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► Employment impact assessment of parts of the NASIRA risk-sharing facility



► **Employment impact assessment of parts of the NASIRA risk-sharing facility**

Author / Gabriel Michelena

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ISBN 9789220416402 (web PDF)

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► Acronyms and abbreviations

CGS	credit guarantee scheme
EFSD	European Fund for Sustainable Development
EmplA	employment impact assessment
EU	European Union
EUR	Euros
FMO	Entrepreneurial Development Bank (Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden N.V.)
GTAP	Global Trade Analysis Project
IFI	international financial institution
ILO	International Labour Office/Organization
IOT	input-output table
MSMEs	micro, small, and medium enterprises
SAM	social accounting matrix
TAF	technical assistance facility

► Acknowledgements

This report has been produced under the overall guidance of Mito Tsukamoto, Chief of the ILO Employment in Investments branch and Ralf Krueger, Chief Technical Adviser in this branch. The author would like to thank Leah Situnayake (FMO), Guannan Miao, and Audrey Goetz (both ILO) for their valuable comments and suggestions on earlier versions of this report.

Executive summary

A central task of the ILO STRENGTHEN2¹ project is to conduct employment impact assessments of public investments in sub-Saharan Africa, with the goal of promoting the creation of more and better jobs. Among the mandates of the project is to conduct a series of in-depth employment impact assessments on investment projects supported by the European Union (EU).

The EU's involvement in Africa encompasses a range of initiatives, from direct investment to the provision of financial instruments. One of the most frequently utilized instruments is the credit guarantee scheme (CGS), which provides assistance to local banks in leveraging loans. In this regard, the NASIRA project is a particularly relevant example of this kind of intervention. NASIRA is a risk-sharing facility designed to provide a second-loss guarantee covering up to 95 per cent of the losses of the underlying portfolio of loans. It is funded by the EU and the Dutch Government. This innovative facility encourages banks to extend loans to individuals and businesses that are typically deemed too risky, such as micro, small and medium enterprises (MSMEs), young entrepreneurs, women, and migrant entrepreneurs. Since its inception under the European Fund for Sustainable Development (EFSD) in 2019, NASIRA has aimed to support MSMEs across Africa and the European Union's neighbouring countries. Over the past few years, the facility has demonstrated significant progress, leveraging valuable lessons learned to inch closer to its ambitious target of mobilizing a portfolio of €500 million in loans to underserved MSMEs by August 2024.

An ex-ante employment impact assessment (EmpIA) of parts of the NASIRA portfolio is conducted in this study. The portion of the NASIRA facility included in this assessment concerns the funding to three banks for the support of MSMEs, of which two are in Kenya and one in South Africa. Given the available information, this assessment provides only estimates for non-direct employment. These employment effects are defined as the employment generated from the purchase of inputs required for scaling up production, after the loans have been granted, together with the jobs created due to increased income of employees.²

The two first banks received from the Dutch Entrepreneurial Development Bank (FMO) a total of €89 million in the year 2020, whereas the third bank received around €14 million in 2021. To consider these values in relative terms, new investments made through the NASIRA programme in 2022 amounted to €78 million, after €82 million in 2021.

This assessment estimates the creation of around 12,900 jobs, considering the indirect and induced effects of the loans granted to individual firms. Considering the structure of labour demand resulting from these loans, and using the input-output multipliers, a positive bias in job creation for women and skilled workers is estimated. On the other hand, the analysis also finds evidence of a negative bias against formal and youth employment.

¹ For further information on STRENGTHEN2 see www.ilo.org/strengthen2.

² The traditional input-output related literature would refer to these as indirect and induced effects. Here they are interchangeably referred to as either "non-direct" or "indirect" effects.

Résumé exécutif

L'une des tâches principales du projet STRENGTHEN2³ de l'OIT est de réaliser des évaluations d'impact sur l'emploi d'investissements publics en Afrique subsaharienne, dans le but de promouvoir la création d'emplois plus nombreux et de meilleure qualité. Le projet a notamment pour mission de réaliser une série d'évaluations approfondies de l'impact sur l'emploi de projets d'investissement soutenus par l'Union européenne (UE).

L'engagement de l'UE en Afrique englobe une série d'initiatives, allant de l'investissement direct à la mise en place d'instruments financiers. L'un des instruments les plus fréquemment utilisés est le système de garantie de crédit (SGC), qui aide les banques locales à obtenir des prêts. À cet égard, le projet NASIRA est un exemple particulièrement pertinent de ce type d'intervention. NASIRA est un mécanisme de partage des risques conçu pour fournir une garantie de deuxième perte couvrant jusqu'à 95 pour cent des pertes sur le portefeuille des prêts sous-jacents, financé par l'UE et le gouvernement néerlandais. Ce mécanisme innovant encourage les banques à accorder des prêts aux personnes et aux entreprises qui sont généralement considérées comme trop risquées, telles que les MPME (micro, petites et moyennes entreprises), les jeunes entrepreneurs, les femmes et les entrepreneurs immigrés. Depuis sa création dans le cadre du Fonds européen de développement durable (EFSD) en 2019, NASIRA vise à soutenir les MPME en Afrique et dans les pays voisins de l'Union européenne. Au cours des dernières années, le programme a fait preuve de progrès significatifs, tirant parti de précieux enseignements pour se rapprocher de son objectif ambitieux de mobiliser un portefeuille de 500 millions d'euros de prêts aux MPME peu couvertes d'ici août 2024.

Une évaluation ex ante de l'impact sur l'emploi de certaines parties du portefeuille NASIRA est réalisée dans cette étude. La partie du projet NASIRA incluse dans cette évaluation concerne le financement de trois banques pour le soutien des MPME, dont deux au Kenya et une en Afrique du Sud. Compte tenu des informations disponibles, cette évaluation ne fournit que des estimations concernant l'emploi non direct. Ces effets non directs sur l'emploi sont définis comme l'emploi généré par l'achat des intrants nécessaires à l'augmentation de la production, après l'octroi des prêts, plus les emplois créés en raison de l'augmentation des revenus des employés.

Les deux premières banques ont reçu de FMO un total de 89 millions d'euros en 2020, tandis que la troisième banque a reçu environ 14 millions d'euros en 2021. Pour considérer ces valeurs en termes relatifs, les nouveaux investissements réalisés par le biais du programme NASIRA en 2022 se sont élevés à 78 millions d'euros, faisant suite à 82 millions d'euros en 2021.

Cette évaluation estime la création d'environ 12,900 emplois, compte tenu des effets indirects et induits des prêts accordés aux différentes entreprises. Etant donné la structure de la demande de main-d'œuvre résultant de ces prêts, et en utilisant les multiplicateurs d'entrées-sorties, on estime qu'il y a un biais positif dans la création d'emplois pour les femmes et les travailleurs qualifiés. D'autre part, l'analyse met également en évidence un biais négatif en faveur de l'emploi formel et de l'emploi des jeunes.

³ Voir www.ilo.org/strengthen2.

