 words

Aujourd'hui, en lien avec la problématique reprise par le projet, l'État du Sénégal met en œuvre plusieurs politiques importantes et se place dans la logique du respect de plusieurs conventions et accords internationaux.

La stratégie générale de développement repose sur le Plan Sénégal Émergent (PSE II 2019-2023). Ce document note, parmi les contraintes majeures à la transformation structurelle de l'économie,

les problèmes d'équité et d'égalité de genre, la faiblesse du capital humain, la faible productivité de l'agriculture, la faible diversification de l'économie et la faible industrialisation.

Dans le même temps, la SNEGG révisée dont la vision est de « contribuer à faire du Sénégal un pays émergent avec une société solidaire dans un État de droit, sans discrimination, où les hommes et les femmes ont les mêmes chances de participer à son développement et de jouir des bénéfices de sa croissance », qui est en cours de mise en œuvre, montre des disparités importantes entre hommes et femmes dans les secteurs productifs, notamment dans l'agriculture, et propose des mécanismes d'action pour l'équité de genre et le développement socio-économique.

Pourtant le Sénégal a, depuis plusieurs années, mis en œuvre des politiques, projets et programmes qui ont découlé de plusieurs stratégies de développement, mais aussi de conventions et accords de développement.

Relativement aux stratégies de développement, l'on peut citer les deux générations de Documents de stratégie de réduction de la pauvreté (DSRP I et II), le Document de Politique Économique et social (DPES), la Stratégie Nationale de Développement Économique et Social (SNDES). Tous ces documents ont pourtant soulevé les problèmes d'autonomisation des femmes et de faiblesses des revenus agricoles. Ils ont proposé des stratégies qui n'ont globalement pas données les résultats escomptés.

Relativement aux accords et conventions internationaux que le Sénégal est tenu de respecter, il est possible de citer, entre autres, la Convention sur l'Élimination de toutes les Formes de Discrimination à l'Égard des Femmes (CEDEF) adoptée en décembre 1979 ; la déclaration solennelle en faveur de l'égalité entre hommes et femmes dans les instances de décision et au niveau des postes électifs par la Conférence des Chefs d'État de l'Union Africaine, adoptée en 2004 ; le Protocole à la Charte Africaine des Droits de l'Homme et des Peuples, relatif aux droits de la femme adopté en 2003. En outre, les chefs d'État et de gouvernement du NEPAD ont convenu de rappeler que l'égalité entre les hommes et les femmes et l'habilitation de ces dernières constituent des facteurs essentiels de l'éradication de la pauvreté et pour le développement durable. Ils se sont

engagés ainsi à prendre en compte les problèmes spécifiques des femmes pauvres dans toutes les actions engagées contre la pauvreté.

Même si depuis quelques temps des avancées sont notées, notamment en matière de parité dans l'accès à l'éducation et à la formation, en matière d'autonomisation des femmes et de leur participation à la vie politique, des difficultés et contraintes importantes subsistent encore, surtout en milieu rural et concernant la participation aux activités économiques agricoles et non agricoles. Les contraintes les plus importantes sont l'accès à la terre, l'accès aux autres facteurs de production, l'accès au financement, les barrières culturelles et sociales, etc. Relativement à ces dernières contraintes, l'on note en effet l'existence de pratiques culturelles qui limitent ou réduisent au néant la participation économique et l'épanouissement des femmes.

c) How do you expect this **evidence will be used/assimilated** effectively into the relevant policy decision/advisory processes? Be as precise as possible, indicating the specific decisions or recommendations that have to be made by your institution.

Are you aware of any cost- or **budget-related considerations** that should be taken into account in the context of these policy decision/advisory processes?

Also, justify the timing of the proposed research project - how does it fit with the **calendar** of the related policy decision/advisory processes?

Insert your text here – max 300 words

Les nouvelles connaissances doivent être utilisées dans le sens de nous aider à mieux orienter nos politiques de développement, à réduire la pauvreté, à accompagner la couche vulnérable de la population en particulier les femmes rurales.

A travers une bonne prise en compte de l'ensemble des recommandations qui sortiront de cette recherche, l'UCSPE et le CEPOD veilleront à attirer l'attention de des décideurs politiques sur les mesures de politique économique à prendre.

En ce qui concerne les considérations budgétaires, le gouvernement devra toujours veiller à une meilleure rationalisation des dépenses, développer de nouvelles sources internes de financement en faveur des femmes rurales tout en évitant de creuser en profondeur le déficit budgétaire.

Par rapport à l'échéancier du projet de recherche, nous pensons que les résultats seront disponibles à bonne date et seront au mieux exploités dans les processus décisionnels.

4.3. Stakeholder mapping and dissemination

List all other potential stakeholder institutions, i.e., institutions that you consider as potential users of the same research evidence (other than your own). These can include other ministries and government agencies, as well as civil society organizations, NGOs, private sector, etc.

