Ministry of Higher Education, Technology and Innovation

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Science, Technology and Innovation (STI) Landscape in Namibia

Perspectives from stakeholders

Ministry of Higher Education, Technology and Innovation (MHETI)

CONTENTS

TABLE OF FIGURES

1 INTRODUCTION

This assessment was undertaken to help inform the holistic scorecard on the Science, Technology and Innovation (STI) landscape in Namibia from the perspective of views gathered through interviews to complete a questionnaire with different stakeholders. The report is aimed at feeding into the greater assessment report that was undertaken by the National Commission on Research, Science and Technology (NCRST) in collaboration with the Ministry of Higher Education, Technology and Innovation (MHETI) and the United Nations Educational, Scientific and Cultural Organisation (UNESCO). This strategic partnership initiative affords the collection of data from the relevant stakeholders in both public and private spaces of Research, Development and Innovation. A special recognition needs to be given to Dr Selma Lendelvo and Ms. Ihuhwa Catherine Malulu of the UNAM Grants Management and Resource Mobilisation section who assisted with the data analysis.

The data collection questionnaire was designed to capture the STI landscape in Namibia measuring how and the extent to which, the Recommendations on Science and Scientific Researchers (RSSR) approved in 2017 by UNESCO members states, have been implemented in Namibia.

The information from these questionnaires provides an overview of the stakeholder views in the STI industry as analysed and reported in the twelve (12) sections. The first section of the report provides demographic and organisational information, which included regional distribution and sectorial descriptions of respondents. It is then followed by the section that provides feedback on the awareness of National, Regional, and International STI instruments looking at existing policies, regulations and legislations that support STI.

Further, the analysis rates the extent of the STI status and community engagement in Namibia as well as the identification of possible involvement by Namibian organisations with the community in various ways to promote STI in the country. The institutional engagement of society in the STI section follows, rating the level of exposure of research staff in public/societal involvement in relation to various research components.

The analysis then covers the role of science in national policy and decision making in international cooperation and developments. The report further presents the analysis of the promotion of inclusive and non-discriminatory work conditions and access to education and employment in science. The UNESCO recommendations on scientific researchers advocate for the promotion of human rights of researchers, balancing freedoms, rights, and their responsibilities of which this study covered, and the results are hereof provided.

Lastly the report provides the organisations' perceptions on achieving Sustainable Development Goals (SDGs) and their obstacles.

In conclusion, an overall analysis on the STI landscape from the whole survey is crafted highlighting the meaning of the results for every section. Shortcomings on the methodology used to conduct this survey and further recommendations on how the results on the study can be used are highlighted for further considerations.

The below are the outcomes from the data collection undertaken for this report.

2 DEMOGRAPHIC AND ORGANISATIONAL INFORMATION

2.1 Demographics

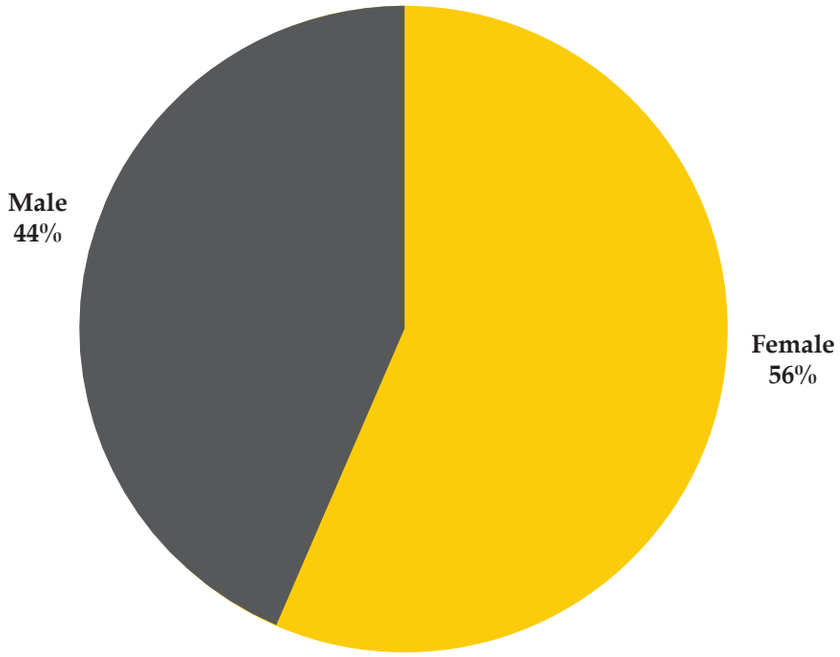


Figure 1: Gender specification of the total number of respondents in the survey

Figure 1 shows that the survey had more female respondents at 56% compared to the male respondents at 44%. Of the total percentage only 20% of the female respondents are in managerial positions when compared to the male counterparts out of the total number of respondents who partook in the survey.

The majority of the respondents are between the ages of 26 and 35 and 36 and 45. These two groups represent both the establishment and mid-career age groups within the Science, Technology and Innovation (STI) space. The lowest group of participants was in the age group of above 60 at 2%, making them the pioneer group in the STI industry at a time when it was not that well invested in or known. Moreover, the less than 25 age group in terms of respondents was fairly low at 5%, however this group has a potential for growth and mentoring as the STI take the forefront of most development agenda as a necessary tool to contribute towards sustainable development goals (See figure 2).

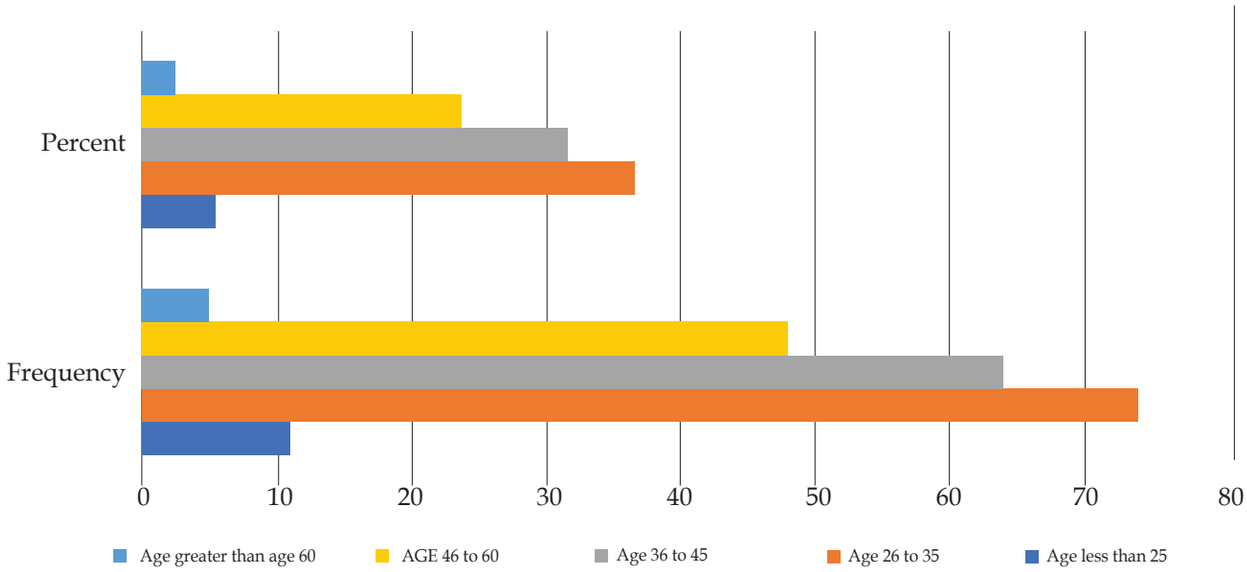


Figure 2: Age group representation of respondents

2.2 Employment tenure in STI

Employment tenure in STI is represented in Figure 3, and shows the highest percentage for work experience under five (5) years at 76%, followed by 11% for between 6 to 10 years' experience, 9% for between 11 to 15 years' experience and lastly, 4% for over 15 years work experience in the STI space. The increase in the high percentage of the work experience under five (5), could be attributed to the establishment of more detailed and focused Sustainable Development Goals (SDGs) as established and adopted by United Nations member states in 2015. Meaning as companies and institutions engage and aim to achieve the sustainable development goals, more solutions to achieving these goals are inherently embedded in STIs in addressing most of the challenges in the SDGs.

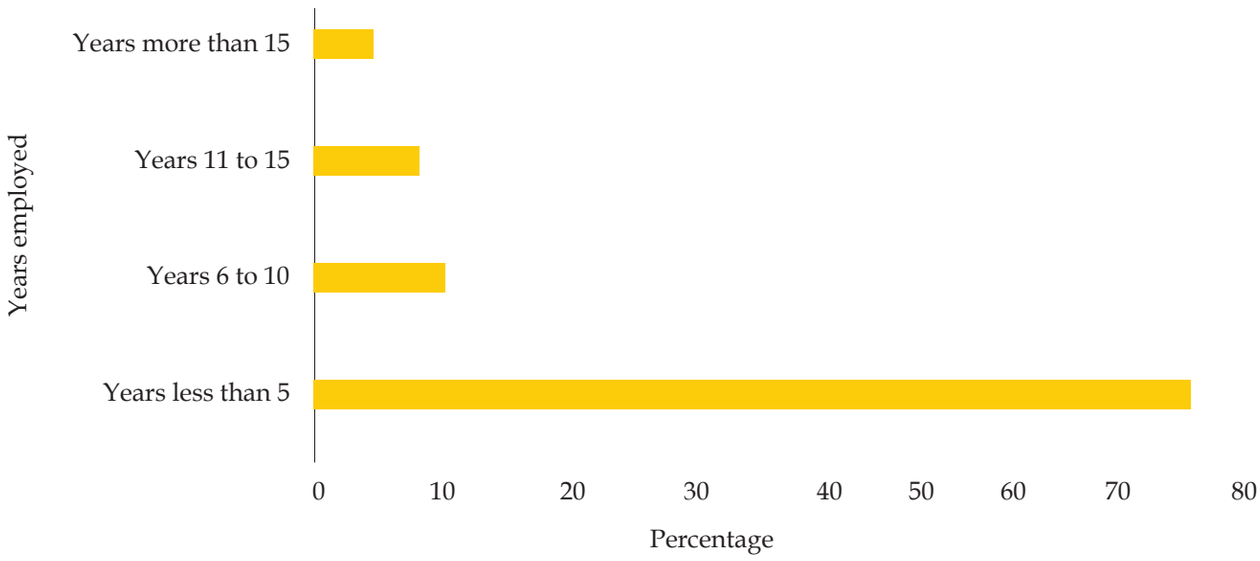


Figure 3: Numbers of years employed in STI

Employment in the STI sector is on the rise. Funding organisations are looking to invest in the educational paths in the STI sector. Over time, that 76% employment of less than 5 years will move into more years in the STI sector, which would in turn suggest an evolution and need to grow the sector to meet SDGs. Additionally, we can see that in 2006 and before, the uptake in STI was low with a percentage of less than 5% as represented by the years of employment in the industry of more than 15 years.

2.3 Organisational existence of respondents

Figure 4 below depicts the number of years in which organisations that host the respondents have been in existence. It is clear that 58% of the organisations have existed for more than ten (10) years, making them leaders in the STI space. Organisations that have been around for a while, tend to attract more early career professionals on the bases of them being well established in the industry and in a position to provide both opportunities for exploration of ideas in an environment that is likely to be more accepting and, in a capacity, to give the idea the financial backing required to bring it to fruition.

Well established organisations and institutions also tend to have back access to funding opportunities and collaboration from bigger industry leader companies.

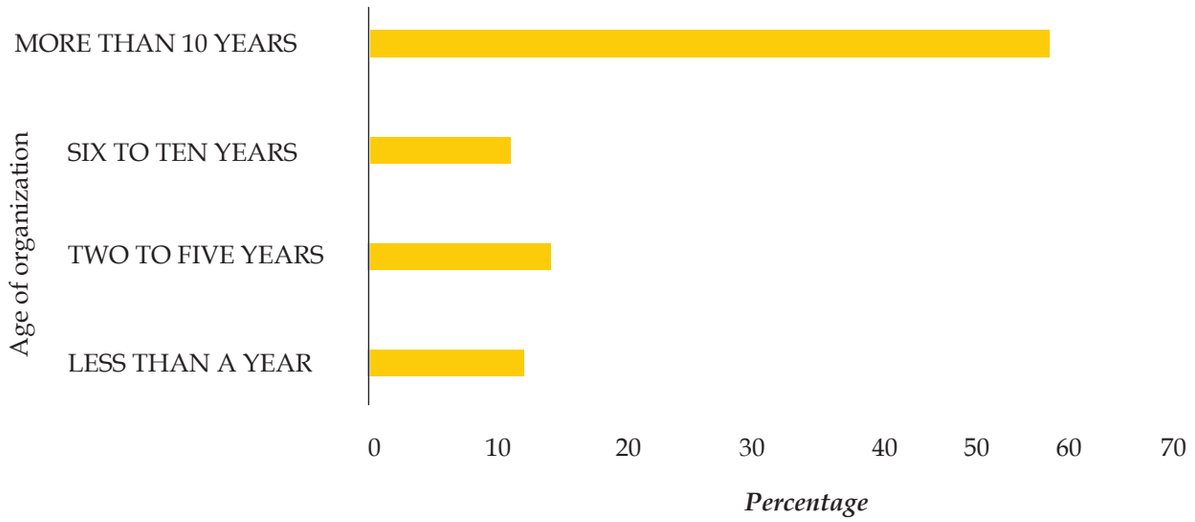
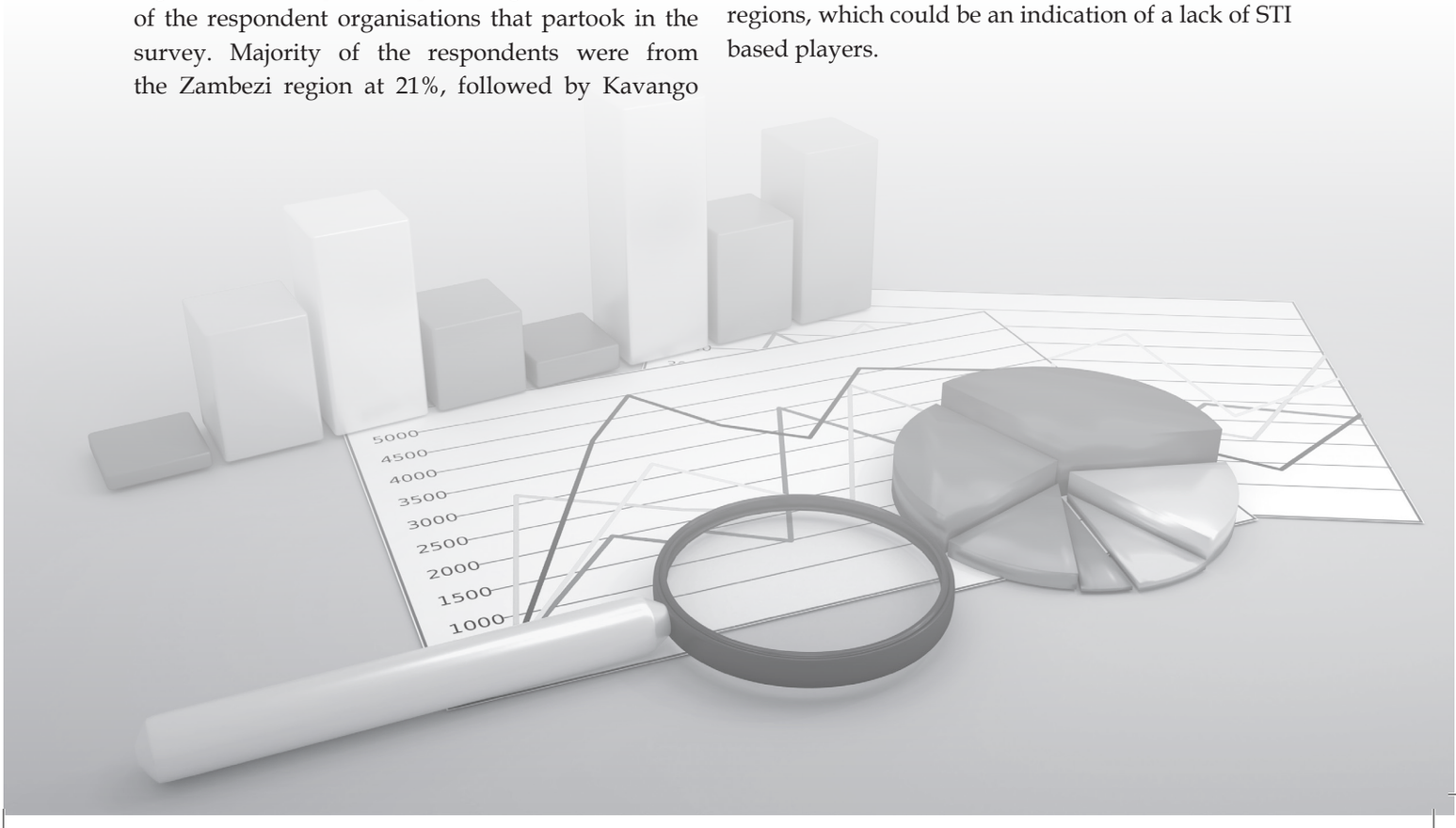


Figure 4: Number of years the organisation has been in existence

2.4 Regional distribution of respondents

Figure 5 below depicts the percentages of the location of the respondent organisations that partook in the survey. Majority of the respondents were from the Zambezi region at 21%, followed by Kavango East with 12% and Oshikoto at 12%. There were no respondents from the Otjozondjupa and Hardap regions, which could be an indication of a lack of STI based players.



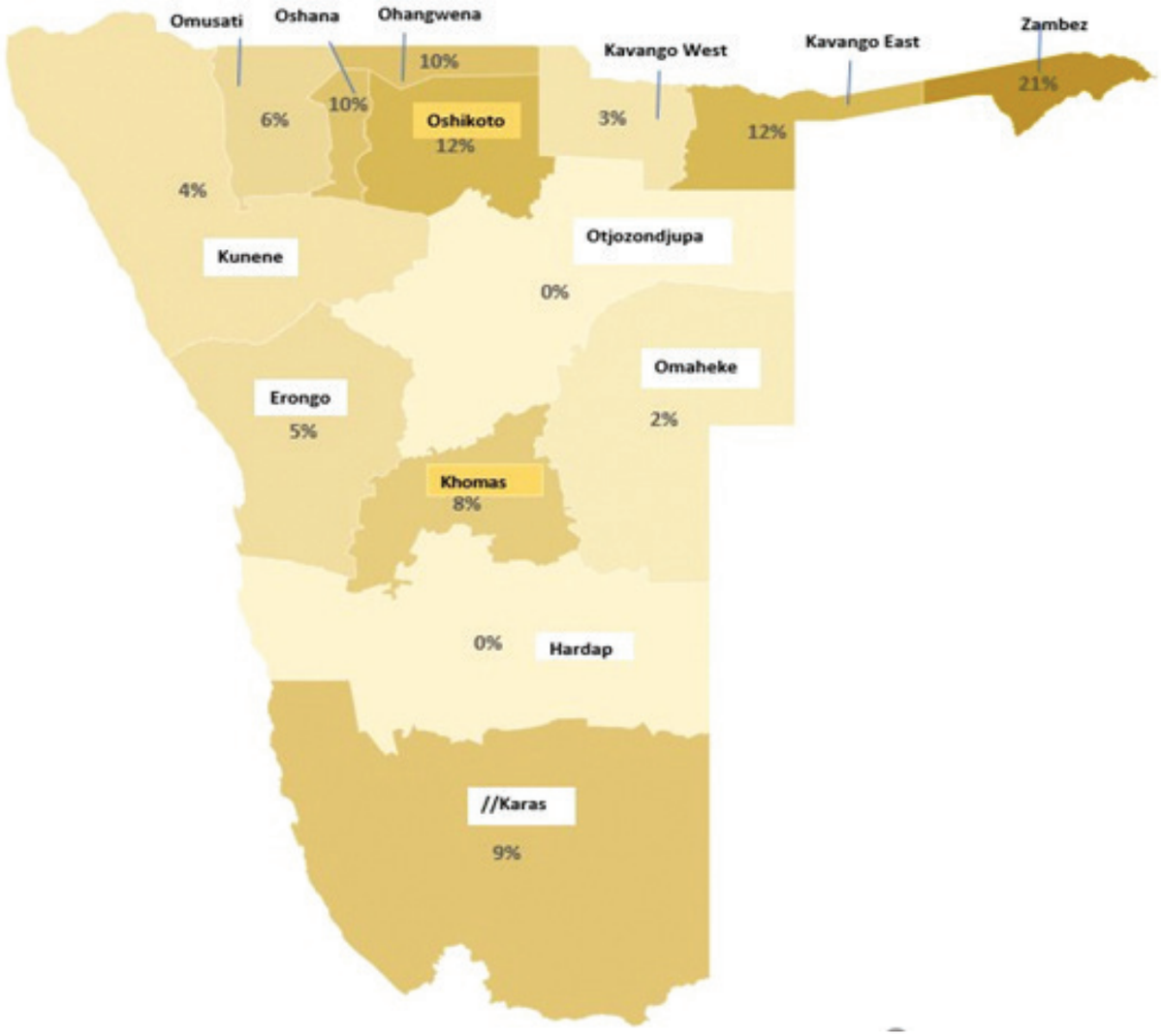


Figure 5: Respondents per region

2.5 Sectorial description of respondents

Additionally, of the respondents who partook in the survey, 40% were from private entities, 30% from higher learning institutions, 25% from government/ public entities and 5% from non-governmental research organisations (Figure 6).