1. Introduction

This assessment has been undertaken as part of the ILO's STRENGTHEN2⁴ project, a central task of which is to conduct employment impact assessments of public investments in sub-Saharan Africa, with the goal of promoting the creation of more and better jobs. Among the mandates of the project is to conduct a series of in-depth employment impact assessments on investment projects supported by the European Union (EU).

The EU's involvement in Africa encompasses a range of initiatives, from direct investment to the provision of financial instruments. One of the most frequently utilized instruments is the credit guarantee scheme (CGS), which provides assistance to local banks in leveraging loans. In this regard, the NASIRA project is a particularly relevant example of this kind of intervention.

An ex-ante employment impact assessment (EmpIA) of parts of the NASIRA portfolio is conducted in this study. The portion of the NASIRA facility included in this assessment concerns the funding to three banks for the support of micro, small and medium enterprises (MSMEs), of which two are in Kenya and one in South Africa.

As the data collected provide no estimation of the employment impacts of the new loans, an ex-ante assessment has been conducted. Typically, this type of assessment provides an indicative overview of employment creation in the absence of additional information regarding the bill of quantities or employment reports. In most impact assessments conducted by STRENGTHEN2, these inputs serve as the primary source of information for calculating the employment generated over the course of the project (Miao et al. 2024). The bill of quantities, which outlines the inputs required by the project, enables the distribution of the total project cost across different economic sectors to be determined.

In the context of credit guarantee schemes (CGS), the direct effect refers to the additional number of jobs created directly because of loans made available to businesses, which would not have been made without the support of the credit guarantees. In other words, this would be equal to the additional number of people hired directly by the businesses that benefited from the guarantee-supported loans (Miao 2024).

In the absence of this data, the available information allows two types of employment impacts – indirect and induced – to be consistently obtained. The indirect effect refers to the number of jobs created in the supply chain due to increased demand from businesses that received the loans, for example, purchases of intermediate inputs or capital goods/services. The induced effect refers to the jobs created as a result of increased employee income (due to indirect effects), which in turn generate additional demand through increased spending (Chacaltana et al. 2020).

For the sake of simplicity, both the indirect and induced effects are combined as the short-term non-direct effects. In summary, these non-direct employment effects are defined as the employment generated from the purchase of inputs required for scaling up production, after the loans have been granted, plus the jobs created because of increased income of employees.

The report has the following structure: Section 2 provides an overview of the NASIRA sharing facilities. Section 3 highlights the key information about the parts of NASIRA evaluated in this report. Section 4 describes the model used and the underlying data. Section 5 presents and discusses the employment impact assessment results. Section 6 concludes the report.

⁴ For further information on STRENGTHEN2 see www.ilo.org/strengthen2.

2. Overview of the NASIRA sharing facilities

The NASIRA facility, managed by FMO and funded by the EU and the Dutch Government, is an innovative risk-sharing initiative designed to support financial inclusion for underserved entrepreneurs in sub-Saharan Africa and the European Union's neighbouring regions (FMO 2021). By providing guarantees of up to 95 per cent on eligible loan portfolios held by local banks and microfinance institutions, NASIRA reduces the perceived financial risks, enabling these institutions to extend loans to high-potential but typically overlooked groups, including young, female and migrant entrepreneurs. This facility is designed to transform the financing landscape for individuals and micro, small and medium-sized enterprises (MSMEs) that might otherwise encounter difficulties in securing funding due to risk perceptions or a lack of credit history.

The NASIRA structure, as a synthetic securitization, provides an effective mechanism for bridging the financing gap. It achieves this by leveraging guarantees to encourage banks to engage with non-traditional markets, thereby generating inclusive economic growth. The EU is a key stakeholder in the NASIRA facility, acting as both a primary funder and strategic partner. The European Fund for Sustainable Development (EFSD) has allocated substantial resources to NASIRA, including a second-loss guarantee tranche that significantly strengthens the facility's risk-sharing capabilities.

The NASIRA initiative has been developed with the specific objective of optimizing the lending process for local banks, thereby facilitating their expansion into previously underserved market segments. To illustrate the procedure, the NASIRA Loan Portfolio Guarantee enables a bank seeking to expand its portfolio of loans to MSMEs to benefit from a risk-sharing structure comprising a first loss and a second loss tranche.⁵ The bank assumes responsibility for the initial tranche, covering early defaults, while FMO covers further losses once the first tranche is depleted. The bank can easily upload portfolio data each month using FMO's cloud-based platform, which facilitates a streamlined reporting and monitoring process. As a result, the scheme has enabled the bank to capture a new, high-potential market segment while mitigating the associated credit risks.

In response to the challenges posed by the global pandemic, NASIRA underwent an expansion in 2020 to provide support to small businesses affected by the pandemic. This expansion was made possible by an additional €25 million from the EFSD and €2.5 million from the Dutch Ministry of Foreign Affairs' MASSIF fund. This expansion enabled NASIRA to respond rapidly to emerging needs. In addition to its financial guarantees, NASIRA includes a technical assistance facility (TAF), which provides financial institutions with the tools and knowledge they need to serve NASIRA's target groups effectively. This TAF addresses the skills gaps within these institutions, enhancing their ability to assess the needs of small clients, integrate sustainability practices, and adopting financial technology (fintech) solutions to improve access and reduce costs.

⁵ For further details see <https://www.fmo.nl/how-nasira-works>.

3. Modelling the employment impact assessment of NASIRA

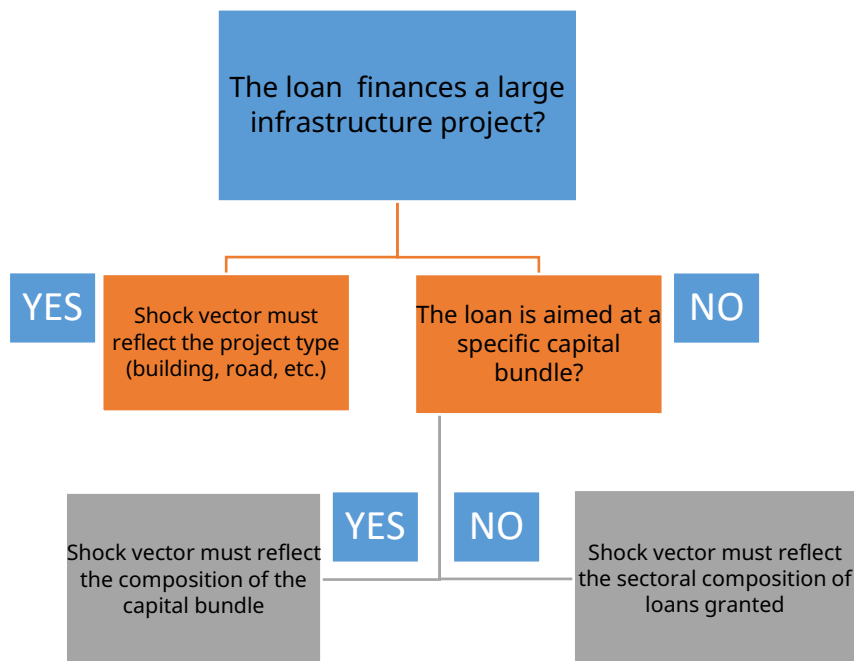
In terms of impact assessment, the nature of guarantees to back loans to MSMEs differs from that of other types of investment projects (those not related to MSME loans). The most noticeable difference is that it is challenging to quantify the number of direct jobs created through credit loans to MSMEs. This is because it is costly and time-consuming to collect employment data from all businesses that have received guarantee-backed loans. Even after such data have been collected, it is not possible to simply correlate the total number of employees in a business with the number of guarantees provided, because not all employment is created due to the availability of guarantee-backed loans. Another issue is that the loans granted to MSMEs are relatively small, so it is challenging to assume that these amounts will lead to significant purchases of capital goods and construction, as is typically seen in large infrastructure projects. Given the average loan size of approximately €8,000, it is probable that the funds will be used to purchase additional intermediate inputs and labour, thereby enabling production to be scaled up.