Name of institution/organization #1	Direction du Plan
List the key representatives or target research users (policy makers or influencers)	
<ul style="list-style-type: none"> - Directeur du Plan de la Direction Générale de la Panification et des Politiques Économiques (DGPPE) - Directeur de la Panification Générale 	
Describe briefly why and how you believe this institution could use the evidence	
<p><i>Insert your text here – max 100 words</i></p> <p>La direction du Plan est une institution de la Direction Générale de la Panification et des Politiques Économiques (DGPPE). Elle dirige généralement les activités de planification au niveau national et au niveau déconcentré, mais aussi supervise la planification du développement à l'échelle locale dont la responsabilité revient aux collectivités territoriales qui ont la prérogative de la conduite de stratégies de développement au niveau local. En outre, la Direction du Plan appuie les différents ministères sectoriels dans l'élaboration de leurs lettres de politique sectorielle de Développement (LPSD).</p> <p>A ce titre, elle pourrait utiliser les résultats du projet, pour enrichir les LPSD des ministères, mais aussi les documents de planification locale.</p>	

Name of institution/organization #2	Observatoire National de la Parité
List the key representatives or target research users (policy makers or influencers)	
<ul style="list-style-type: none"> - Présidente de l'observatoire - Name, title/position 	
Describe briefly why and how you believe this institution could use the evidence	
<i>Insert your text here – max 100 words</i>	
<p>L'Observatoire National de la Parité est une institution rattachée à la présidence de la république et qui a pour mission de suivre, d'évaluer et de formuler des propositions tendant à promouvoir la parité entre les hommes et les femmes dans les politiques publiques. Elle a ainsi un droit et une obligation de regard sur tout ce qui peut toucher à la promotion de l'égalité des sexes et l'autonomisation des femmes. A ce titre et dans le cadre des conseils qu'il donne au président de la république, il pourrait être intéressé par l'utilisation des résultats du projet de recherche.</p>	

Name of institution/organization #3	MINISTÈRE DE LA FEMME, DE LA FAMILLE, DU GENRE ET DE LA PROTECTION DES ENFANTS
List the key representatives or target research users (policy makers or influencers)	
<ul style="list-style-type: none"> - Ministre - Directeur de l'Équité et de l'Égalité du Genre - Directeur du Fonds national de l'Entreprenariat féminin; Directeur du Fonds national de Crédit pour les Femmes 	
Describe briefly why and how you believe this institution could use the evidence	
<i>Insert your text here – max 100 words</i>	
<p>Le Ministère de la femme, de la famille, du Genre et de la protection des enfants a la responsabilité de conduire la politique Genre de l'État du Sénégal. A ce titre, il s'intéresse à toutes les activités qui touchent à l'épanouissement des femmes, à leur autonomisation. Il a en charge le suivi de la mise en œuvre de la Stratégie Nationale pour l'Équité et l'Égalité de Genre. De la même manière, il a la prérogative de proposer, pour adoption au niveau national, mais aussi de mettre en œuvre des schémas et stratégies d'autonomisation des femmes. Les résultats et recommandations du projet</p>	

de recherche serviront ainsi à mieux orienter les politiques économiques destinées à assurer l'autonomisation des femmes évoluant en milieu rural.

4.4. Outline your engagement/dissemination strategy

Describe how you intend to engage with these other stakeholder institutions (listed in 4.3) to ensure that they:

- 1) Contribute to informing the research work (i.e. consultations)
- 2) Are kept informed of the research progress and findings

Insert your text here – max 150 words

La stratégie de dissémination que nous comptons utiliser repose sur différentes approches.

- Dans le cadre des rapports d'activités à soumettre à la hiérarchie, les résultats du projet seront présentés.
- Dans le cadre des Journées de l'Économie Sénégalaise que le CEPOD organise périodiquement, le projet sera présenté, ainsi que les résultats qu'il a permis de trouver.
- Les résultats feront l'objet d'un atelier de présentation dirigé par le CEPOD et l'UCSPE avec la présence des différents services de l'État pouvant avoir un rôle à jouer dans la mise en application des recommandations.
- Dans toutes les activités d'élaboration ou de formulation de stratégies de développement en rapport avec les thématiques abordées par le projet, les résultats et les recommandations seront présentés.
- Le projet pourra être l'objet d'une Note de Politique à adresser à la hiérarchie (Directeur Général de la Planification et des Politiques Économiques ; Ministre de l'Économie, du Plan et de la Coopération).
- Dans le cadre de l'élaboration des Lettres de Politique Sectorielle de Développement, les conclusions ou recommandations du projet seront utilisées pour une mise en application effective

- Dans le cadre des revues annuelles conjointes, les résultats du projet seront partagés
- Les résultats seront publiés dans la revue échos finance magazine du Ministère des finances et du budget

SECTION V – OTHER CONSIDERATIONS

5.1. Describe any ethical, social, gender or environmental issues or risks that should be noted in relation to your proposed research project.

A priori, there are no ethical, social, gender or environmental issues or risks in relation to our proposed research project.

5.2. References and plagiarism:

Applicants should be very careful to avoid any appearance of plagiarism. Any text of five or more consecutive words that is borrowed from another source should be carefully contained between quotation marks with a reference to the source (including page number) immediately following the quotation. It is essential that we be able to distinguish what you have written yourself from what you have borrowed from elsewhere.

Note also that copying large extracts (such as several paragraphs) from other texts is not a good practice, and is usually unacceptable. For a fuller description of plagiarism, please refer, for example, to the following website:

- <http://writing.yalecollege.yale.edu/advice-students/using-sources/understanding-and-avoiding-plagiarism>

PEP will be using a software program to detect cases of plagiarism.