In addition, Figure 7 shows the breakdown of the thematic sectors as given in Figure 6 on the institutional description. The highest percentage of respondents was in the Agriculture and Fisheries sector at 20%, which could explain why the regional breakdown in Figure 5 shows Zambezi as having had the most respondents. The area is primarily known for Agriculture and Fisheries. 15% of the respondents were from the Information and Communications sector followed by Manufacturing Technologies at 14%. There is definitely a need to promote and grow the Space Science sector which had the lowest number of sectorial representation, with only 1% respondents. The Biotechnology sector has the potential to be embedded in other sectors through the promotion biotechnological advances aimed at improving life in both the medical and food security sectors. Most of these sectors have the potential to help reduce climate change vulnerability through innovation and technology.

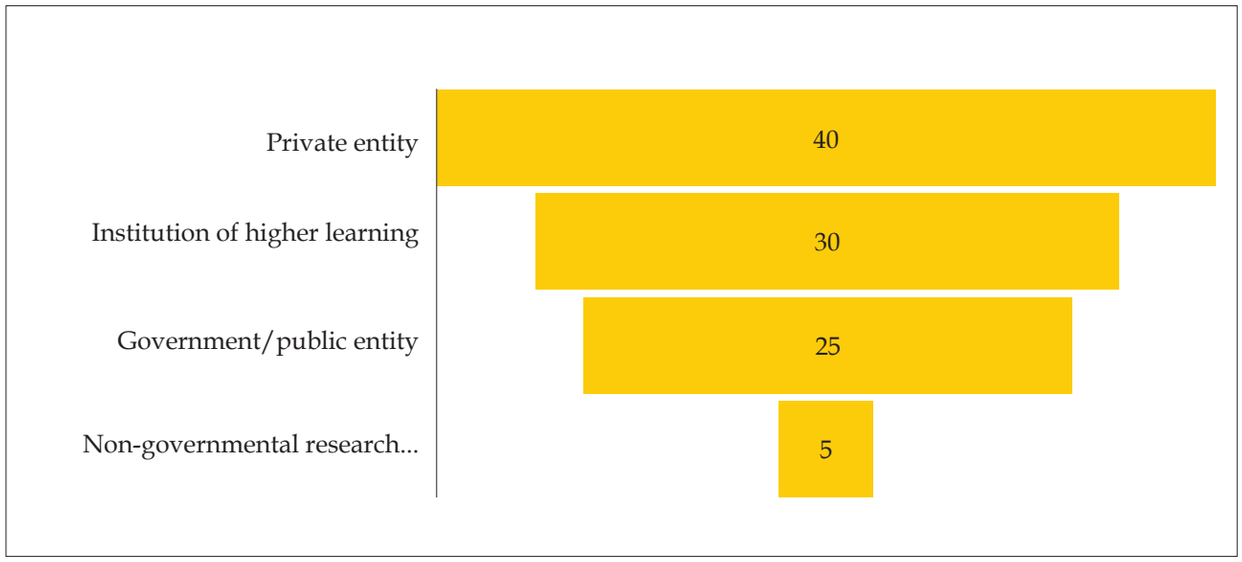


Figure 6: Best description of the institution

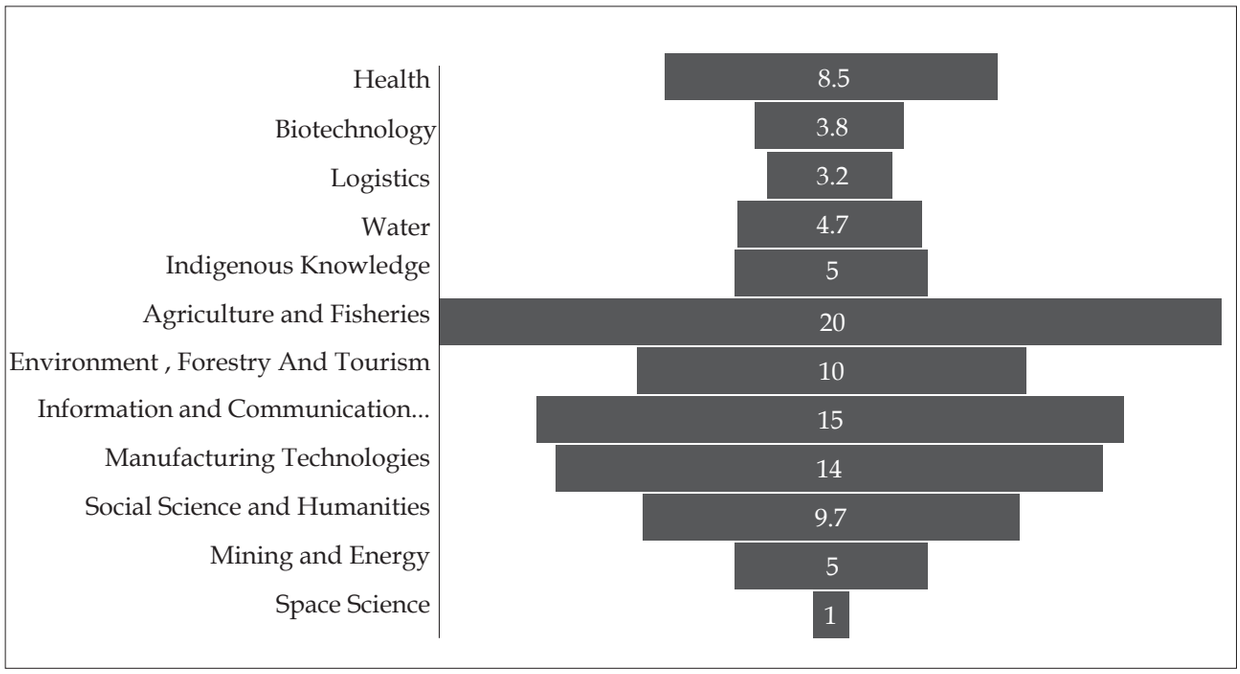


Figure 7: Institutional thematic areas of respondents

3 AWARENESS OF THE NATIONAL STI POLICIES, REGULATIONS AND LEGISLATION

In terms of the general awareness of national STI policies, regulations and legislation, at a regional level, Erongo, Khomas and Kunene region were between slightly aware and somewhat aware. These three regions had the best overall general understanding of STI. The other regions were mostly slightly aware of STI policies and regulations. What is concerning is the lack of extreme awareness in the overall STI spectrum meaning more engagement needs to be employed to have major sectorial players more aware of initiatives, policies and legislative frameworks. Figure 8 below is a representation of the overall awareness of STI at regional level.

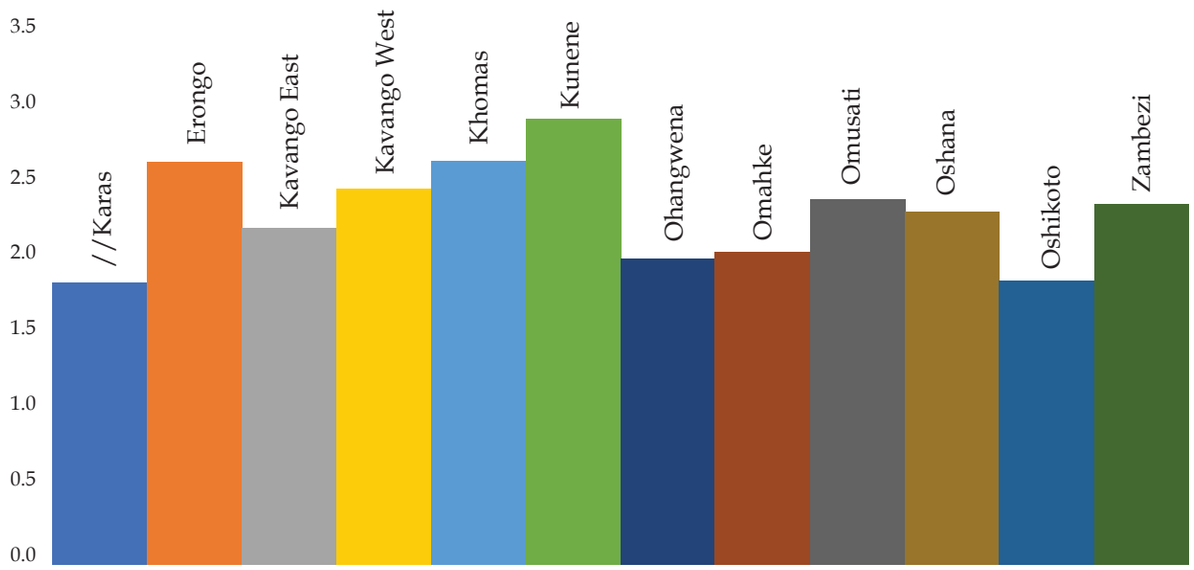
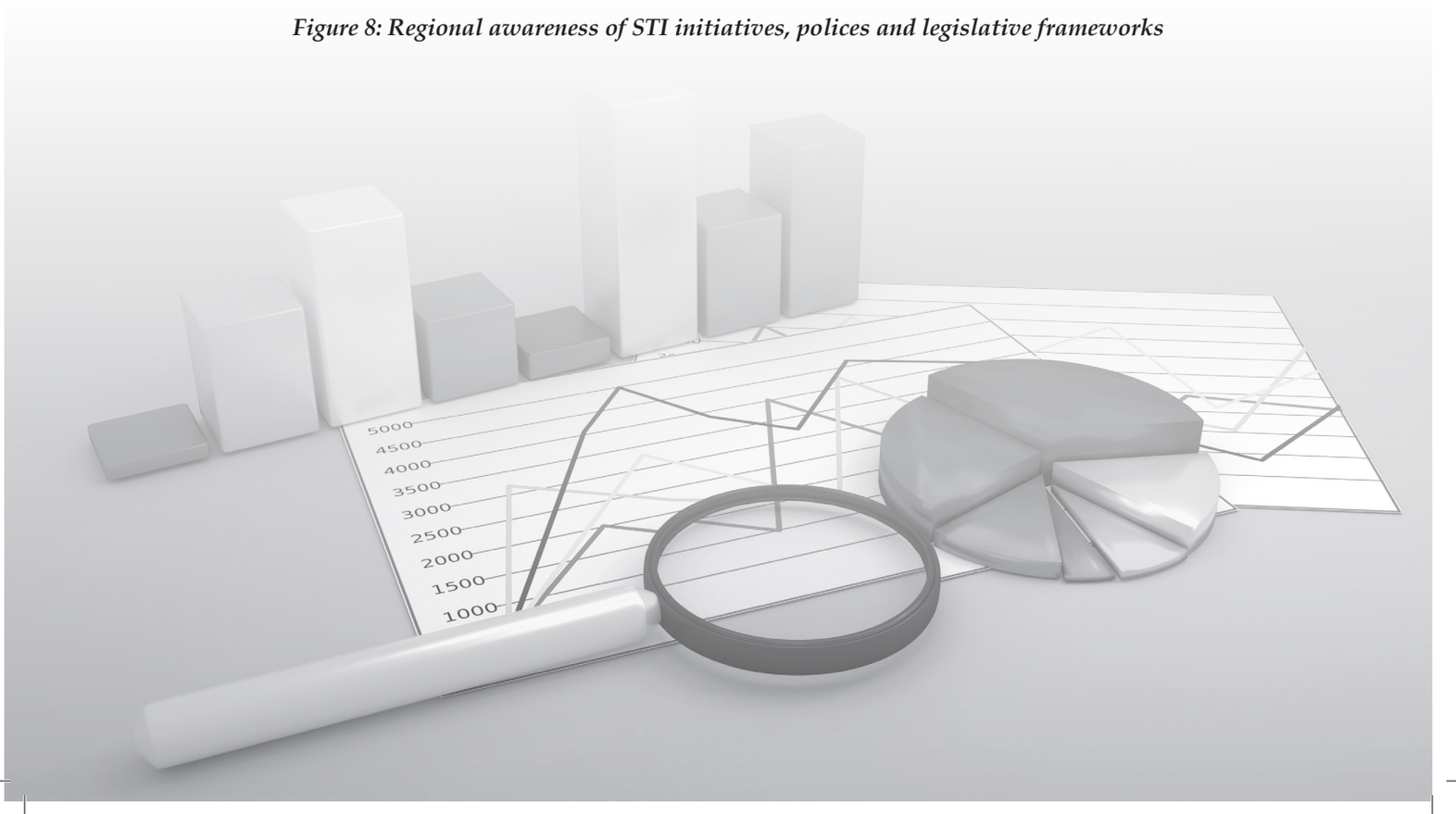


Figure 8: Regional awareness of STI initiatives, polices and legislative frameworks



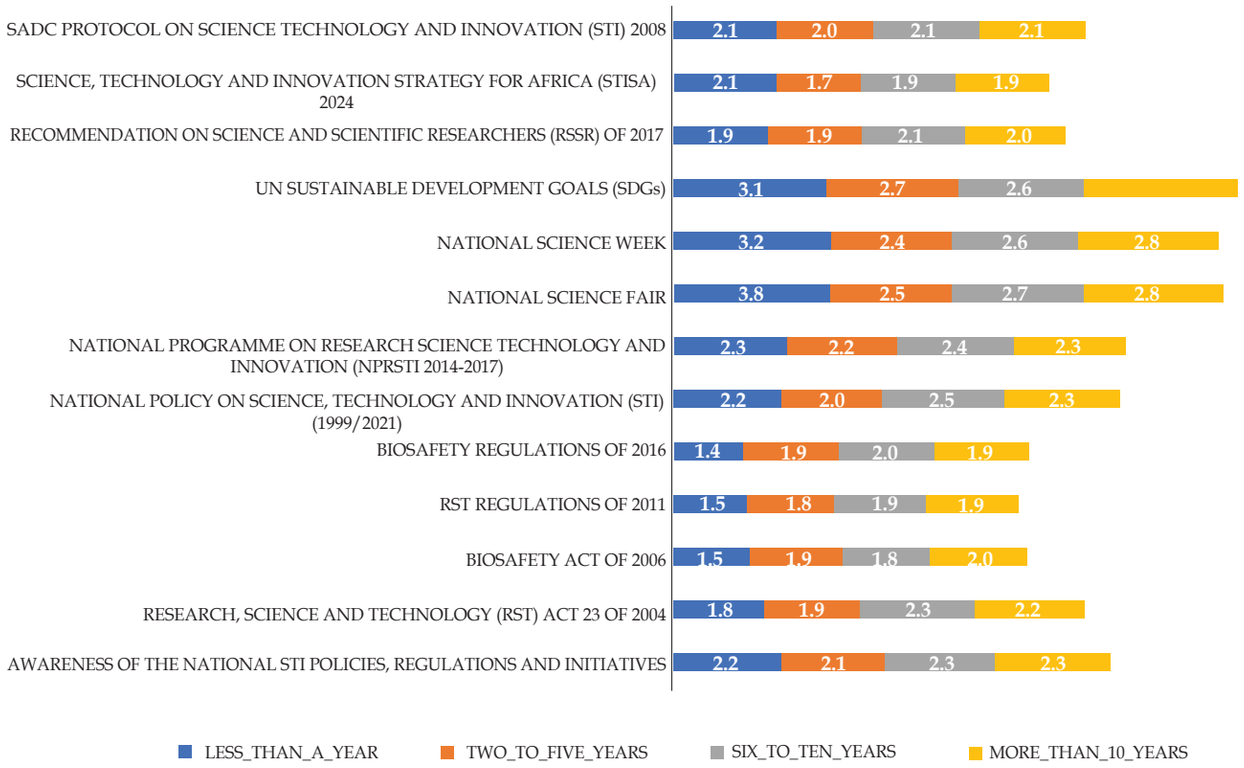


Figure 9: Awareness of specific STI policies, regulations and Initiatives

Figure 9 shows a representation of the respondents based on the number of years that the organisation has been in existence. From the above figure we can see that most respondents are somewhat aware of the United Nations Sustainable Development Goals (SDGs), National Science Fair and Science Week. Additionally, the Biosafety Act of 2006, Biosafety regulations of 2016, Science, Technology and Innovation Strategy for Africa (STISA) 2024 and the RST regulations of 2011, were the policies, regulations and initiatives that were in the slightly aware bracket. Perhaps strides should be made to create more awareness on the least known policies beyond just the industries that they operate in.

The respondents who are in the age group greater than 60 had the highest mean rating (3) making them somewhat aware in terms of their awareness of the national STI policies, regulations and initiatives when compared to the rest of the age groups which all had the same mean rating of 2. This puts them in the slightly aware group. Additionally, the age groups of 26 to 35 years, 36 to 45 years and 46 to 60 years had understood the UN Sustainable Development Goals (SDGs), the most when compared to the other initiatives. The rest of the initiatives were ranked differently across the categories. RST Regulations of 2011 were rated as one of the least understood initiatives. On the other hand, the age groups less than 25 years and greater than 60 years have selected the National Science Week and National Science Fair as their most understood initiatives, while (STISA) 2024 was the least understood initiative.

4 STI STATUS AND COMMUNITY ENGAGEMENT IN NAMIBIA

4.1 The extent of engagement between organisations and the communities in STI

The overall extent of community engagement by the organisations is between "sometimes" and "rarely", meaning engagement is relatively low. On the overall, Kunene was the only region which on a frequency of "Sometimes" to "Often", engages with the community. The rest of the regions "Sometimes" engage the community, excluding //Karas and Oshikoto who "rarely" engage the community. Figure 10 below represents this finding.