Considering these issues, a basic criterion has been developed to decide how to approach the impacts of financial instruments. Thus, figure 1 provides an overview of the decision-making process. The first step is to assess the purpose of the loan. When the loan finances a major infrastructure project, it is advisable to apply the standard input-output approach (Miao et al. 2024), creating a simulation in which the demand change reflects the sectoral composition of the investment project (such as roads, ports, buildings and so on).

Alternatively, it must be asked if the loan is intended for a specific capital bundle (such as solar panels, wind farm, vehicles, among others). If the answer is yes, the optimal approach would be to model a shock in the final demand, with the sectors activated being those explicitly targeted by the loan programme or with a cost structure reflecting the specified capital bundle.

In the event that the loan programme is not focused on a specific capital bundle, but the banks collect data regarding the sectoral allocation of loans granted, figure 1 indicates the use of the input-output or SAM model, with a particular emphasis on the impacts of changes in the demand for those activities. As a result, the non-direct effects can be estimated using the value of loans granted and the cost structure of the sectors that benefit. This approach is more closely aligned with the data available for the impact assessment of parts of the NASIRA project.

► **Figure 1. Decision tree to determine the appropriate scenario design**



Source: Author's elaboration.

In this assessment, the information about NASIRA comes from FMO,⁶ which provided data about the sectoral allocation of the loans and the amount granted to each firm. The facility worked with two banks in Kenya and one in South Africa. These banks' missions are to support small and medium enterprises, concentrating on driving sustainable business growth. Due to the sensitive nature of the information, their names are anonymized; they will be labelled as Customer 1 (South Africa), Customer 2 (Kenya), and Customer 3 (Kenya).

Following the previous methodology, it is implicitly assumed that each euro of credit is used to purchase value-added plus intermediate inputs to upscale output. Considering only the non-direct effects of the programme, a final demand shock is constructed that reflects the sectoral composition of the loans.

The national economies of Kenya and South Africa are represented by the input-output tables (IOT) taken from the GTAP (version 11),⁷ which provides the basic accounting structure of the model as well as the "base year" data for calibration and simulation. Employment-related parameters are obtained from satellite accounts containing employment data by occupation and skills from ILOSTAT with breakdowns by formality, age group and sex.

One of the key applications of the IOT is to construct an economic model that allows the creation of counterfactual scenarios, and to link changes in final demand to potential shifts in output and employment (Chacaltana et al. 2020). This fundamental model is based on the Leontief inverse matrix. The Leontief inverse, also known as the "total requirements matrix", represents the direct and indirect requirements of output in each sector that is produced to satisfy a unit of final demand. The sum of all

⁶ <https://www.fmo.nl/NASIRA>.

⁷ <https://www.gtap.agecon.purdue.edu/databases/v11/>.

the elements in a single column of the matrix is known as an “output multiplier”. The output multiplier represents the total amount of output required to satisfy a unit of final demand.

Furthermore, the multipliers derived from the total requirements matrix can be used to assess the direct and indirect employment effects, using the corresponding labour coefficients (labour divided by the initial level of output). A typical example would be an initial increase in final demand for construction services due to increased government spending on infrastructure. This would in turn also trigger an increase in demand from other sectors that supply inputs to the construction sector, such as cement, gravel and steel. Using the output multipliers and the labour coefficients, these output effects can then be used to estimate the corresponding impacts on employment demand.

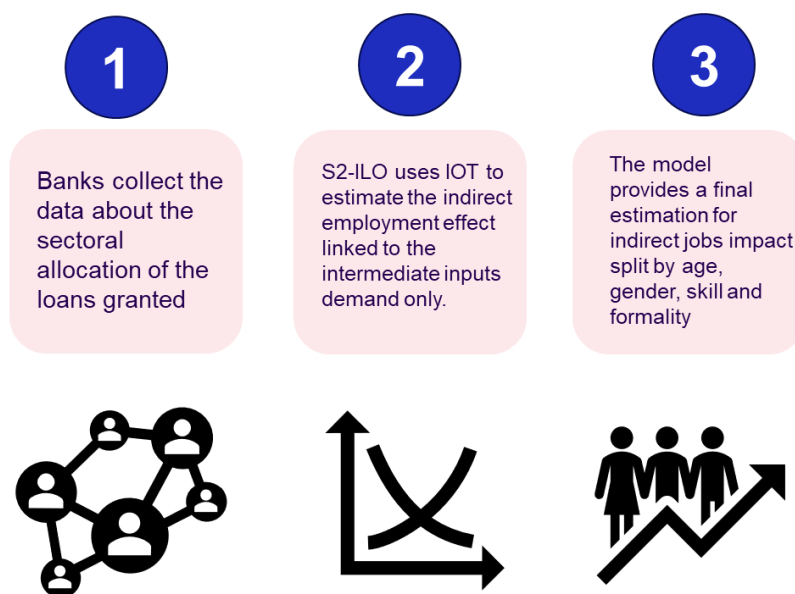
Figure 2 summarizes the process of the credit flow, starting from the funds provided by the international financial institutions (IFIs) up to the final loans granted to individual firms. In figure 3, the data collected by the banks is used, together with the input-output multipliers, to obtain the indirect effects of the credit facilities.

► **Figure 2. Summary of the loan allocation process**



Source: Author's elaboration.

► **Figure 3. Summary of the methodology used to estimate the employment effects of NASIRA**



Source: Author's elaboration.

4. Non-direct employment effects of parts of NASIRA

This section begins with an analysis of the composition of loans within the NASIRA programme, with a specific focus on the distribution across various sectors for three distinct customers (banks). This section of the report provides a comprehensive examination of loan distributions, delineating the primary sectors that have received financial backing and offering an estimation of key summary statistics, including the number of loans and the average amount granted.

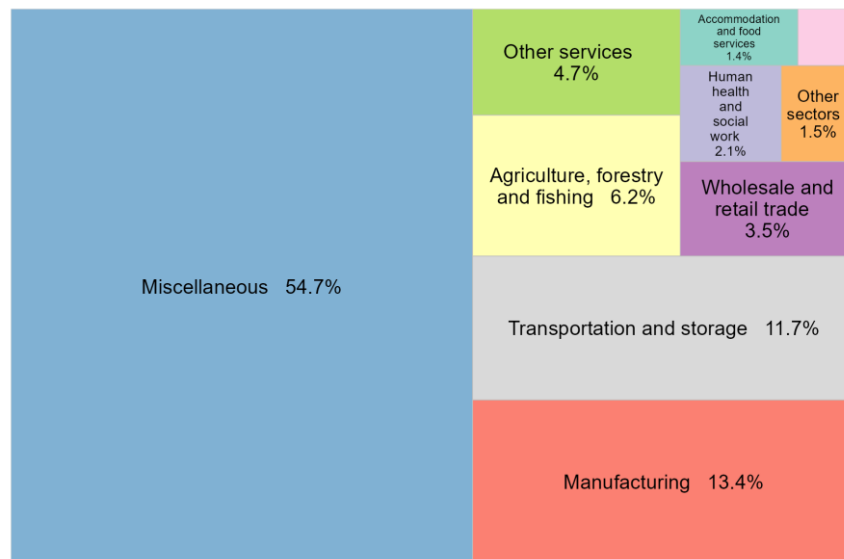
Table 1 illustrates that the average loan amount for the 2,185 loans granted by Customer 1, based in South Africa, was approximately €15,300. The minimum loan value was €156, while the maximum was €308,833. Customer 1 provided approximately €33.4 million in funding to its clients (MSMEs) through this programme. Figures 4 and 5 illustrate that miscellaneous activities were the primary recipients for Customer 1, accounting for approximately 55 per cent of the total loans granted. Meanwhile, the manufacturing and transport sectors received around €4.5 million, reflecting a substantial investment aimed at bolstering production and infrastructure. In contrast, the agriculture sector was allocated approximately €2 million, whereas other services activities received around €1.6 million.

► **Table 1. Loans for Customer 1 (South Africa)**

Sector	No. of loans	Mean (€)	Std. dev. (€)	Min. (€)	Max. (€)	Total (€)
Agriculture	63	33 141	45 508	425	196 387	2 087 883
Manufacturing	609	7 356	19 408	204	282 775	4 479 804
Miscellaneous	550	33 244	51 562	156	308 833	18 284 200
Other service activities	963	8 907	19 662	237	201 960	8 577 441
Total	2 185	15 299	33 588	156	308 833	33 429 328

Note: "Miscellaneous" refers to loans that could not be assigned to a specific sector by the bank.
Source: Author's calculations based on data received from FMO.

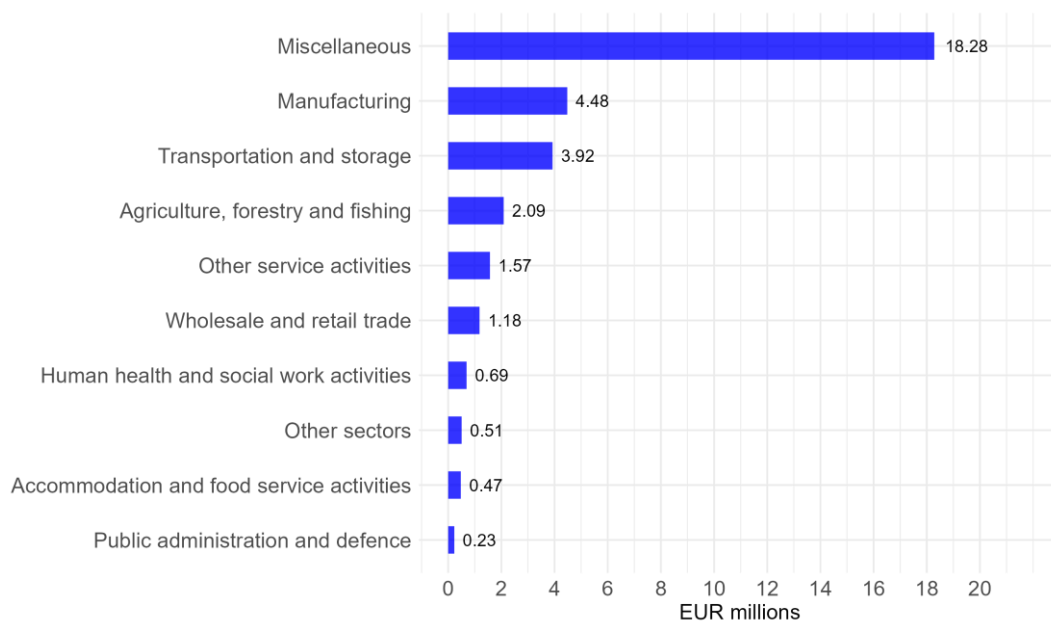
► **Figure 4. Sectoral distribution of loans for Customer 1 (South Africa)**



Note: The unlabeled box in the figure represents the minor participation of other categories, namely public administration and defence.

Source: Author's calculations based on data received from FMO.

► **Figure 5. Project expenditure breakdown, by sector, Customer 1 (South Africa)**



Note: "Miscellaneous" refers to loans that could not be assigned to a specific sector by the bank.

Source: Author's calculations based on data received from FMO.

In the case of Customer 2, as illustrated in figures 6 and 7, the manufacturing and agriculture sectors were the primary beneficiaries of the loans, accounting for 98 per cent of the €56.7 million granted. The manufacturing sector received a significant allocation of approximately €34 million, while the agriculture sector received approximately €21.5 million to boost output. In comparison, other sectors, including other service activities, transportation, real estate activities, construction, accommodation and financial activities, received only 85 loans, amounting to approximately €1.4 million.

Table 2 presents an overview of the distribution of individual loans. The mean loan amount for the 15,818 loans granted was approximately €3,600, with a minimum of €37 and a maximum of €222,133. The bank provided a total of approximately €56.7 million in financing to its MSME clients through this programme. The manufacturing and agricultural sectors account for 7,199 and 8,534 loans, respectively, which contribute to substantial totals of €55.362 million. Despite having only 18 loans, the construction sector has an average loan size of €9,544, while other service activities exhibit a mean loan of €18,082, contributing to €1.2 million in total.