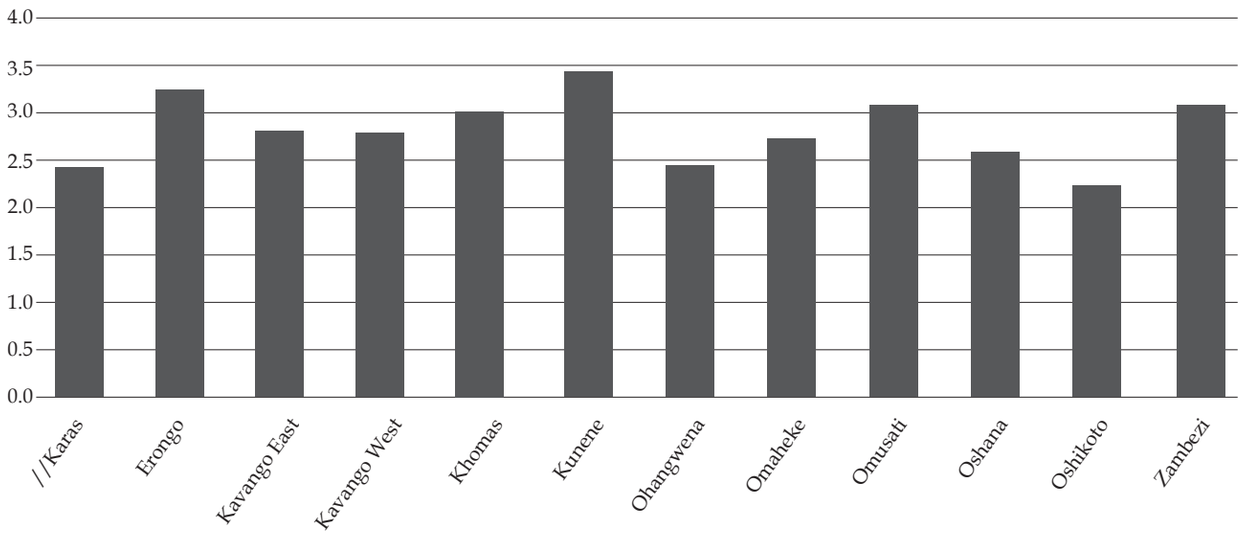


Figure 10: Extent of community engagement at a regional level

Overall, most respondents indicated that Identification of knowledge needs is the most selected strategy for engagement between the organisations and the community in the STI domains and is rated to happen "Sometimes" to "Often". Incentive schemes for SMEs has been indicated as the least strategy of engagement between the organisations and the community in the STI domains by 11 of the 12 regional respondents (92%). Furthermore, respondents from the Ohangwena region indicated Utilization of STI for socio-economic advancement as the least employed strategy for engagement, while Oshikoto indicated Utilization of STI for socio-economic advancement and Providing access to enabling STI infrastructure and services as the lowest rated amongst all the categories of engagement between the organisations and the community in the STI domains. The Redressing of Gender imbalances featured with the highest extent of engagement between the organisations and the community of the Kunene region in the STI domains, followed by Stakeholder engagement in the Kunene and Identification of knowledge needs in the Omaheke regions.

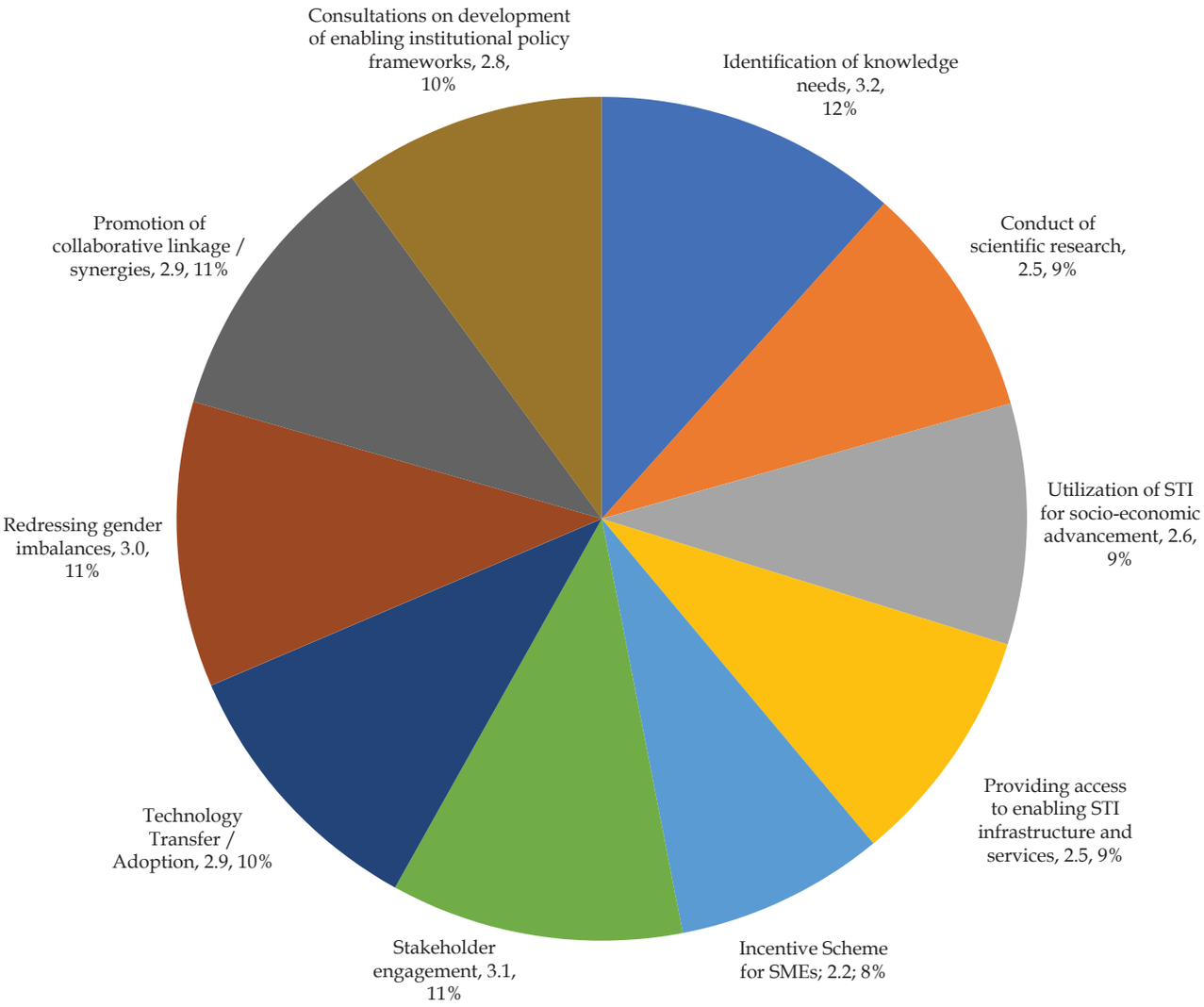


Figure 11: Rate of engagement between the organisations in STI and the community

Figure 11 above, shows the rating of the STI organisations initiatives for community engagement, the Identification of knowledge needs had the highest rating (3.2) and percentage 12%, followed by Promotion of collaborative linkages/synergies, (2.9) (11%), Redressing Gender imbalances (3.0)(11%) and stakeholder engagement (3.1)(11%). On the other hand, all age groups selected Incentive Scheme for SMEs as the least used measure, while the age group greater than 60 years selected the Provision of access to enabling STI infrastructure and services as the least used measure.

4.2 Organisational integration of policies, research and innovation in the development of an organisation

Overall, all respondents chose the Respect for the Environment as a certainty rating of "Always", in terms of its integration in the organisations polices. This was followed by Advancement of humankind welfare and the Peaceful application of STI. Use of STI for advancement of Human Dignity, Application of STI for socio-economic advancement and Strengthening of societal justice had equal rating in the "Sometimes" range. Figure 12 below, depicts the results.

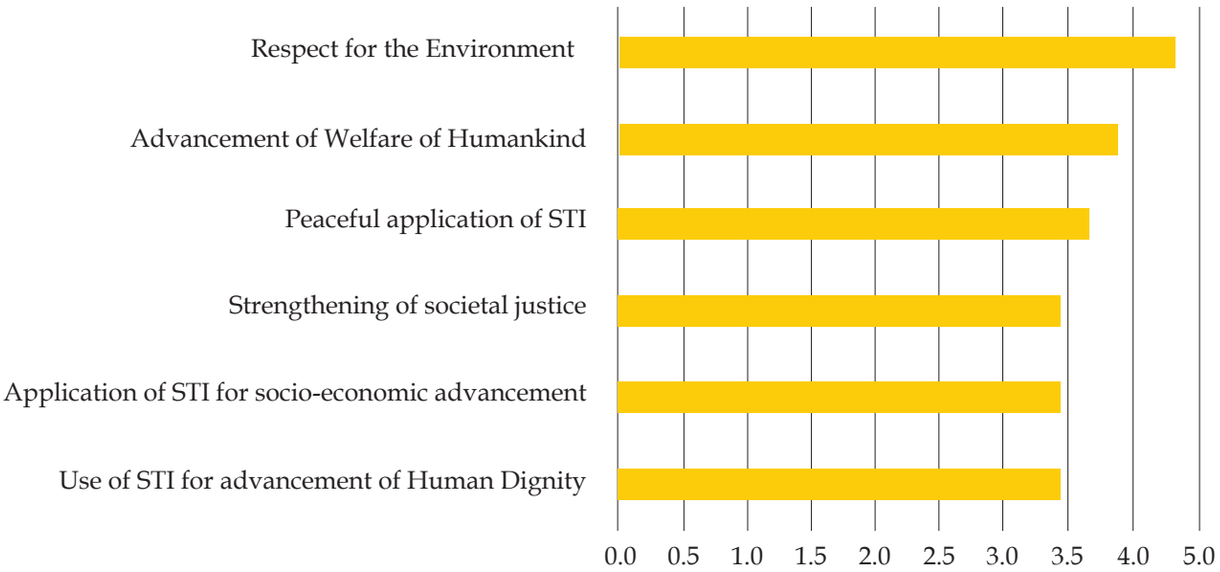


Figure 12: The extent of integration at organisational level

Organisations in the category of less than a year in existence have indicated *Advancement of Welfare of Humankind* as the most important initiative, and *Strengthening of societal justice* as the least important initiative.

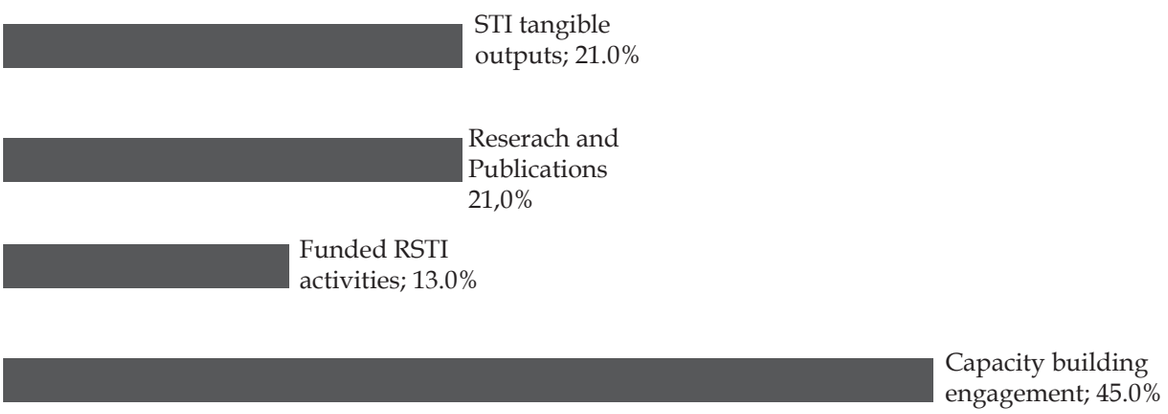


Figure 13: Measures taken by organisations to use STI to contribute to the knowledge in society

Overall, *Capacity building engagement*, was the most used measure by the organisations to contribute to the knowledge in society, while *Funded RSTI activities* was the least used measure as shown in Figure 13.

All age groups selected *Capacity building engagement* as the most important measure. The age group 36 to 45 years of age indicated *Research and Publications* as the least important measure, whilst *Funded RSTI activities* were selected as the least important in 26 to 35 age group. STI tangible outputs in the age group 25 and less, had equal importance with *Funded RSTI activities* in the same age group. On the contrary, the age group greater than 60 indicated Research and Publications as the second-best measure, with *Funded RSTI activities.*

Where employment tenure linked to the measures taken by organisations to contribute the knowledge in society, the employees who stayed in the STI industry for more than 10 years have the same pattern in ranking; indicating *Capacity building engagement and Research & Publications* as the most important measures. This shows that they have seen the tangible effects that these measures had on the overall growth and evolution of the STI sector. *Funded RSTI activities,* followed by *STI tangible outputs* were ranked the two least important by amongst the different tenure employment groups.

In terms of regional responses, although *Capacity building engagements* generally had the highest contribution to *Knowledge in society*, it had the least % from the Omusati region. Omaheke region respondents excluded *Funded RTSI activities* altogether. *Research & Publications* had the least ranking in Ohangwena region, whilst Erongo region excluded *STI tangible outputs*. Kunene selected only three (3) of the four knowledge contribution streams, but excluded *Research & Publications*. There was a variation in regional measures taken at organisational level, however, *Capacity building engagement* and *Funded RSTI activities* had the highest and least uptake, respectively. Figure 14 shows all the regional perspectives taken by the different organisations in the use of STI towards knowledge contribution in society.

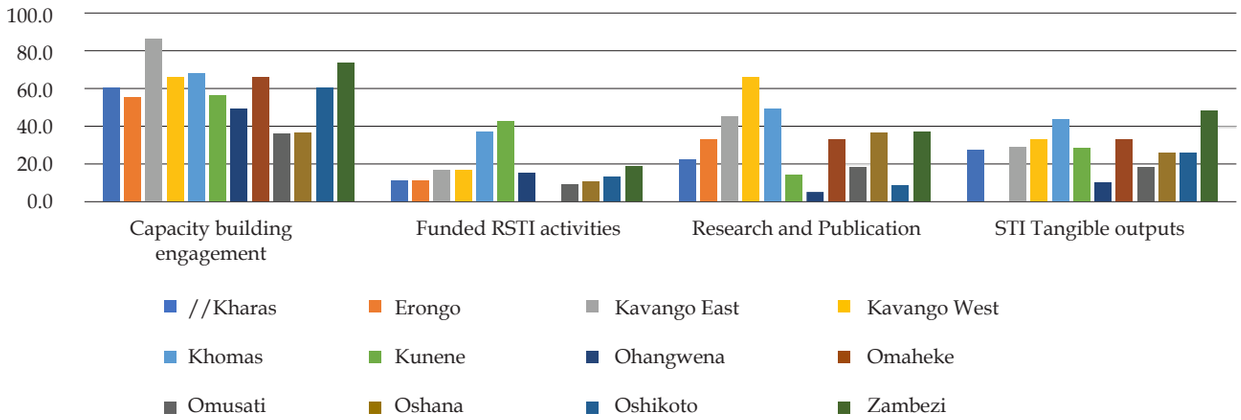


Figure 14: Measures taken by organisations at regional level

Measures taken by institutions to promote a scientific culture in society

Overall, in terms of a scientific culture, the promotion of science initiatives category was the most preferred measure with at 37%. *Research & Publications* 19%, the Promotion of STI outputs and Technology transfer and adaptation platforms both ranked in at 17%, whilst Funded RSTI activities was the least ranked measure at 10%. The results of this interpretation are seen in Figure 15.

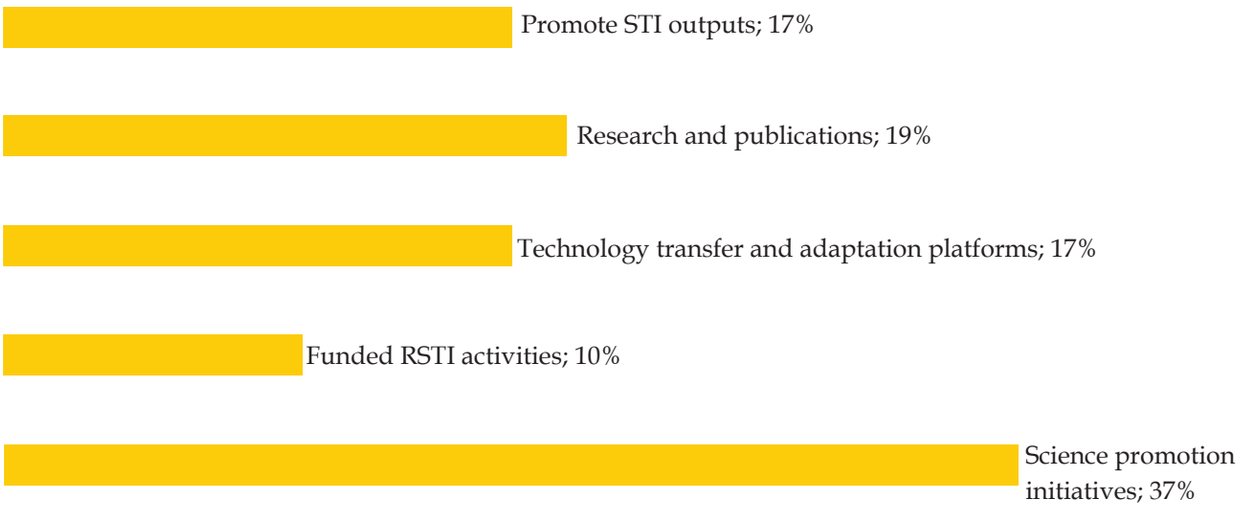


Figure 15: Measures taken by institutions to promote a scientific culture in society

In this instance, both genders preferred the *Science Promotion initiatives*. The least importance was given to Funded RSTI activities. The *Promotion of STI outputs and Technological transfer and adaptation platforms* had minimal difference in their levels of importance of percentile ranking. The data is presented in figure 16

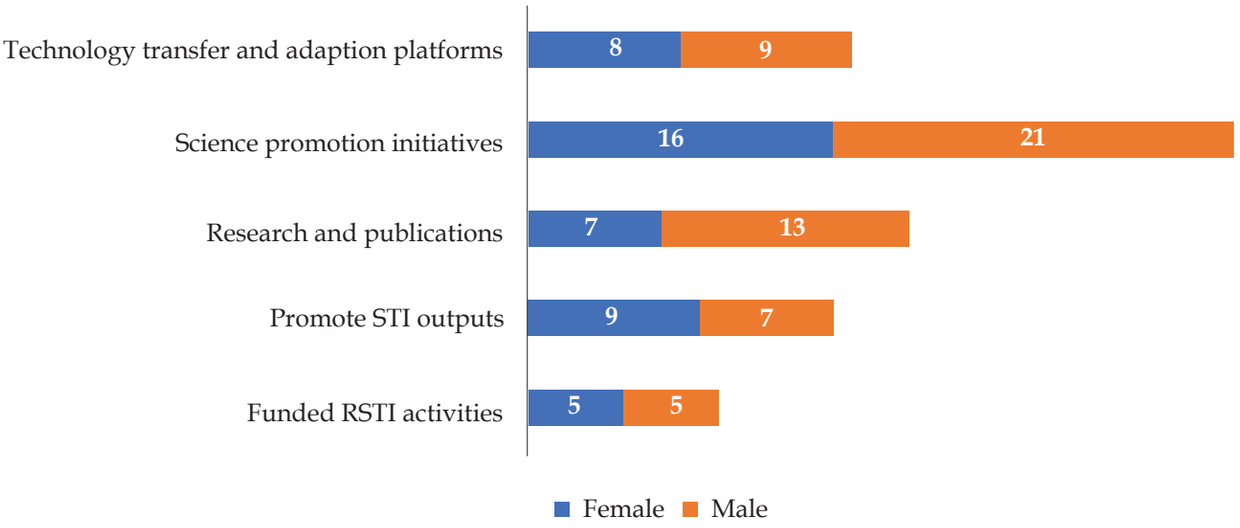


Figure 16: Measures taken for the promotion of a scientific culture in society by gender

The age groups less than 25 and greater than 60 had almost the same pattern of ranking. Additionally, the same age groups chose Research & Publications and Science promotion initiatives as having equal levels of importance to the promotion of a scientific culture in society. The same age groups (less than 25 and greater than 60) were the only age groups that felt the importance of *Funded RSTI activities*. *The Promotion of STI outputs* had the least support from the age group 36 to 45 years. Similarly, the *Science promotion initiatives* was the highest-ranking category in all the age groups.

Respondents that have been employed for more than 15 years only ranked *Technological transfer and adaptation platforms, Science promotion initiatives and Research & publications* as having the most significant to scientific knowledge promotion in society. There is a need to strengthen *Funded RSTI activities*, as it remains a measure with the least placement in terms of pushing STI forward.

From an organisational existence perspective there are varying degrees of importance to institutional promotion of a scientific culture in society. Organisations in existence for less than a year, did

not think *Funded RSTI activities* contribute to the promotion of a scientific culture. Organisations in existence between six (6) -ten (10) years had the least difference in all the options of scientific knowledge-based measures, and saw them as having high enough levels in its promotion. Moreover, organisations which existed for more than 10 years placed *Science promotion initiatives* as the most important measure. Each category had a different organisational existence placing an importance on a particular measure.