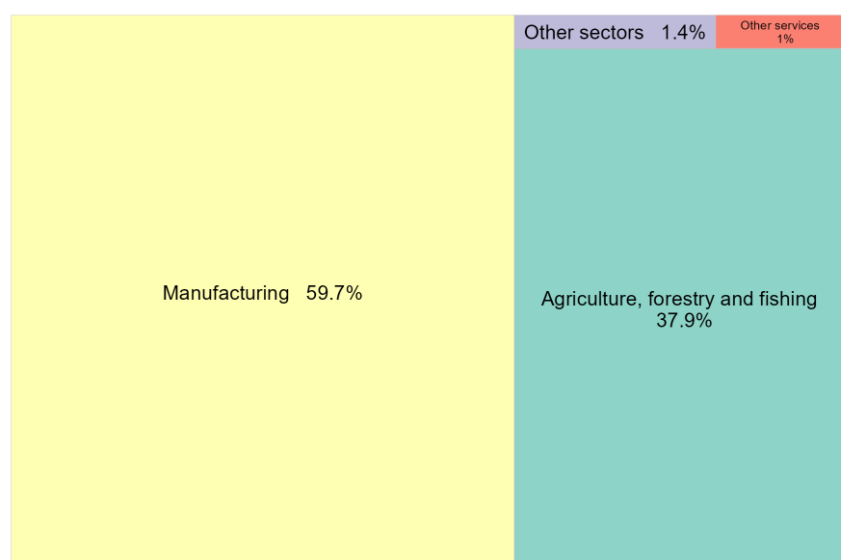
► **Table 2. Loans for Customer 2 (Kenya)**

Sector	No. of loans	Mean (€)	Std. dev. (€)	Min. (€)	Max (€)	Total (€)
Agriculture	8 534	2 520	6 363	37	162 157	21 505 680
Construction	18	9 544	13 286	518	51 831	171 792
Manufacturing	7 199	4 703	11 702	74	222 133	33 856 897
Other service activities	67	18 082	33 374	518	162 898	1 211 494
Total	15 818	3 587	9 545	37	222 133	56 745 863

Note: "Miscellaneous" refers to loans that could not be assigned to a specific sector by the bank.

Source: Author's calculations based on data received from FMO.

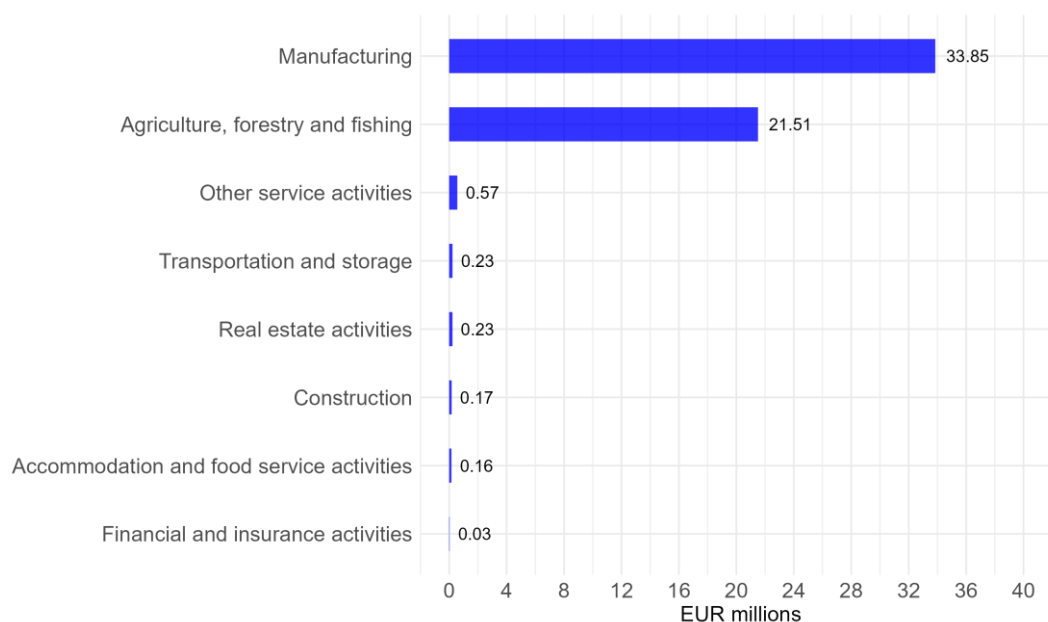
► **Figure 6. Sectoral distribution of loans for Customer 2 (Kenya)**



Note: The "other sectors" box in the figure represents the minor participation of other categories, namely transportation, real estate activities, construction, accommodation, and financial services.

Source: Author's calculations based on data received from FMO.

► **Figure 7. Project expenditure breakdown by sector, Customer 2 (Kenya)**



Source: Author's calculations based on data received from FMO.

Table 3 sets out the distribution of loans for Customer 3. The data demonstrate that the mean value of the 1,653 loans was approximately €8,500, with a minimum of €86 and a maximum of €128,906. Customer 3 provided approximately €14.1 million in loans to its MSME clients under this programme, representing the lowest value of the three customers analysed. The data on the distribution of loans shows a notable concentration in the sectors of miscellaneous and other service activities, which collectively account for over 80 per cent of the total loans. A total of 625 loans were granted within the miscellaneous category, representing an investment of €4.94 million. Conversely, the largest total amount, €6.8 million, was secured by other service activities from 753 loans. Despite the smaller number of loans, the manufacturing and construction sectors stand out for their higher average loan sizes of €10,108 and 10,728, respectively. In contrast, the agriculture sector received 127 loans with a lower average loan size of €6,525, contributing a total of €828,675.

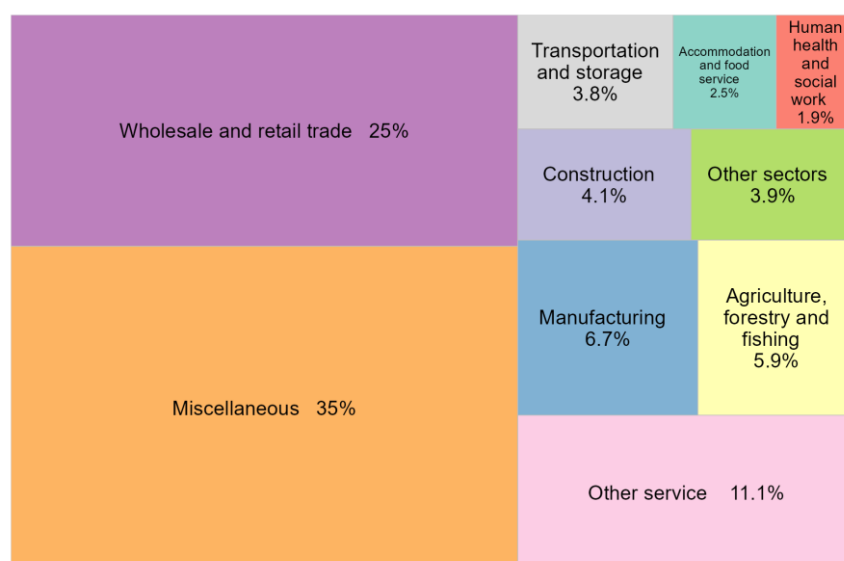
The data presented in figures 8 and 9 illustrate that the “miscellaneous” category constituted the primary recipients of the loan allocation, accounting for approximately 35 per cent of the total. The trade sector received approximately €3.5 million, 25 per cent of the total. Manufacturing and agriculture were allocated approximately €1 million each. Finally, 4.1 per cent of loans were allocated to the construction sector. The sectors with the least loan allocations were accommodation activities and human health, which together constituted less than 5 per cent of the total amount granted.

► **Table 3. Loans for Customer 3 (Kenya)**

Sector	No. of loans	Mean (€)	Std. dev. (€)	Min. (€)	Max. (€)	Total (€)
Agriculture	127	6 525	10 174	86	54 688	828 675
Construction	54	10 728	9 105	781	39 063	579 312
Manufacturing	94	10 108	15 384	273	78 125	950 152
Miscellaneous	625	7 908	11 627	186	128 906	4 942 500
Other service activities	753	9 038	13 423	137	117 188	6 805 614
Total	1 653	8 534	12 563	86	128 906	14 106 253

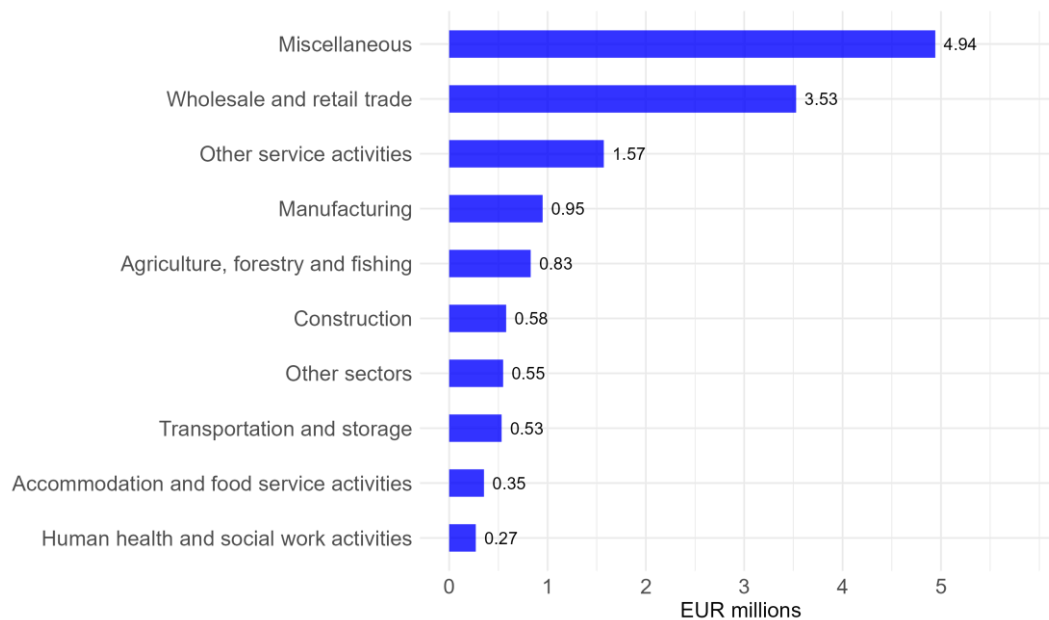
Note: "Miscellaneous" refers to loans that could not be assigned to a specific sector by the bank.
Source: Author's calculations based on data received from FMO.

► **Figure 8. Sectoral distribution of loans for Customer 3 (Kenya)**



Source: Author's calculations based on data received from FMO.

► **Figure 9. Project expenditure breakdown by sector, Customer 3 (Kenya)**



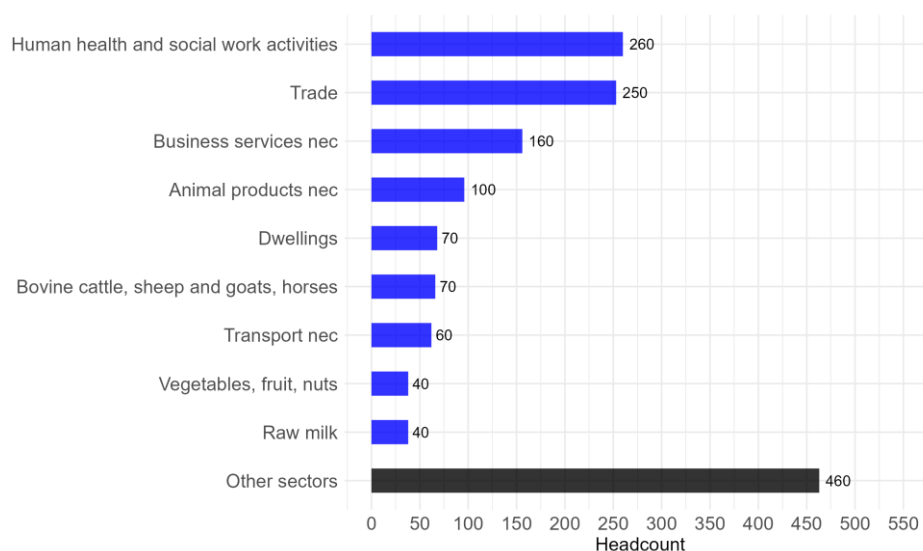
Source: Author's calculations based on data received from FMO.

5. Estimating the non-direct effects using input-output multipliers

This section presents an analysis of the non-direct employment effects of parts of the NASIRA programme, with a particular focus on the allocation of loans across different sectors and the subsequent impact on output and employment. To perform the estimation, data from FMO was used which includes sectoral loan distribution from the two banks in Kenya and one in South Africa. The initial shock is represented by the sectoral distribution of the loans allocated by the customer (bank). The data, provided by FMO, were adjusted to 2017 prices to account for inflation. Simulations were conducted using input-output (IO) multipliers, with the dataset sourced from GTAP 11, which has 2017 as its base year. As already mentioned, this analysis focuses exclusively on estimating the non-direct employment effects.

Starting with the loans granted by Customer 1, the IO model estimated the **creation of around 1,500 non-direct jobs** (headcount, rounded). As depicted in figure 10, the majority of these jobs were located in health (17.3 per cent), trade (16.9 per cent), business services (10 per cent) and animal products (6 per cent).

► **Figure 10. Temporary non-direct jobs generation by main sector, Customer 1 (South Africa)**



Note: "Other sectors" include the sum of the remaining 56 activities in the model.