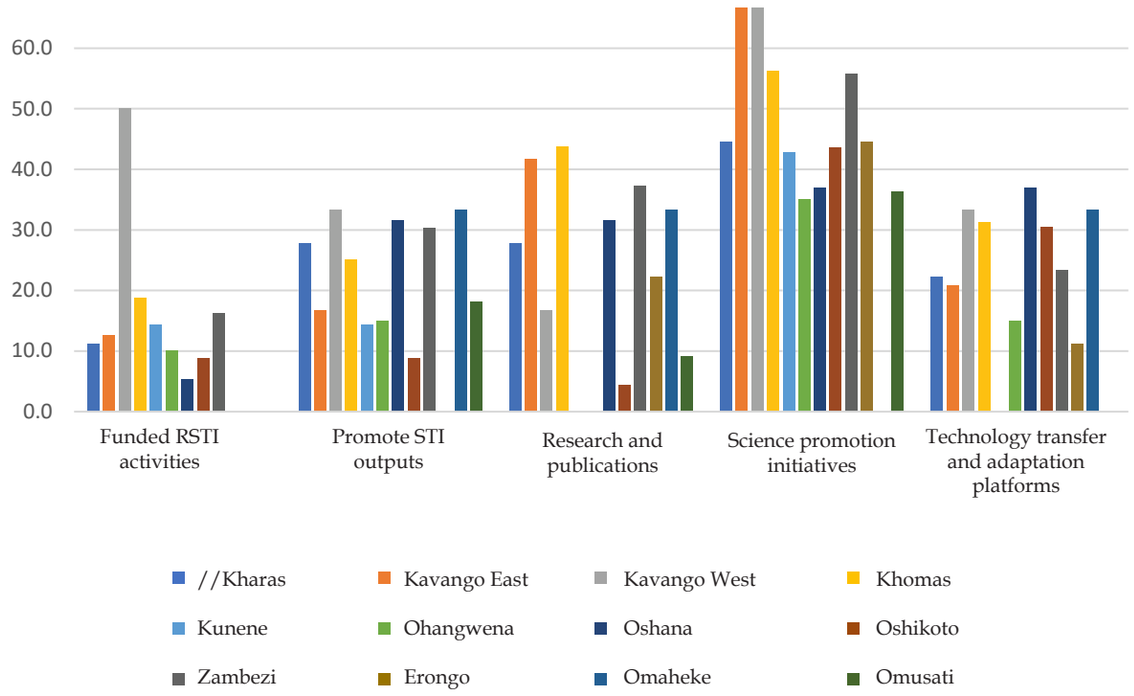


Figure 17: Regional measures taken for the promotion of a scientific culture in society

The *Promotion of STI outputs* had the highest level of importance from the Erongo region respondents, whilst Kunene and Ohangwena region did not pick *Research & publications*. Omaheke did not pick the highest category of *Science promotion* as chosen by other regions but instead chose *Technological transfer and adaptation platforms* as its highest measure, whilst Kunene excluded this measure. Erongo, Omaheke and Omusati also excluded *Funded RSTI activities*. Figure 17 depicts the above statements. Furthermore, the lack of funding was observed to be the biggest obstacle to the promotion of STIs.

Where *Accessibility of work* is concerned, 57% of the respondents felt they make their results publicly accessible. Whilst 28% were unsure and 15% did not make their results accessible to the public. The 57% who indicated that they make their results publicly accessible said they shared their work through social media platforms, their organisational websites and Facebook platforms, print media, brochures and leaflets and through their stakeholder engagement platforms e.g., Workshops and trainings.

In terms of *Societal need addressing*, 53% of the respondents left their research does them, 31% was unsure and 16% left their work did not address societal needs. Most organisational respondents addressed societal needs through food security-based projects (agriculture and aquaculture), provision of water for the latter activities and funding was also made available to social projects with value addition merit.

5 INSTITUTIONAL ENGAGEMENT OF SOCIETY IN STI

In terms of *Levels of exposure of the research staff in public/ societal engagement* there is an overall level of between Low to Medium rating. Additional participation in data collections, followed by the communication of results and professional development, participation in analysis, getting results into practical use and the co-designing of research agendas/research questions. The results are presented in figure 18.

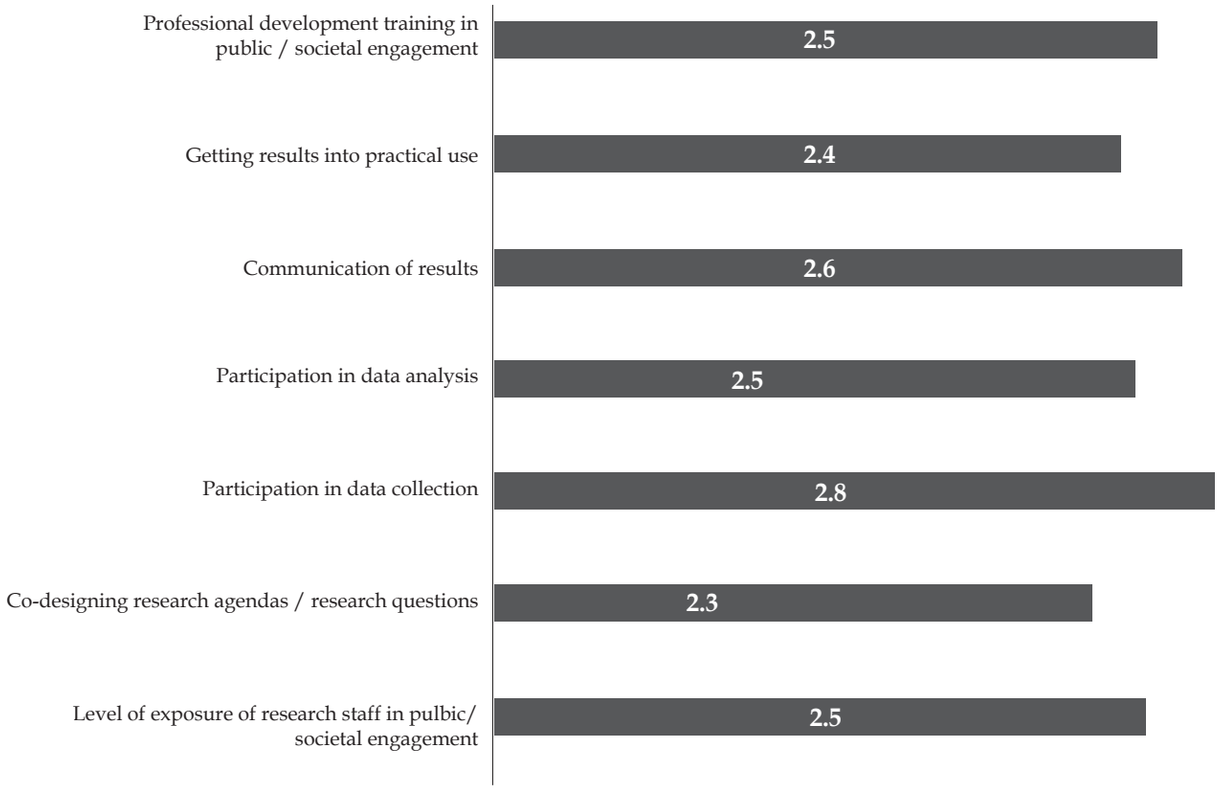


Figure 18: Overall levels of exposure of research staff in public/societal engagement

At a regional level Kunene showed high peaks in their turning of results into practical usage high (60-79%) and their *Participation in data collection* between Medium (40-59%) to High (60-79%) and this is followed by Zambezi with their *Participation in data collection* between Medium (40-59%) to High (60-79%). Oshikoto region had the least, very low (<20%) in all its categories of levels of exposure. A majority of the categories at exposure level of the research staff was between low (<20%) to Medium (40-59%), the results are depicted in Figure 19.

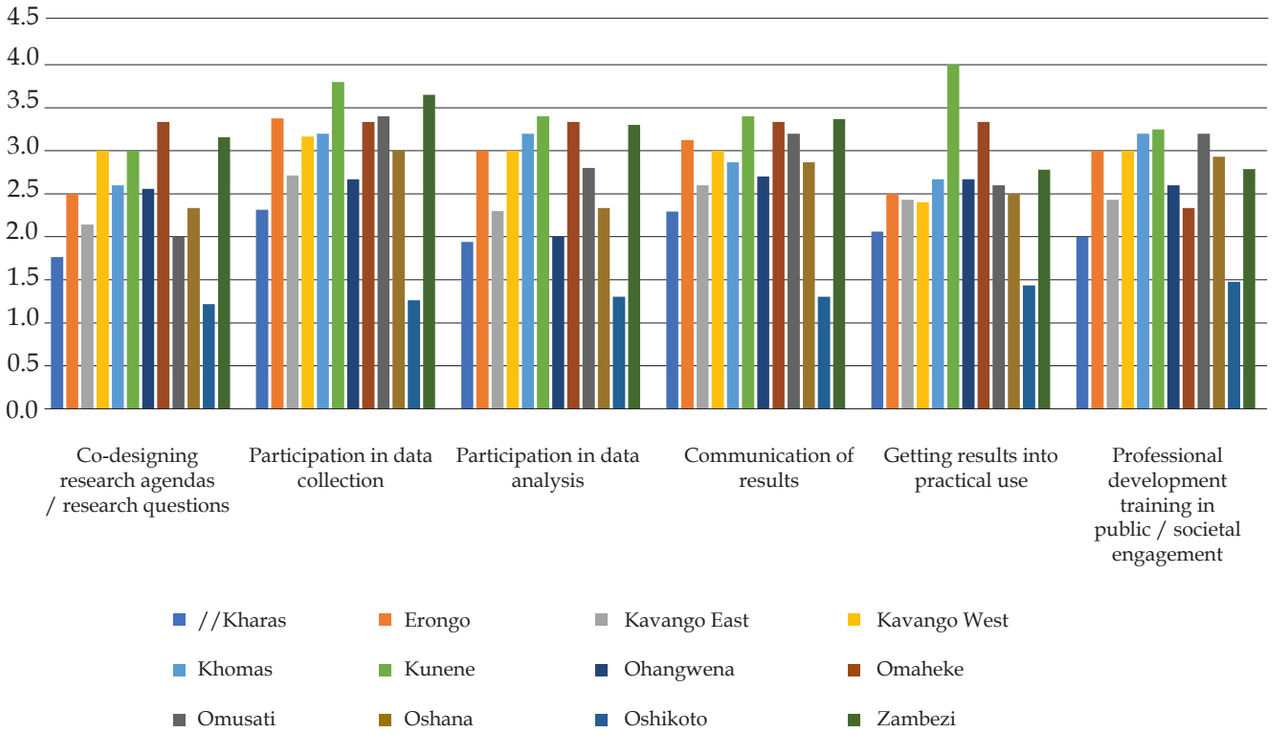


Figure 19: Levels of exposure of research staff in public/societal engagements

6 ROLE OF SCIENCE IN NATIONAL POLICY AND DECISION MAKING, INTERNATIONAL COOPERATION AND DEVELOPMENT

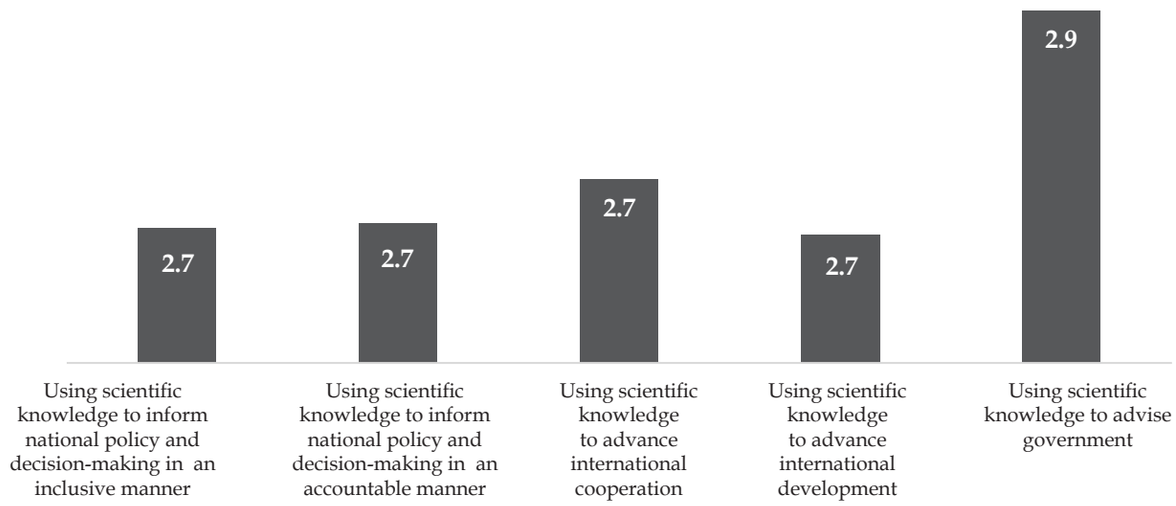


Figure 20: Overall institutional measures informing national policy and advancement of international cooperation

Figure 20 shows the overall ratings of institutional measures informing national policy and advancement from the respondent organisations. The use of scientific knowledge to advise government and the rest of the results had equal importance. However, all categories rest between "rarely" and "sometimes" where national policy measures and advancement in international cooperation are concerned.

"The use of scientific knowledge to advise government and the rest of the results had equal importance"

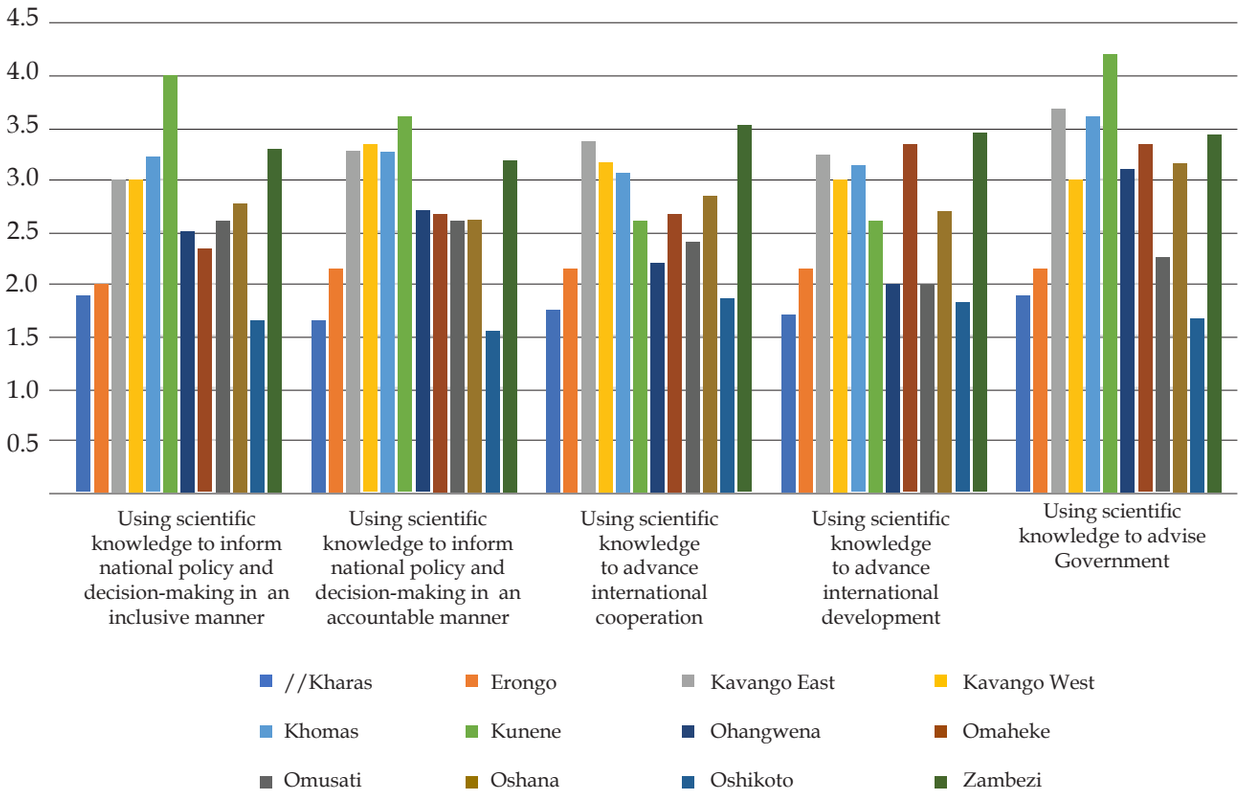
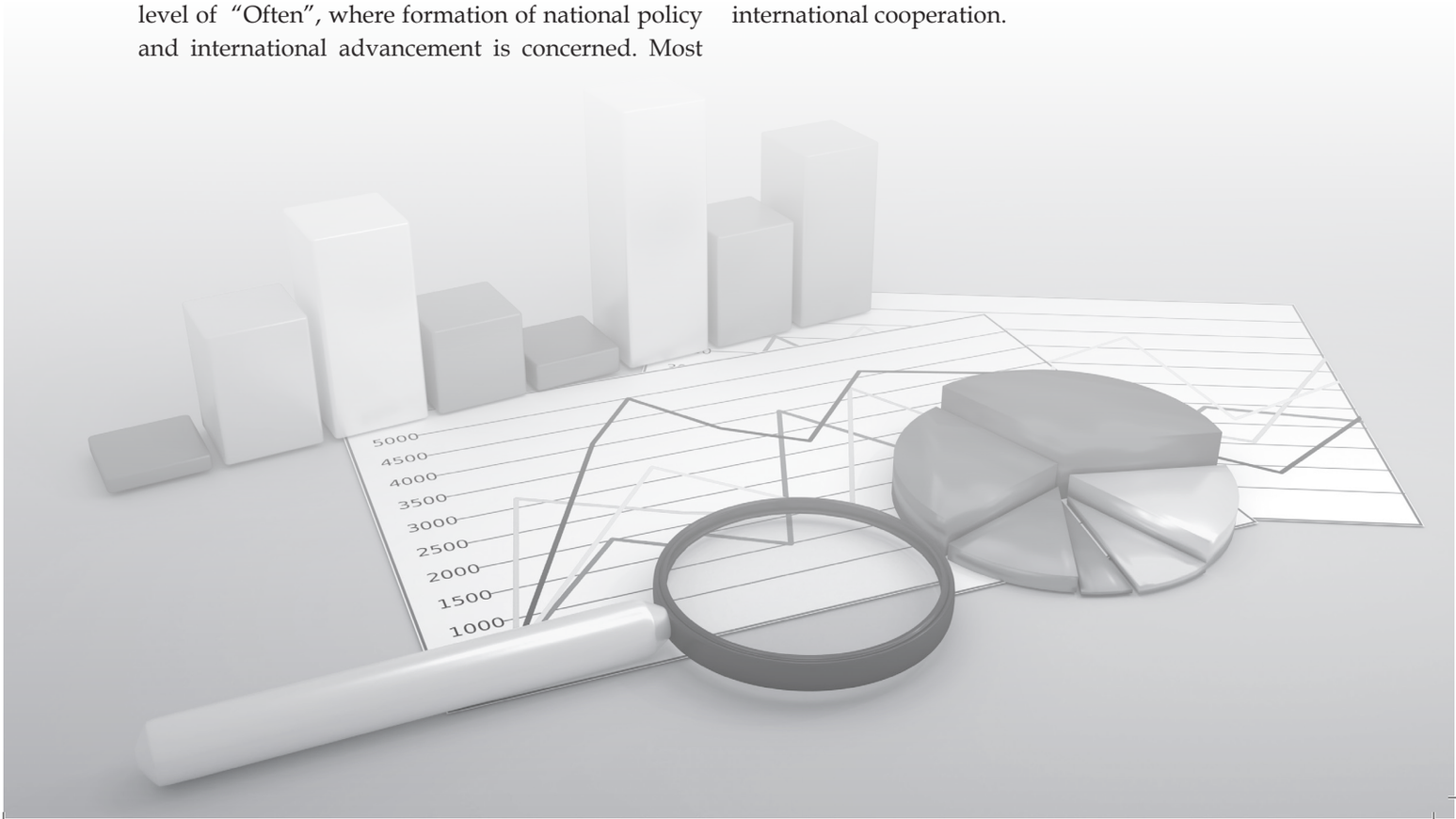


Figure 21: Regional measures informing national policy and international cooperation advancement

From figure 21 we can see that the Kunene region had the highest overall rating of a category placing the *Use of scientific knowledge to advise government* at the very top with a rating of (4.2) and the *Use of scientific knowledge to inform national policy and decision making* in an inclusive manner (4.0) placing them at the level of "Often", where formation of national policy and international advancement is concerned. Most of the other regions are situated between "rarely" to "sometimes". Oshikoto region had the lowest overall ratings in all categories where respondent organisations are concerned for all measures between them between "never" to "rarely" where institutional measures are able to inform national policy and international cooperation.



7 PROMOTION OF KNOWLEDGE SHARING IN STI

Where the concept of open access and its general application is concerned, the Kunene and Oshana regions had very good understanding placing them in the top tier. They were closely followed by all the other regions with a rating of between a poor and fair understanding. The Oshikoto region had the lowest level of understanding where the concept of open access and its applications was concerned. Figure 22 shows the representation of these results.

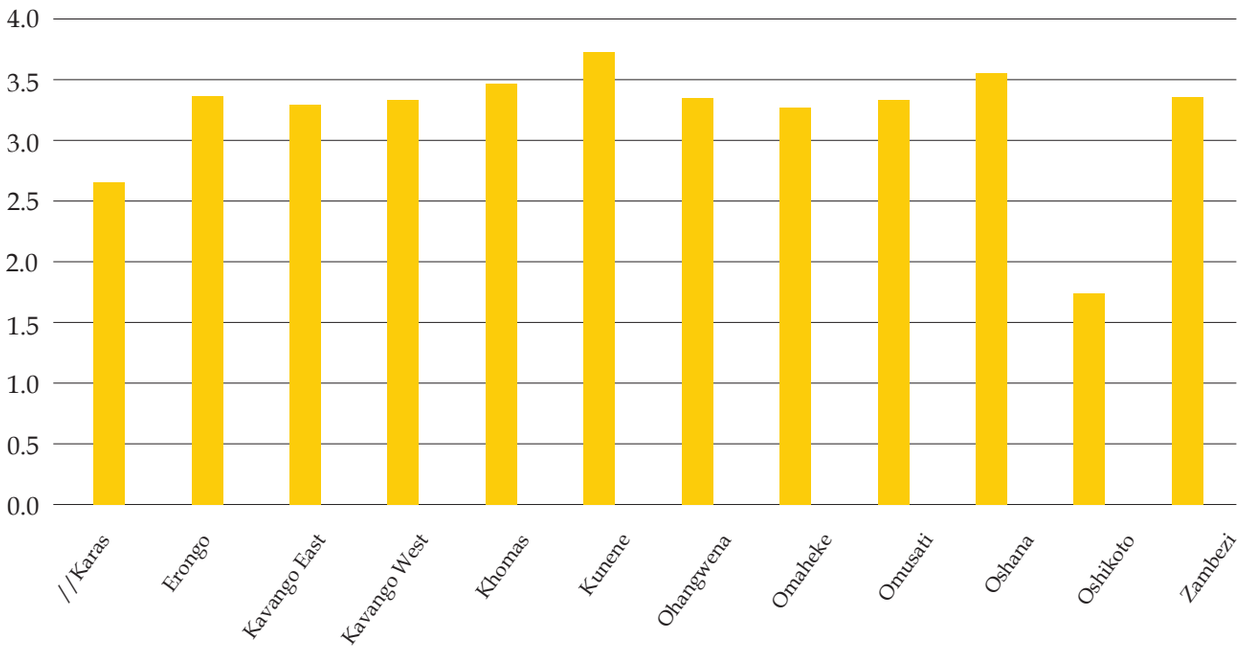


Figure 22: Understanding of the concept of open access

7.1 Institutional measure towards the promotion of initiatives

Overall, this category had (2.9) rating putting the institutional measures taken towards the *Promotion of initiatives targeted at encouraging scientific knowledge* closer to it happening only "sometimes". The Encouragement in the sharing of scientific knowledge derived from research was at the highest level. This is closely followed by the *Sharing of scientific research results* and the *Sharing of scientific data*, in the third place is the *Sharing of scientific research methods* and lastly, the *Emphasis of the public role of science*. The results are presented in Figure 23.

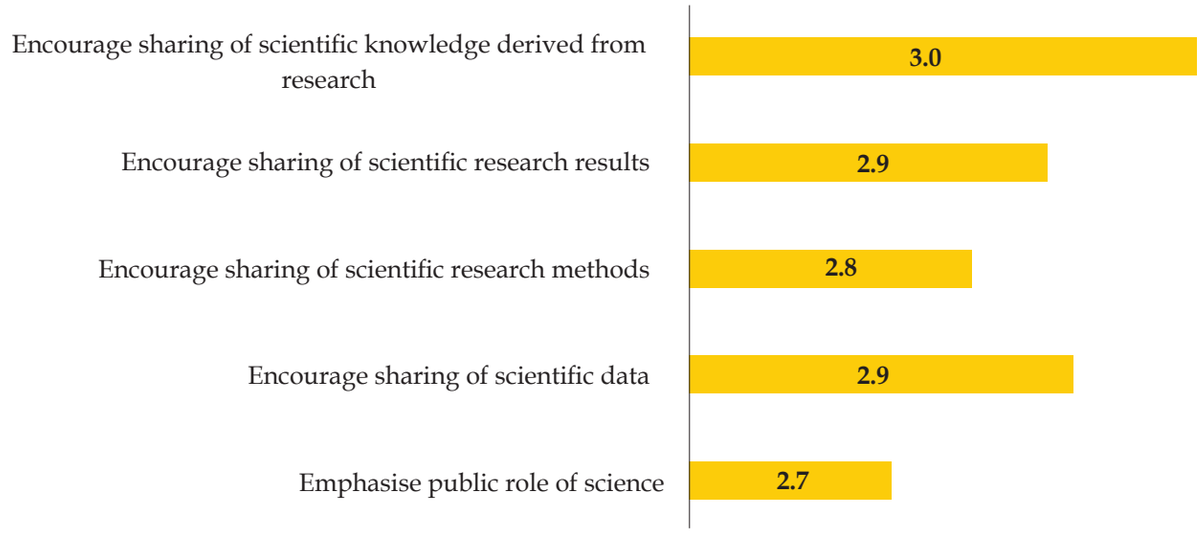
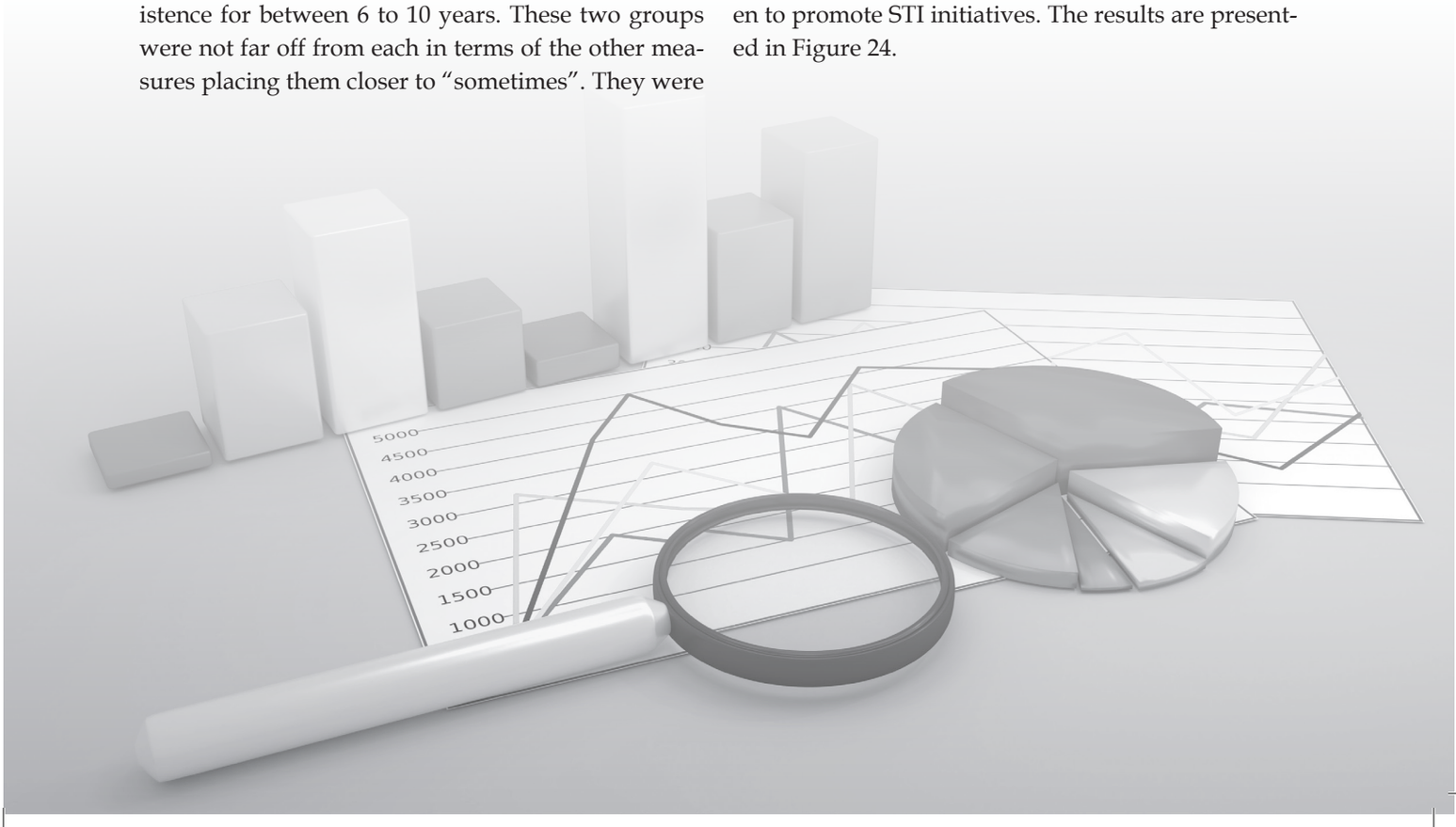


Figure 23: Overall Institutional measures towards the promotion of initiatives in STI

The age group less than 25 years chose the *Sharing of scientific knowledge derived from research*, the *Sharing of scientific data* and the *Emphasis of public role of science* as the most important where the promotion of STI is concerned. The age group 36 to 45, 26 to 35, and 46 to 60 all gave similar views as a "sometimes" occurrence when trying to achieve STI knowledge promotion. Although the age group greater than 60 had consistent patterns, they also scored the *Sharing of scientific knowledge derived from research* the lowest.

At an organisational level of existence of firms, interviewed organisations in existence for less than a year, placed the *Sharing of knowledge derived from research* as the most important measure taken in the promotion of STI, this was not far off from organisations in existence for between 6 to 10 years. These two groups were not far off from each in terms of the other measures placing them closer to "sometimes". They were followed by the organisational existence category between more than 10 years. The organisational existence of between 2 to 5 years had the lowest overall ranking in all categories placing them between "sometimes "and "rarely", but closer to the latter.

At a regional level Omusati region has placed importance in the promotion of STI at the *Emphasis on the role of science in public* and the *Sharing of scientific data* and are seen as measures that need to be taken often. The same can be said for all the other categories in the same region. Most regions in all categories had ratings closer to using the measures "sometimes" to promote STI initiatives. Although Oshikoto region had the lowest ratings in all the categories at between "never" and "rarely" when it comes to measures taken to promote STI initiatives. The results are presented in Figure 24.



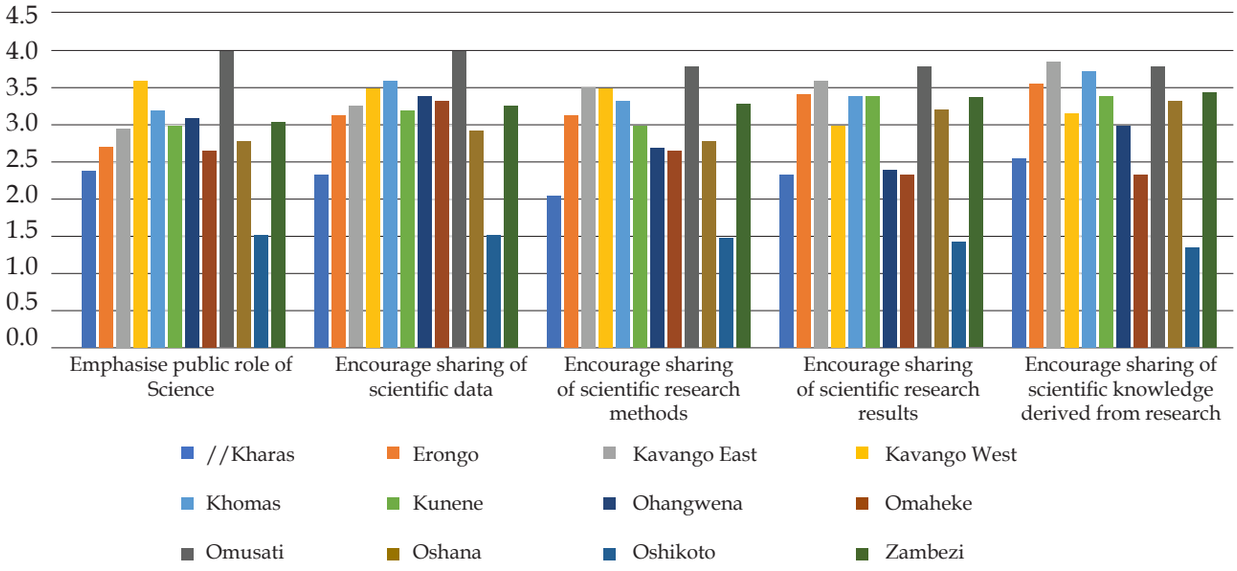


Figure 24: Level of occurrence of measures taken to promote STI initiatives

Staff members with no experience in publishing their data on an open access database have the highest percentage (33%), followed by the staff members with very low (<23%) experience. Only 3% of the staff members have very high (=> 80%) experience and 9% with high (60 - 79%), those with medium experience 19% (40-59%) and low 19% (20-39%) experience in publishing their data on an open access database. Overall, the majority of the staff members did not have experience in publishing their data on an open access database. Figure 25 shows the representation of the results.

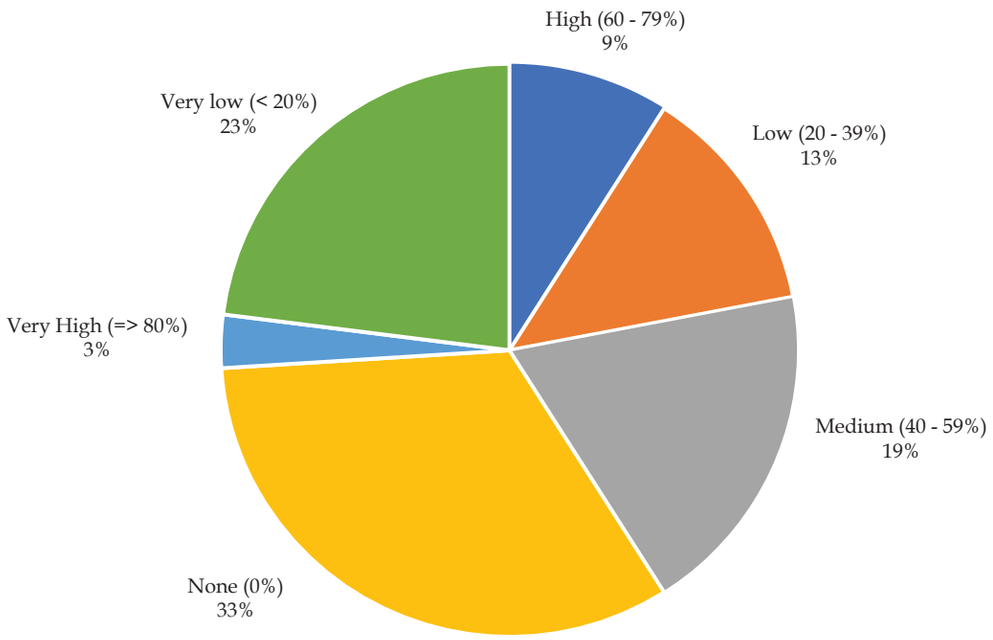


Figure 25: Percentage of staff with experience in publishing data on open access databases

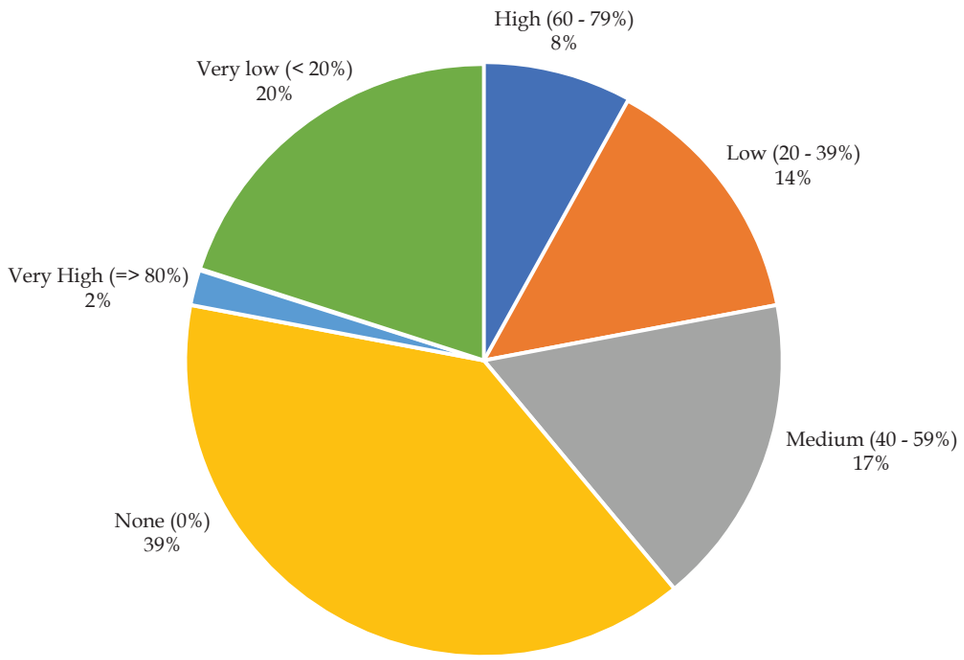


Figure 26: % of staff with professional development training on open data publishing & preparation

About 39% (None) of the research staff had any professional development training on preparing and publishing open data. Only 2% (=>80%) had professional development training, followed by 8% High (60-79%), 17% Medium (40-59%), 14% Low (20-39) and 20% Very low (< 20%). Only 20% of the staff had at least one day of professional development training on preparing and publishing open data.

8 PROMOTION OF INCLUSIVE, NON-DISCRIMINATORY WORK CONDITIONS, ACCESS TO EDUCATION AND EMPLOYMENT IN SCIENCE

Overall, there were respondents said that there was "Sometimes" to "Often *Encouragement of participation of women and other under-represented groups to remediate inequalities*. While *Assurance of equal access to employment in scientific research and equal opportunities for initial education and training* required for scientific research careers as being said to happen "sometimes". Although in the same rating category *Encouragement of sharing of scientific knowledge derived from research and equitable conditions for work for all scientific research* had the least ratings. The results are presented in Figure 27.