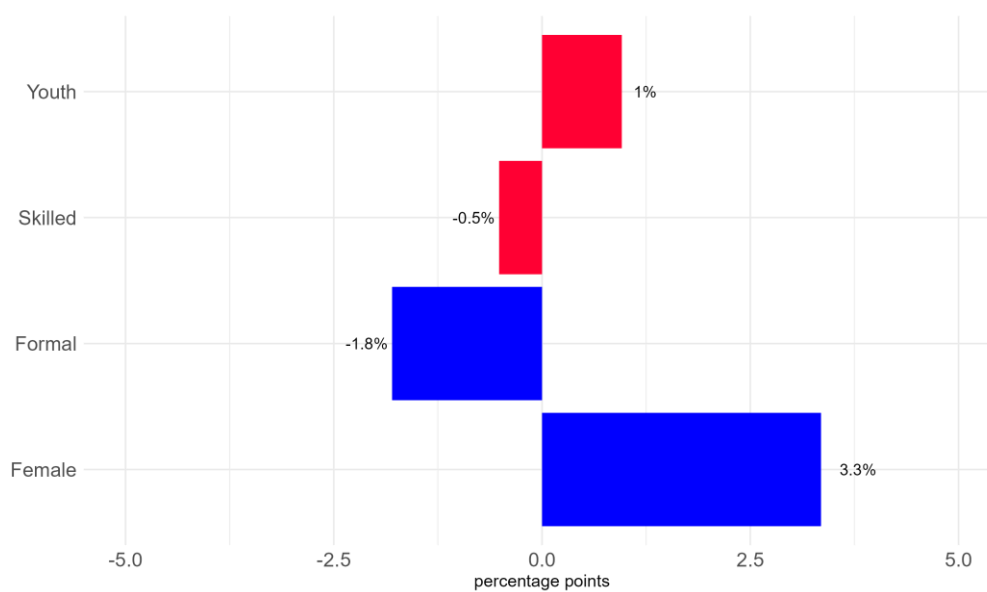
Source: Author's calculations.

Figure 11 shows the biases of the projected **non-direct** job creation relative to the average structure of the labour market. Each of these values is estimated as the difference between the employment composition projected by the model and the average composition throughout the economy. The temporary **non-direct** employment effects projected by the model showed a small negative bias against formal and skilled workers. Additionally, the model estimated a positive bias in favour of female and youth workers relative to the national average. In this report, youth are defined as individuals between the ages of 15 and 24.

The result is mainly explained by the induced effects of the project on household consumption, with workers spending their wages largely on services such as health or trade, which use skilled and female

labour intensively. On the other hand, the absence of the construction sector in the list, a highly unskilled and male intensive activity, contributed to this result.⁸

► **Figure 11. Employment bias by age, sex, formality and skill for non-direct jobs, Customer 1 (South Africa)**

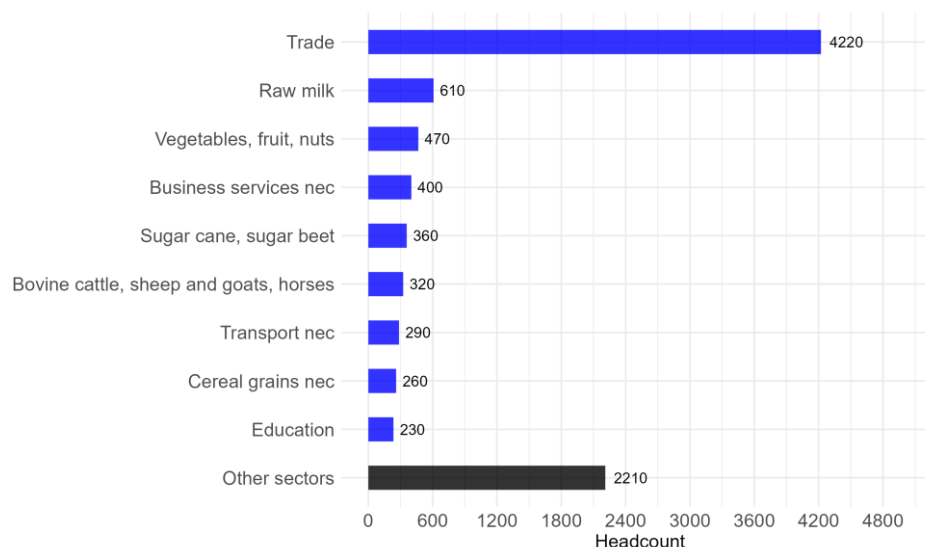


Note: The biases are in comparison to the average shares throughout the national economy.
Source: Authors' calculation.

Figure 12 illustrates the impact of loans granted by Customer 2, located in Kenya. It is estimated that the loans granted to MSMEs will result in the creation of approximately **9,360 non-direct jobs** (headcount, rounded). The simulations indicate that the majority of these jobs are located in trade (46.5 per cent), raw milk (6.5 per cent), vegetables (5 per cent) and business services (4.3 per cent). The sectors that drive growth in employment are primarily those that are directly linked to the consumption basket of households or have relevant forward linkages. A robust forward linkage indicates that the sector in question is incorporated into the cost function of most economic activities. Examples of such sectors usually include trade, transportation and energy.

⁸ Most of the infrastructure projects evaluated by the STRENGTHEN2 project usually present a scenario emphasizing the importance of construction.

► **Figure 12. Temporary non-direct jobs generation by main sector, Customer 2 (Kenya)**

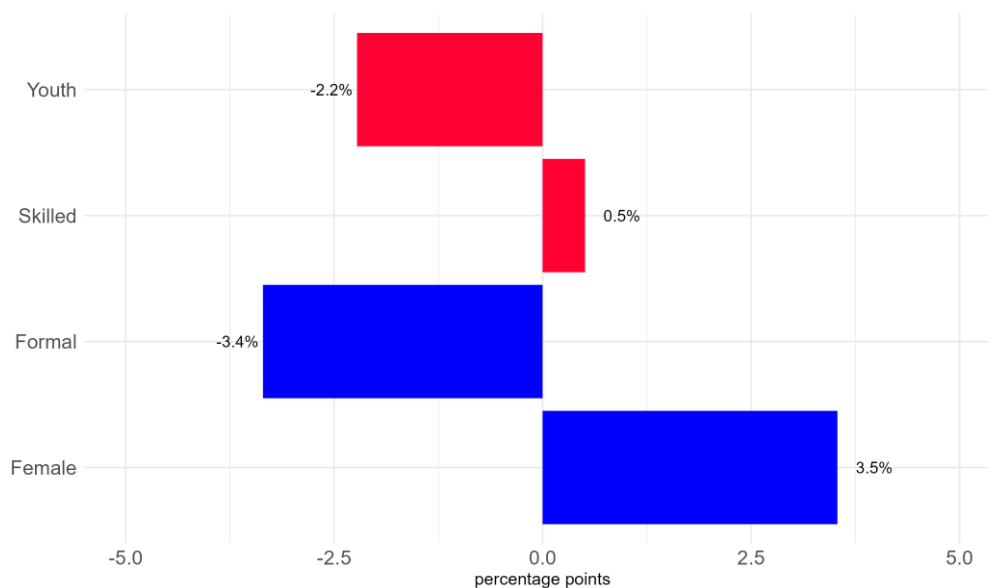


Note: "Other sectors" include the sum of the remaining 56 activities in the model.

Source: Author's calculations.

The temporary **non-direct** employment effects, depicted in figure 13, showed a small negative bias against formal and youth workers. On the other hand, the model estimates a positive bias in favour of female workers, whereas the bias for skilled labour is almost negligible.

► **Figure 13. Employment bias by age, sex, formality and skill for non-direct jobs, Customer 2 (Kenya)**

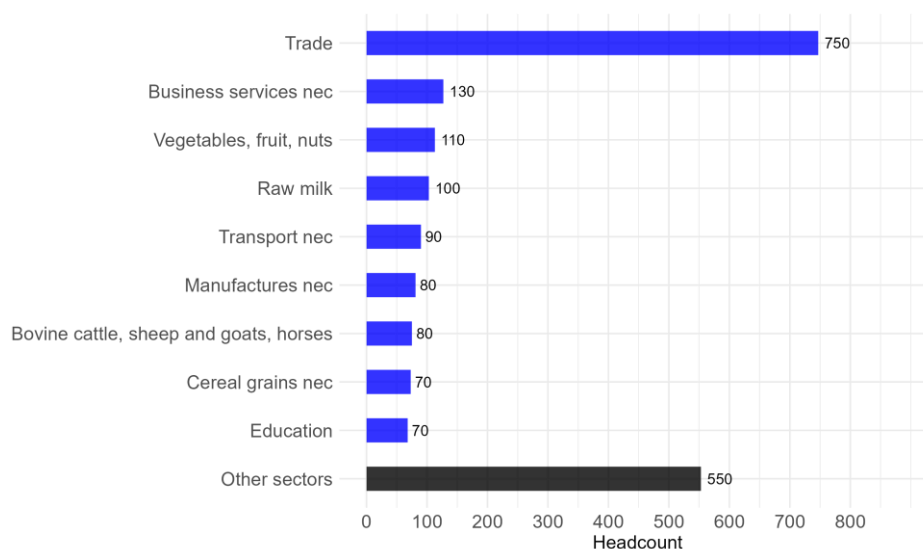


Note: The biases are in comparison to the average shares throughout the national economy.

Source: Authors' calculation.

Figure 14 shows the impact of the loans granted by Customer 3, also located in Kenya. The loans are estimated to **create around 2,030 non-direct jobs** (headcount, rounded). The majority of these jobs are in trade (37 per cent), business services (6.3 per cent), vegetables (5.6 per cent) and raw milk (5 per cent).

► **Figure 14. Temporary non-direct jobs generation by main sector, Customer 3 (Kenya)**

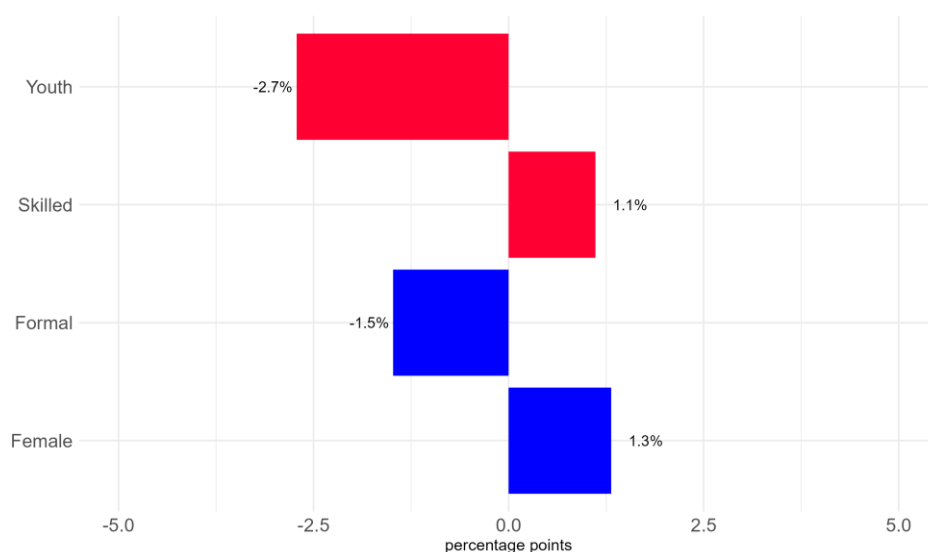


Note: "Other sectors" include the sum of the remaining 56 activities in the model.

Source: Author's calculations.

Finally, figure 15 depicts the temporary **non-direct** employment bias in comparison to the national average. The effects showed a small negative bias against formal and youth workers. Moreover, the model estimates small positive biases in favour of female and skilled workers.

► **Figure 15. Employment bias by age, sex, formality and skills for non-direct jobs, Customer 3 (Kenya)**



Note: The biases are in comparison to the average shares throughout the national economy.

Source: Authors' calculation.

6. Conclusion and recommendations

The NASIRA sharing facility is designed to facilitate economic growth in Kenya and South Africa by providing funds to underserved groups such as women, youth and migrant entrepreneurs. In the absence of an employment assessment of the original programme, this document has sought to address this gap by providing an ex-ante estimation of the non-direct job creation. The effects were obtained through a simulation exercise using an input-output model calibrated on the 2017 GTAP data and labour estimations from ILOSTAT.

The assessment of parts of the NASIRA facility's impact on employment promises a positive outcome. This part of the NASIRA programme is estimated to have created approximately 12,900 jobs through non-direct effects, following the provision of significant funding to banks in Kenya and South Africa. While the results indicate a favourable bias towards job creation for women and skilled workers, they also highlight a potential negative bias towards formal and youth employment. This dual result highlights the importance of continuously refining the programme to ensure that it not only meets its ambitious targets but also supports equitable and inclusive employment growth.

In light of these findings, it is recommended that initiatives be implemented to improve wages, enhance social protection and provide a more effective social dialogue. To achieve effective enhancement of employment outcomes and worker welfare in Kenya and South Africa, it is essential to emphasize the importance of decent work. This necessitates a phased and well-planned transition process, supported by robust government policies and rigorous monitoring of their implementation.

It should be noted that this assessment is subject to a number of limitations. Firstly, it should be noted that a significant proportion of loans granted were allocated to a “miscellaneous” sectoral category. In the absence of further information, in the simulations these loans have been allocated to the “other manufacturing” sector. In the case of agriculture and manufacturing, the total amount estimated by FMO was distributed to a disaggregation level consistent with GTAP, using the share in gross output for the year 2017.

Secondly, the direct employment impact has not been estimated due to the potential for overestimation resulting from the fixed labour coefficient assumption used in the calculations. The fixed labour coefficient in each sector reflects the national average labour requirement per 1 euro of final demand. This includes all firm sizes (small, medium and large firms), with small enterprises generally using more labour inputs than large ones.

Regarding the utilization of these figures as fundamental employment indicators for the monitoring and evaluation of this programme, the following recommendation is proposed: that direct employment effects be based on comprehensive data from banking institutions, which they in turn collate from MSME clients. Information from this document can be employed to estimate non-direct employment effects for individual lines of credit. In most cases, the significance of error margins for non-direct effects is less than that of direct employment effects.

Despite the declared limitations, the results of this assessment provide valuable insights into the non-direct employment effects of the NASIRA programme, indicating its potential to contribute significantly to job creation in Kenya and South Africa. As the ILO's STRENGTHEN2 project continues to assess the employment impact of EU-funded interventions such as NASIRA, the lessons learned from this study will inform future efforts to create more and better jobs in sub-Saharan Africa.

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