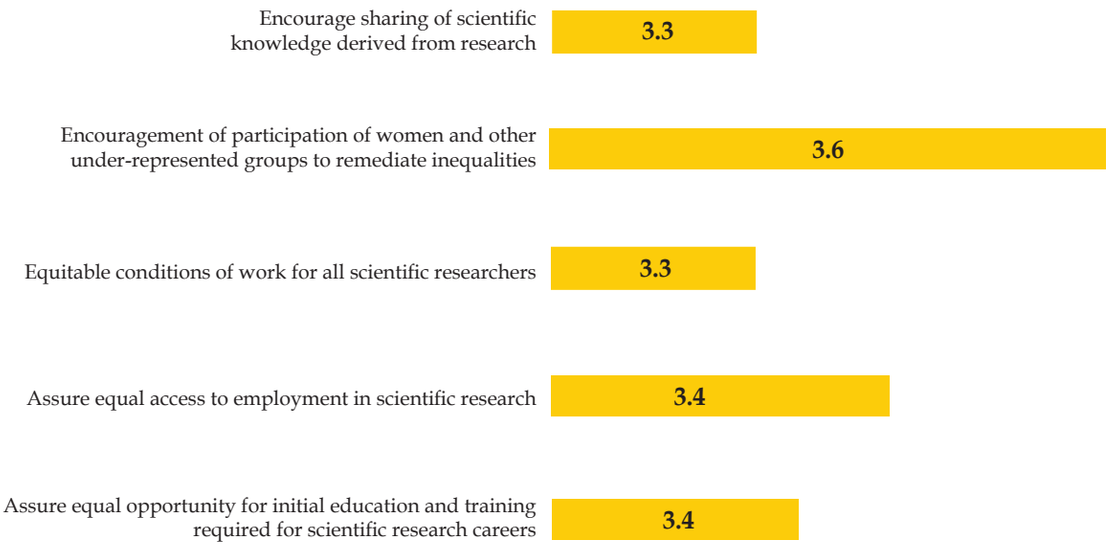


Figure 27: Overall institutional measures to emphasis an inclusive workplace

Respondents from organisations that have been in the STI business for over 10 years and less than one year had the highest rating in the category for the *Encouragement of participation of women and other under-represented groups to remediate inequalities*. The lowest category was observed in the category *Equal opportunities for initial education and training required for scientific research career* and in the *Encouragement of sharing of scientific knowledge derived from research* by organisations that have been in existence for between two to five years. Most of the measures in different organisational categories happened "sometimes". Figure 28 shows the presentation of the results.

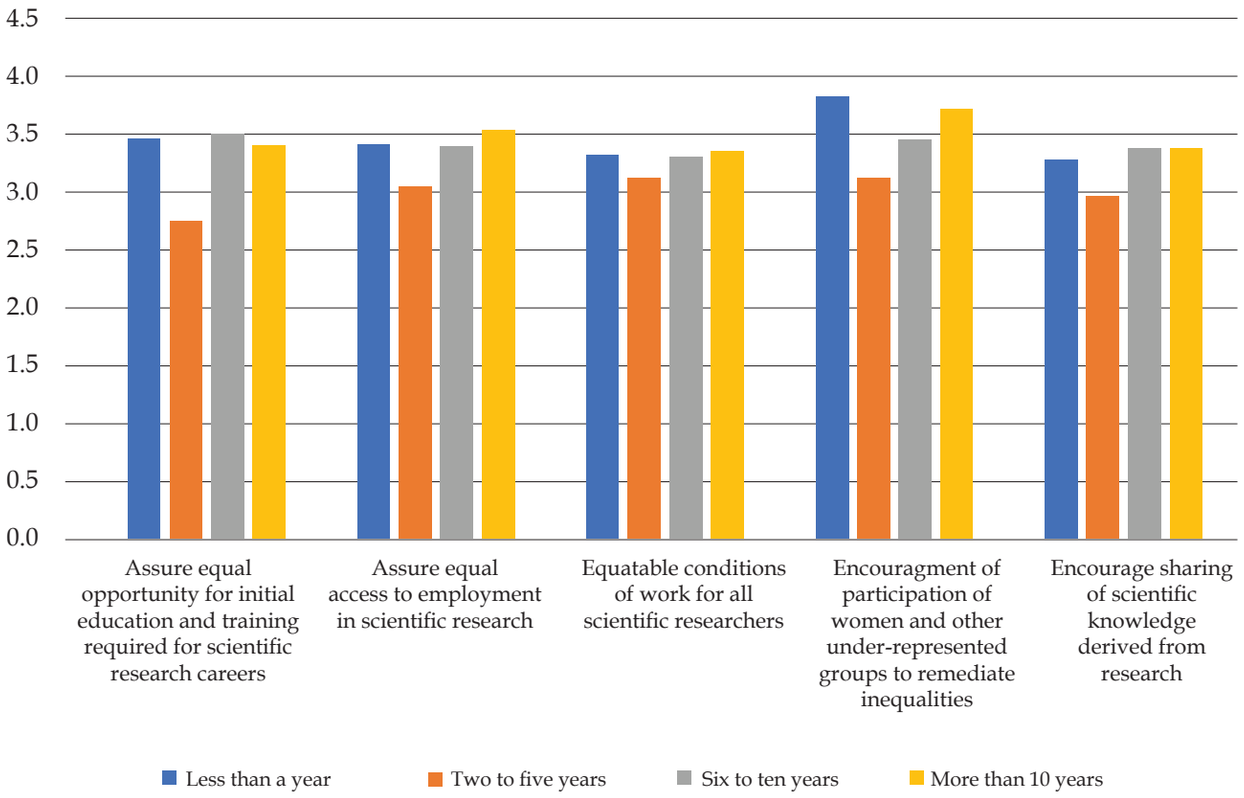


Figure 28: Organisational representation of measures to emphases an inclusive workplace

At a regional level, Erongo had the highest measure at "always" where the *Participation of women and under-represented* was concerned. This was followed by Kunene in the same category. Kunene had the highest measure in the *Equal opportunity for initial training and education for scientific search careers* and *Sharing of knowledge derived from research*. Omusati had the highest measure in the in *Equitable work conditions for scientific researchers*. //Karas had the lowest overall rating for all measures related to an inclusive workplan. The results are presented in Figure 29.

"At a regional level, Erongo had the highest measure at "always" where the Participation of women and under-represented was concerned. This was followed by Kunene in the same category"

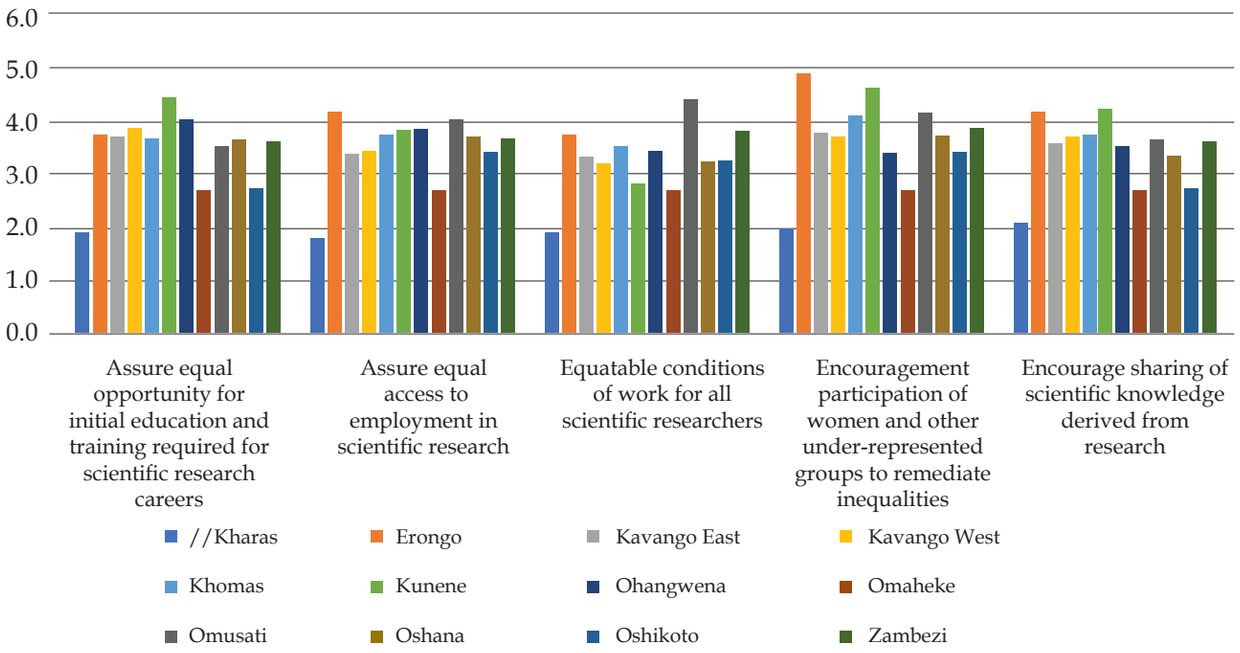


Figure 29: Regional measures towards an inclusive workplace

Where measures are taken regarding organisations ability to address gender imbalances, youth development, previously disadvantaged and people with disabilities most organisations had affirmative action policies or hired according to it. Some organisations are guided by the Namibian Labour Act, whilst other employment sectors resorted to the training of people in the said categories. The more established organisations have included most of these issues in their policies.

In terms of measures taken to promote equal opportunities for employment in STI, *Equitable hiring and appointing of positions* was rated the highest in this category. Some stated that they used the 50/50 recruitment score for positions. The appetite for a career interest in STI was also cited as a big hiring criteria.

> "In terms of measures taken to promote equal opportunities for employment in STI, Equitable hiring and appointing of positions was rated the highest in this category..."

9 PROMOTION OF HUMAN RIGHTS OF RESEARCHERS

Overall, most organisational respondents assigned an equal rating to the *Conducting of scientific research in a manner that's respectful to the human rights of the researcher*, *Respectful conducting of scientific research or research subjects*, the *Promotion of human rights in sharing scientific advancements and its benefit* and the *Promotion of access to knowledge derived from research results*. The *Promotion of open access to research results* had the lowest rating in the category. The results are presented in Figure 30.

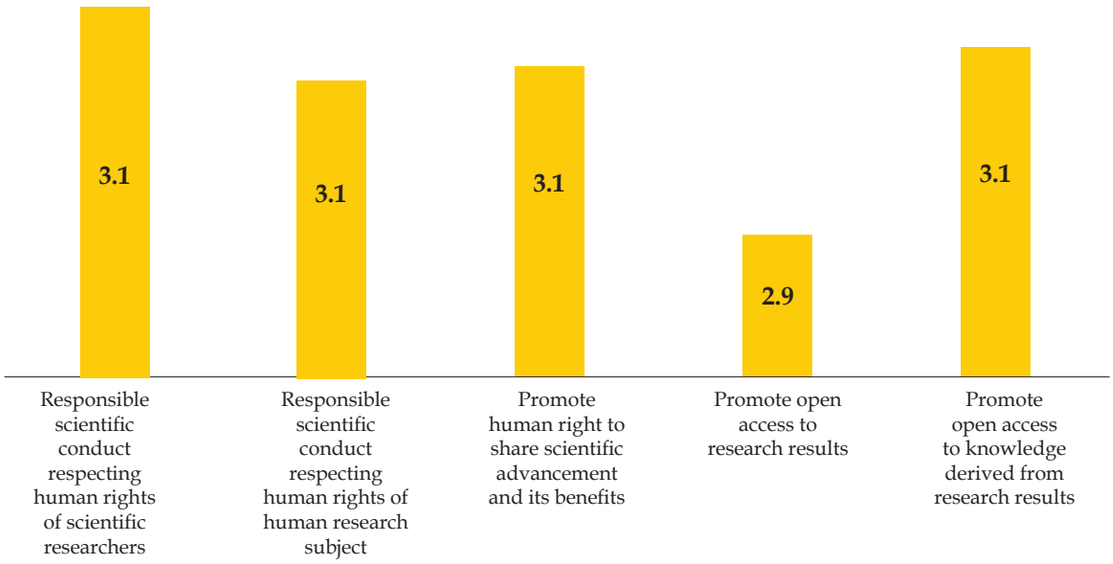


Figure 30: Overall measures taken to align science with human rights

Organisations that have been in existence for between 6 to 10 years scored the highest in all categories, this was followed by organisations in existence for less than a year in the categories *Promotion of human rights to share scientific knowledge derived from results*, *Promotion of open access research results* and the *Promotion of human rights in the sharing of scientific advancements and benefits*. The *Conducting of scientific research that respects the human rights of scientific researcher* fared in the same category rating as the previous categories. The other categories are striding between "rarely" and "sometimes", where human rights are concerned.

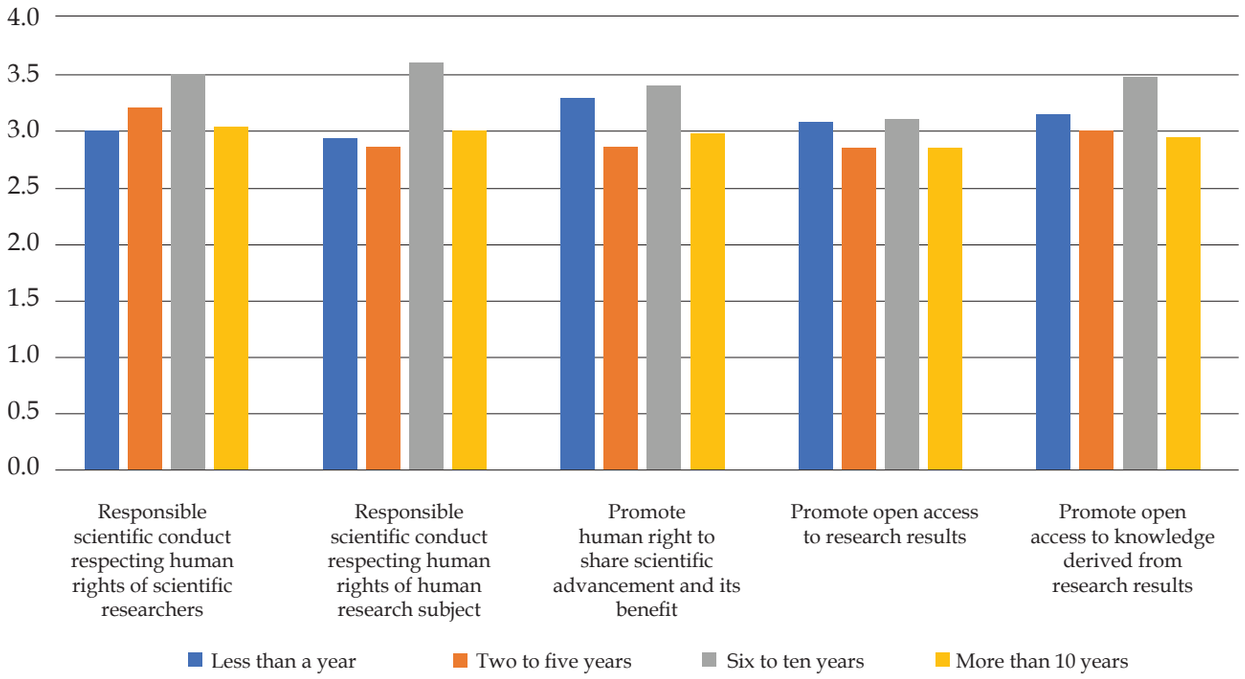


Figure 31: Organisational existences in measuring the alignment of science to human rights

At a regional level we can see that Kunene had the highest rating in three categories: the *Promotion of human rights in sharing scientific advancement and its benefits*, the *Promotion of open access research results* and the *Promotion of open access to knowledge derived from research results*. Most of the other regions are saddling between "rarely" and "sometimes" where the promotion of human rights is concerned. Moreover the // Karas region had the lowest rating in all categories were the promotion of human rights of the researcher is concerned.

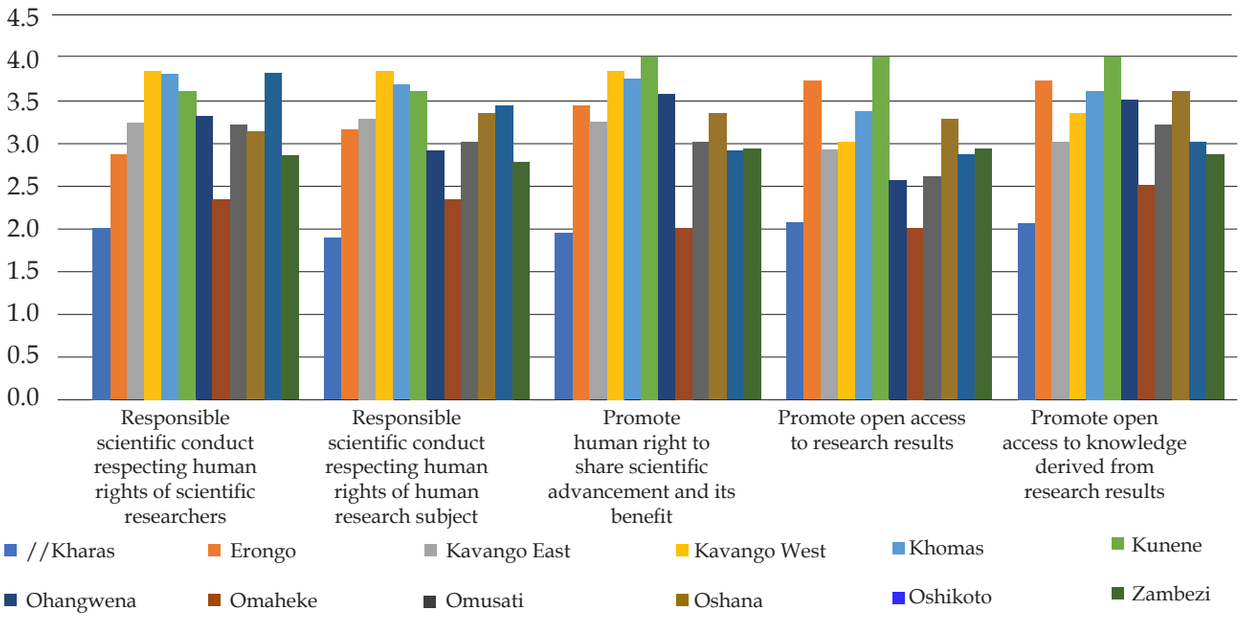


Figure 32: Regional representation of the promotion of human rights of researchers

Some of the obstacles observed by organisations in the promotion of human rights were financial in nature. Some of the issues stated was the lack of understanding of basic human rights and how it aligns to science, lack of organisational information sessions on human rights at the workplace and others simply had no idea.

10 THE BALANCING OF FREEDOM, RIGHTS AND RESPONSIBILITIES OF RESEARCHERS

Overall, the *Respect for public accountability* was the measure most utilised by the organisations to measure the balance of freedoms, rights and responsibilities. This was followed by the *Execution of scientific research in a humanely and socially responsible manner*, and the *Execution of scientific work in an ecologically responsible manner with an intellectual and academic freedom that is appropriate to researchers' tasks*. The *Execution of scientific work in a scientifically responsible manner* had the least rating. Figure 32 depicts the results.

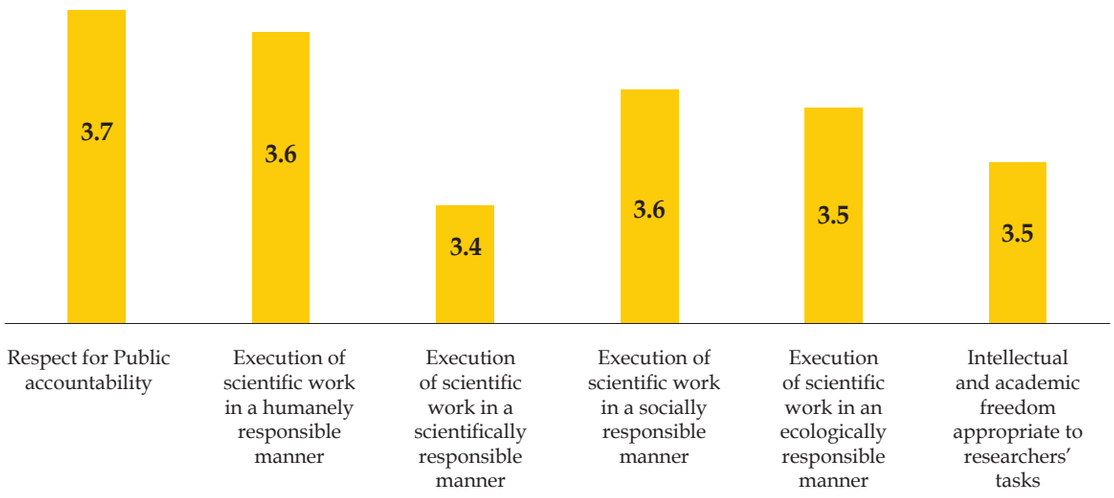
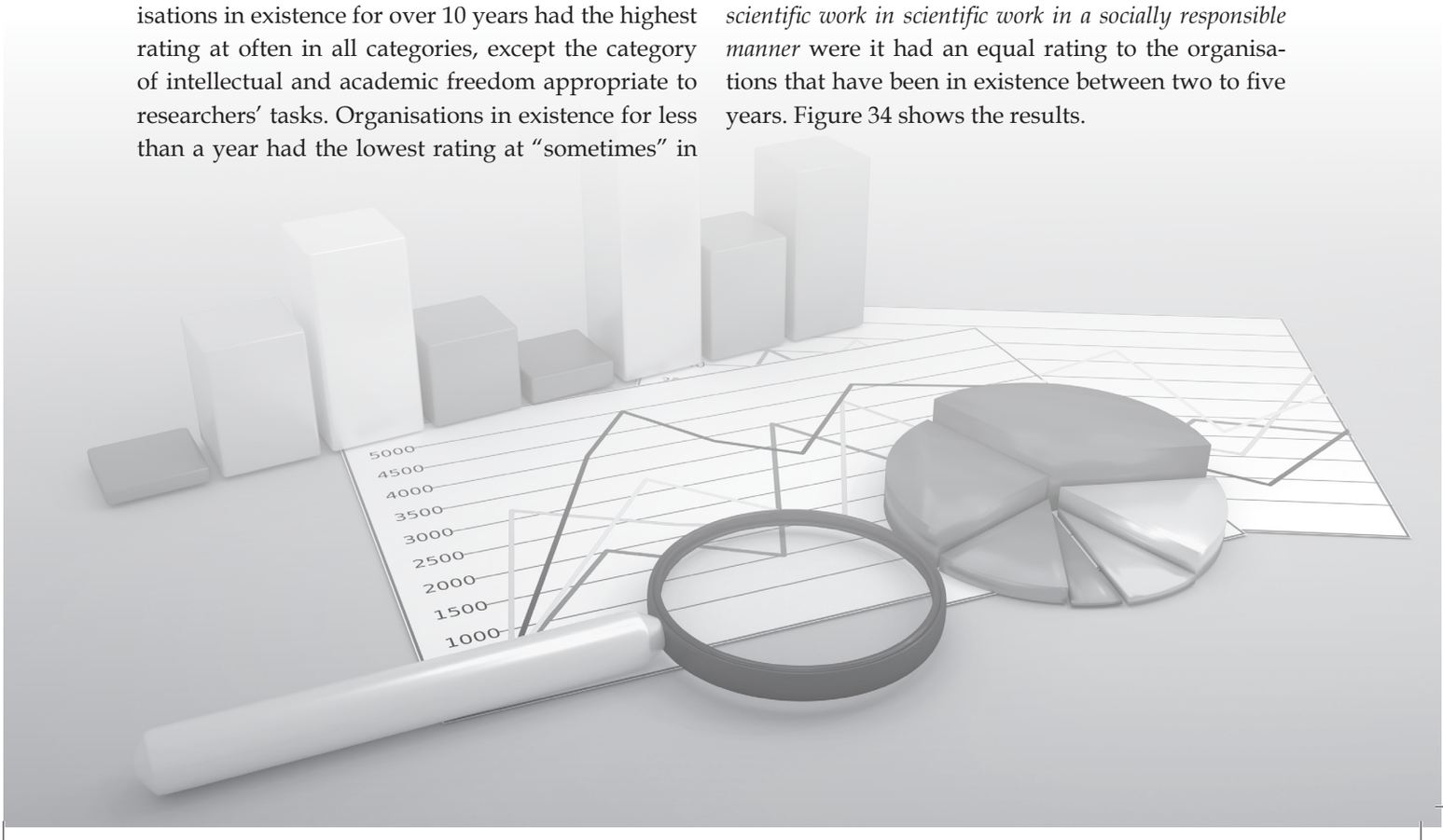


Figure 33: Overall measures taken for the balance of freedoms, rights and responsibilities of researchers

From an organisational existence point of view, organisations in existence for over 10 years had the highest rating at often in all categories, except the category of intellectual and academic freedom appropriate to researchers' tasks. Organisations in existence for less than a year had the lowest rating at "sometimes" in most categories except in the category *Executions of scientific work in scientific work in a socially responsible manner* were it had an equal rating to the organisations that have been in existence between two to five years. Figure 34 shows the results.



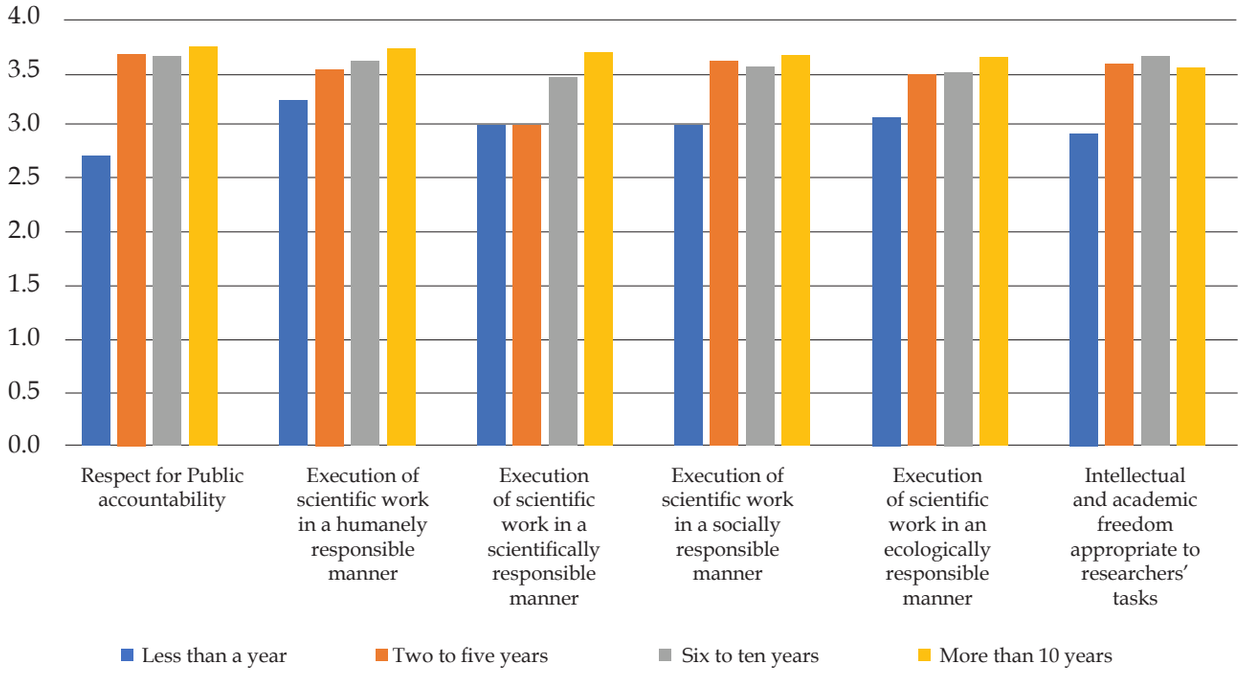


Figure 34: Organisational existence measures taken towards the balance of freedom, rights and the responsibilities of researchers

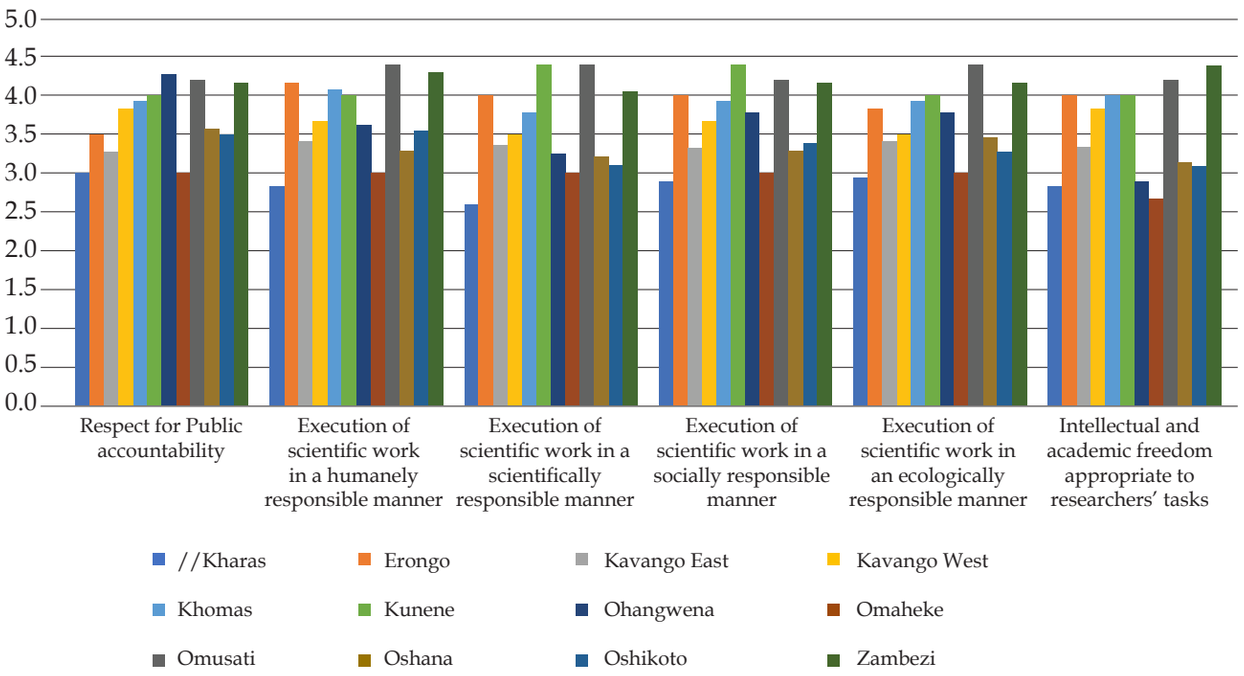


Figure 35: Regional measures taken towards the balance of freedom, rights and the responsibilities of the researchers

From a regional perspective, the Zambezi and Omusati regions had the highest ratings collectively in most categories at "often", where measures towards the *Balance of freedoms, rights and responsibilities of researchers* is concerned. Most of the categories were in the rating "sometimes" with regards to measures taken. //Karas region had the lowest ratings regionally with the exception of one category in which Omaheke region was included at *Intellectual and academic freedom appropriate to researchers' tasks*.

11 RESEARCH INTEGRITY, RESEARCH ETHICS AND ETHICS OF STI

Overall, where organisational measures were taken towards scientific integrity the categories: the *Establishment of means to address ethics of science, research integrity* and the *Establishment of support for scientific ethics policies* had the highest rating from respondents. The *Establishment of support science ethnics committees* had the lowest rating (See Figure 36).

At an organisational level, the highest ratings were in the *Establishment of means to address research integrity* and the *Support for science ethics policies* by organisations that have been in establishment for less than a year, and the organisations in establishment for between six to ten years. All the other organisations were in the "Sometimes" category of rating of use of measures of scientific integrity. The low rating of "rarely" taking measures of scientific integrity was in the category of organisations that have been in existence for less than two to five years while the lowest rating was in the category, the *Establishment of means to address ethics of science, research integrity* and the *Stimulation of researchers' professional ethics*. Results are presented in Figure 37.

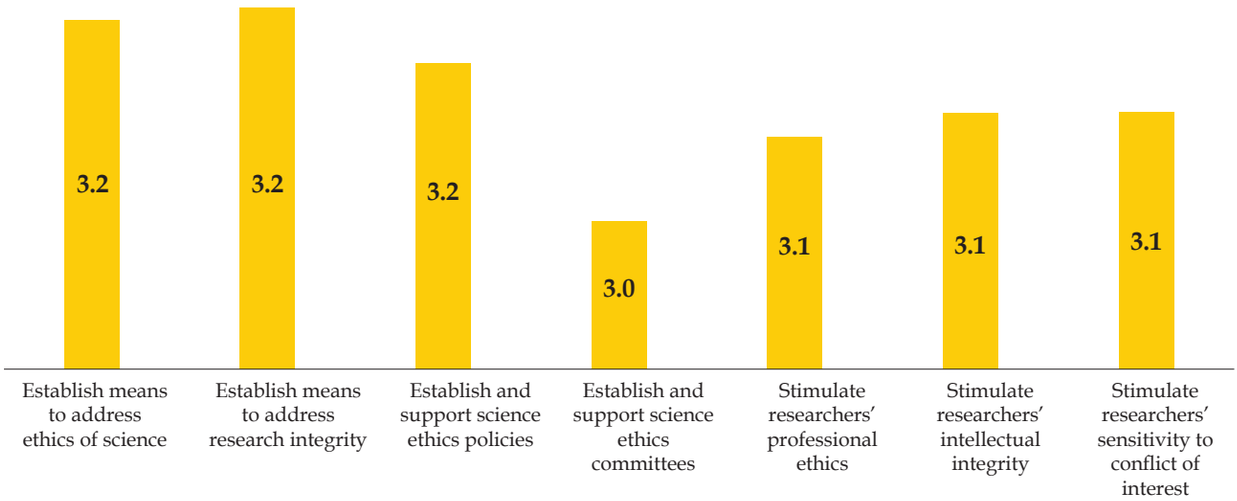


Figure 36: Overall measures taken with regards to scientific integrity

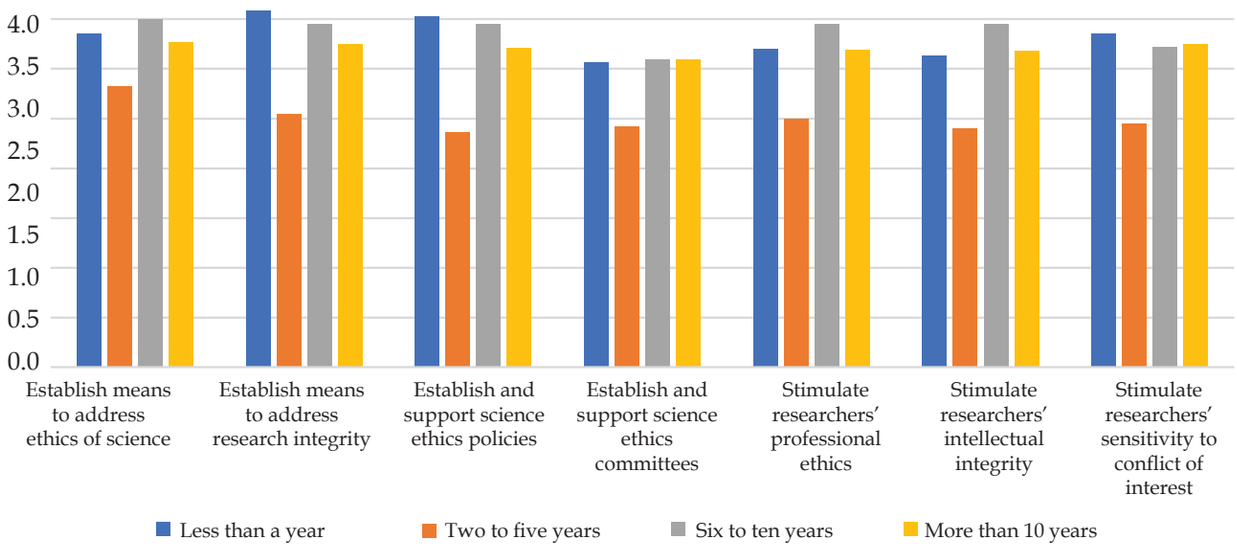


Figure 37: Organisational measures taken for scientific integrity

In the overall regional measures Zambezi, had the highest rating in all 6 of the 7 scientific integrity measures being done often except in the establishment and support of science ethics committees. The Erongo region had 5 out of the 7 as occurring often except in the categories, the *Establishment of means to address ethics* and the *Stimulation of researchers' professional ethics*. Most of the other measures were between "sometimes" and "often" for the measures of scientific integrity. //Karas, Omaheke and Oshikoto regions had the lowest levels of scientific measures, stating most of the measures as rarely occurring. There were also some measures in the same regions which had better ratings. See Figure 38 for results.

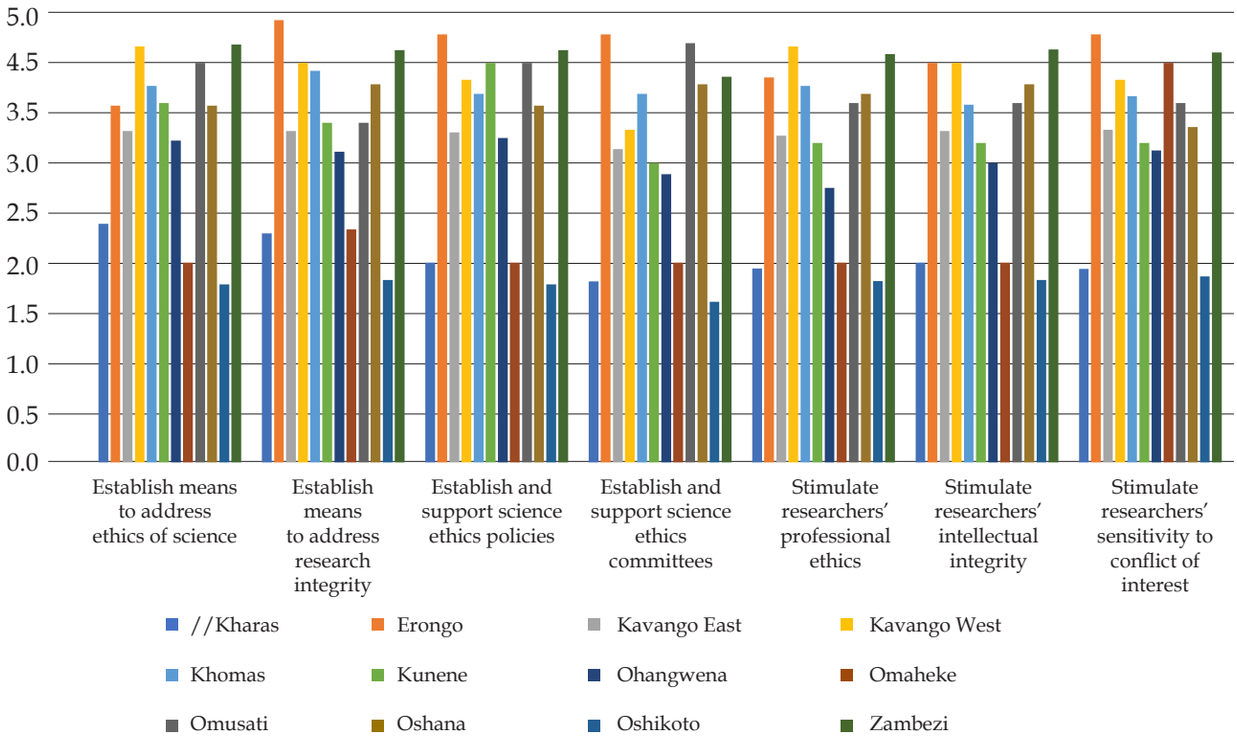


Figure 38: Regional measures taken towards scientific integrity

The overall measures taken by institutions were higher in the professional ethics category at 69%. 24% of the respondents were uncertain about the stand of their organisations' measures towards the *Protection of intellectual property*, *Research integrity*, *Science ethics* and *Professional ethics*. 7% of the respondents felt there were no measures taken towards those initiatives. In the overall rating, the *Protection of intellectual property*, *Research integrity* and *Science ethics* had equal rating closer to non-occurrence, as measures towards protection of scientific integrity had not been taken. Figure 39 is a representation of results.

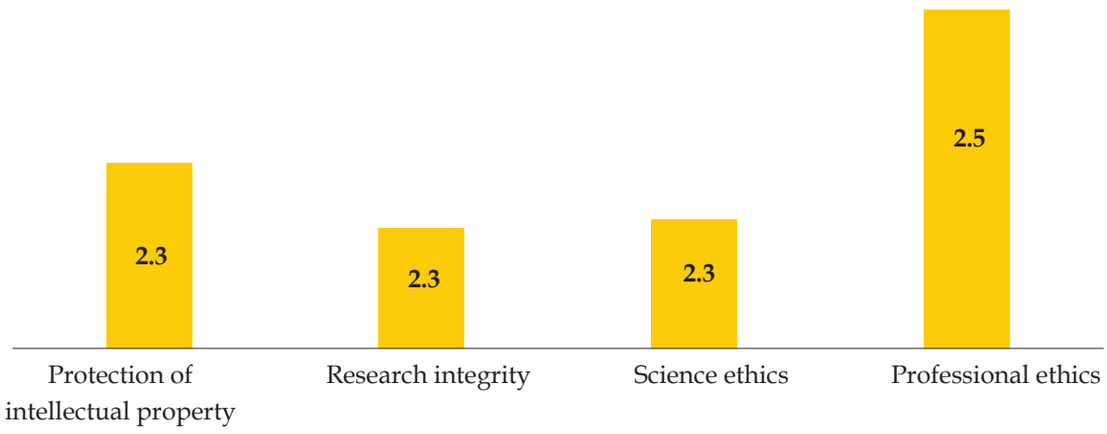


Figure 39: Measures taken towards research ethics and integrity

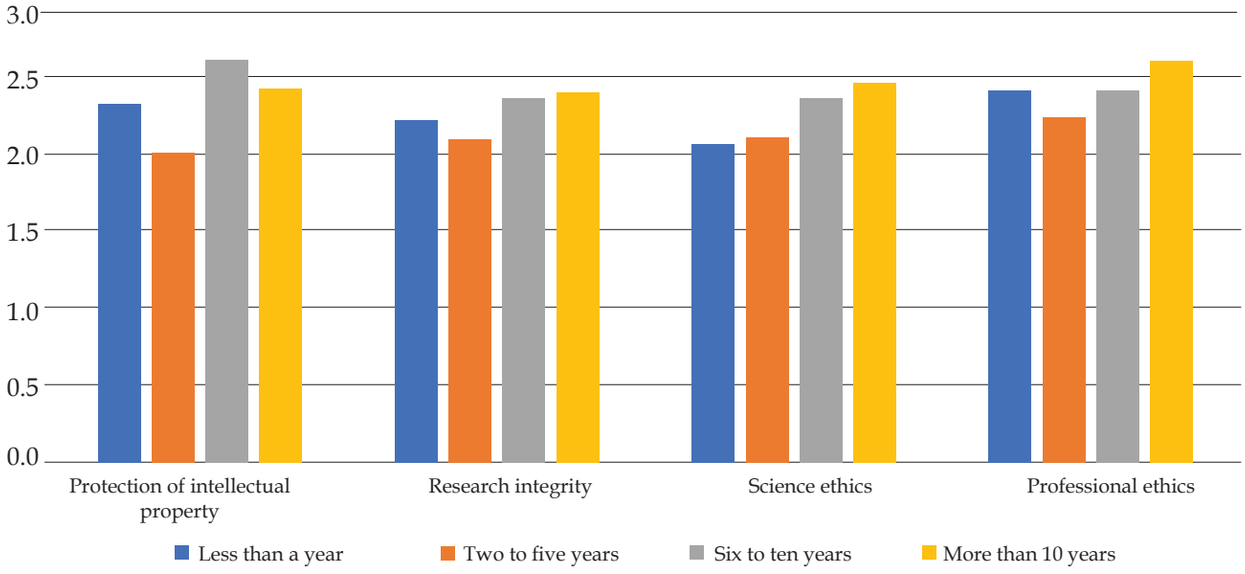


Figure 40: Organisational existence for measures taken towards research ethics and integrity

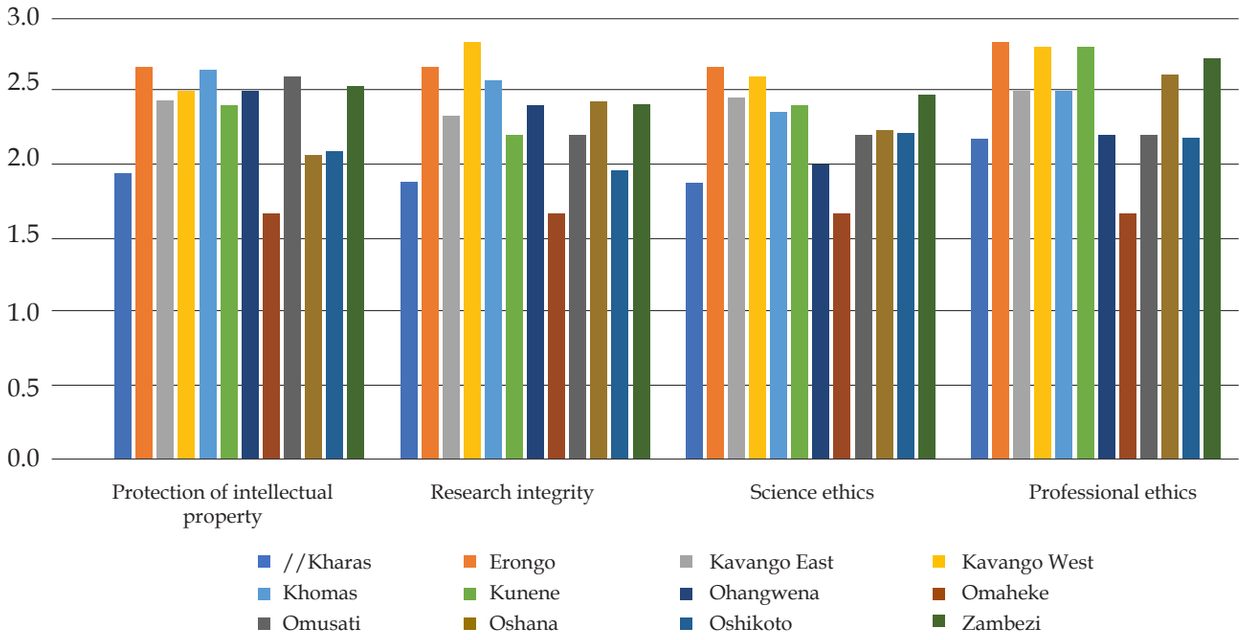


Figure 41: Regional measures towards research ethics and integrity

From an organisational existence perspective, organisations that have been in existence for over ten years placed importance on *Professional ethics* and *Science ethics* and *Research integ*rity. Organisations in existence for between six to ten years chose the measure of the *Protection of intellectual property*. Organisations that have been in existence for between two to five years had the lowest rating in all categories of the measures except in the category *Science ethics* in which the organisations in existence for less than a year scored the lowest. This is represented in Figure 40.

Figure 41 is a representation of the regional responses of the respondents to research ethics and integrity. Erongo (*Professional ethics*) and Kavango west (*Research integrity*) had the highest rating of the measures taken. Omaheke region had the lowest rating for measures taken in all four categories.

In terms of evidence provided as a measure to prove Figure 39, institutions have cited the approval of research proposals through ethic committees for ethical clearance and the acquisition of the necessary approvals from the relevant institutions like the Namibian Standards Institution (NSI) and the Business and Intellectual Property Authority (BIPA). Some cited the application of necessary research licenses from institutions like National Commission on Research, Science and Technology (NCRST) and Ministry of Environment, Forestry and Tourism (MEFT) and other written consents from the necessary government organisations and parastatals. The signing of non-disclosure agreements

12 IMPORTANCE OF HUMAN CAPITAL FOR A SOUND AND RESPONSIBLE SCIENCE SYSTEM

In terms of overall measures taken to develop institutional polices, policies around the *Protection of health and security*, *Career development prospects* and *Life-long learning opportunities* had the highest level of rating. This was followed by *Inclusive and transparent performance appraisal systems*. Scientific researchers and *Scientific researchers work conditions* had equal ratings. Mobility and international travel had the least rating in the measures. The results are presented in Figure 42.

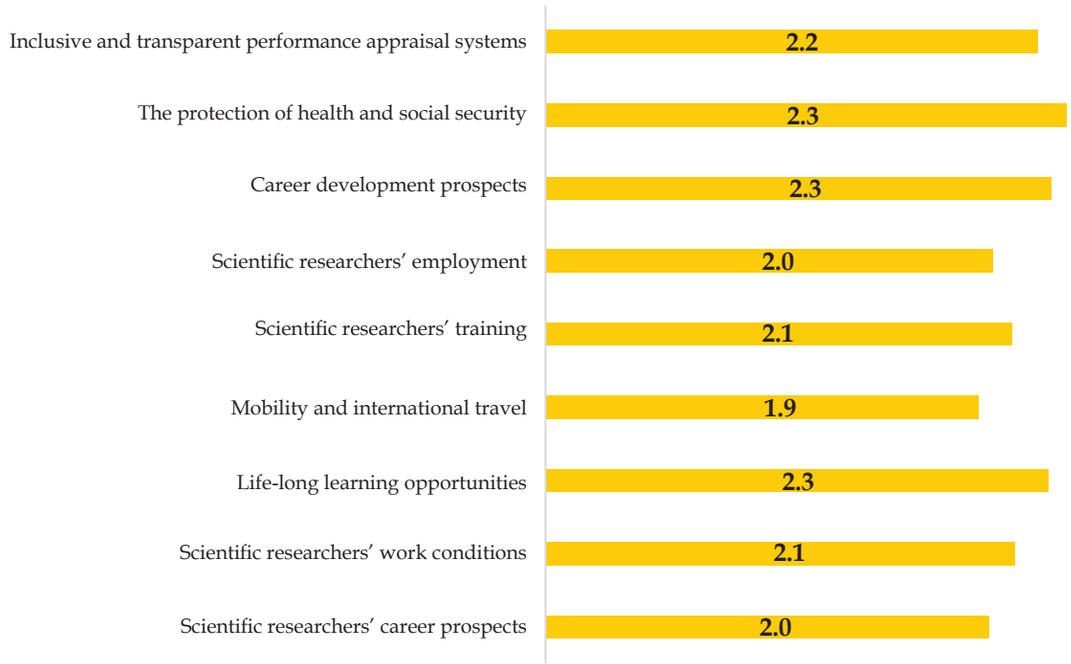


Figure 42: Institutional measures taken towards the development of policies for the above

Institutions in existence for more than ten years place importance on the protection of their employee's health and security and this featured as the highest measure taken in all the categories. In all categories of policy development, institutions in existence for more than 10 years and those in existence for between six to ten years, had almost similar rating patterns while the more than ten-year category was slightly higher. The institutions in existence for less than one year had the lowest rating in all categories of measures at 7 out of 9, except in the category inclusive and transparent performance appraisal and career development prospects where the two to five institutional existences had the lowest rating.

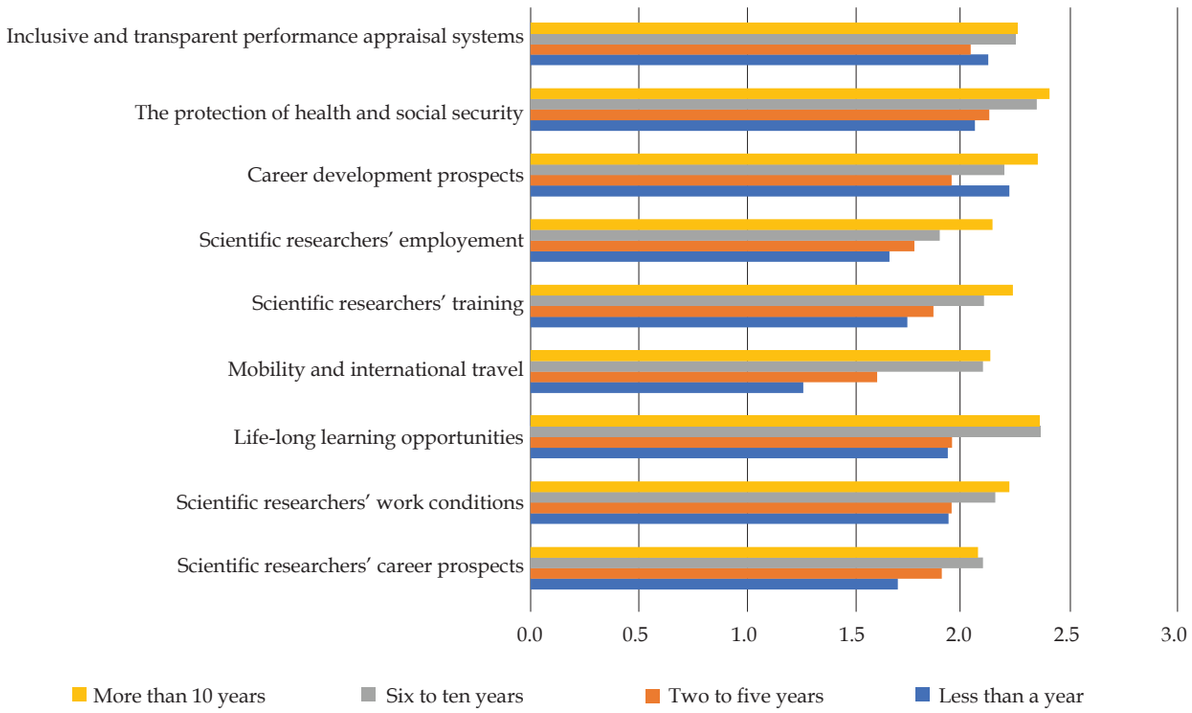


Figure 43: Institutional measures taken to ensure sound human capital and responsible science systems

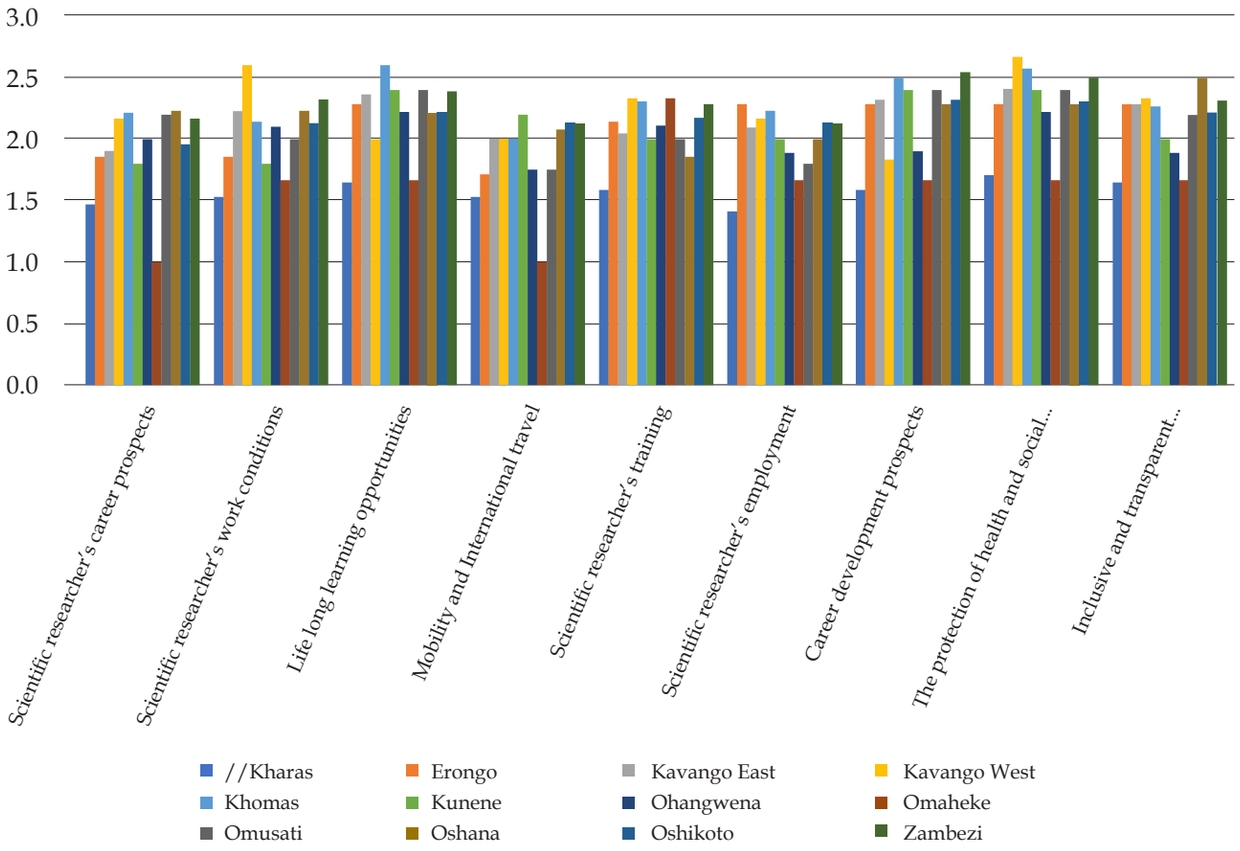


Figure 44: Regional measures taken towards institutional policy aimed at sound human capital and responsible science system

//Karas region had the lowest overall rating in all the categories of institutional policy development. The highest rating was observed in Kavango West for the protection of health and security followed by Khomas in the same category. These categories were closer to policy inclusion at an institutional level. Omaheke had the lowest rating in two categories of *Scientific researchers' career prospects* and *Mobility and international travel*. This was followed by the //Karas region with the lowest mean for all the measures. The other regions had mean ratings that did not vary much from each other in the assessed categories. The results are presented in Figure 44.

In terms of the evidence requested towards institutional measures taken to ensure sound human capital and responsible science systems the responses where: staff development through international training workshops of between three to six months or no training due to the lack of funds. Generally it seems the question was not well understood, as the answers had varying degrees not related to the preceding question or the section was left blank

Obstacles institutions encounter whilst promoting human capital for research

From the overall obstacles encountered, we can see that the promotion of human capital is hindered by financial constraints/lack of dedicated budget at 32%. This is followed by a lack of training, capacity and/or expertise at 22%, lack of infrastructure at 21%, lack of knowledge or awareness at 16% and lastly with inadequate legislation at 9%. The results are depicted in Figure 45.

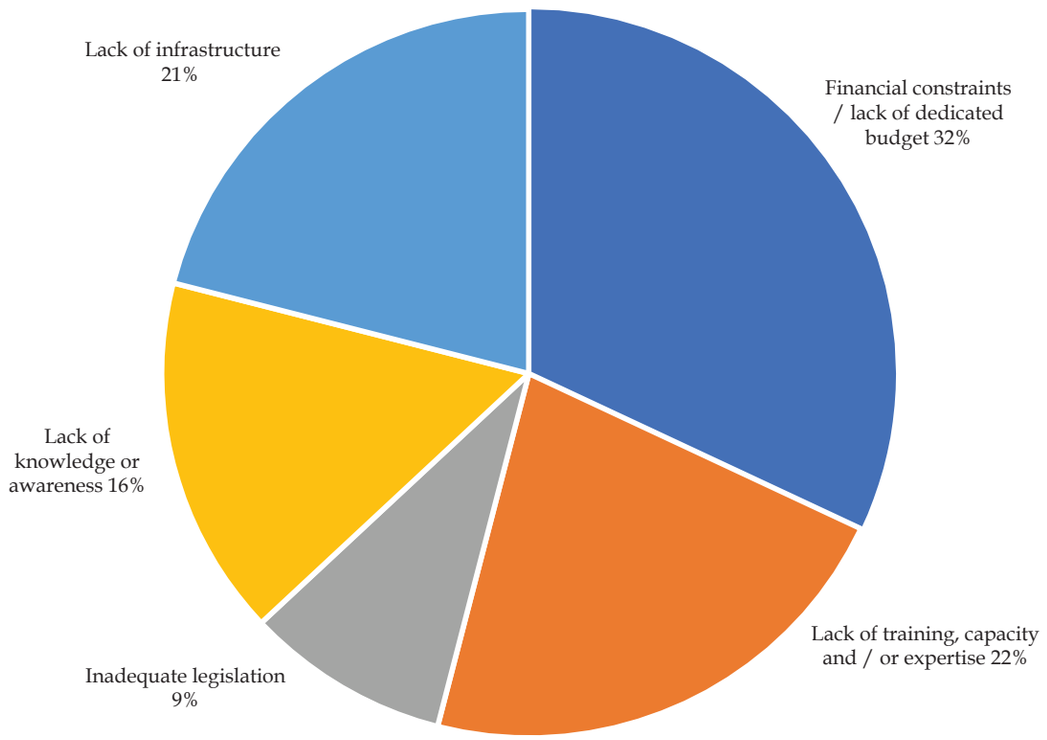


Figure 45: Obstacles encountered towards the promotion of human capital

In terms of organisational tenure, we can see that the category for *Financial constraints/lack of dedicated budget* still has the rating from all organisational, however, the category six to ten years also had a higher rating for lack of infrastructure. *Inadequate legislation* had the lowest rating in all the tenure categories. *Lack of training capacity and/or expertise* had near enough equal rating with the organisational tenure of between two to five years scoring the lowest. In the category *Lack of knowledge and awareness* the organisational tenure six to ten years picked this category as the main obstacle. Figure 46 represents this category.

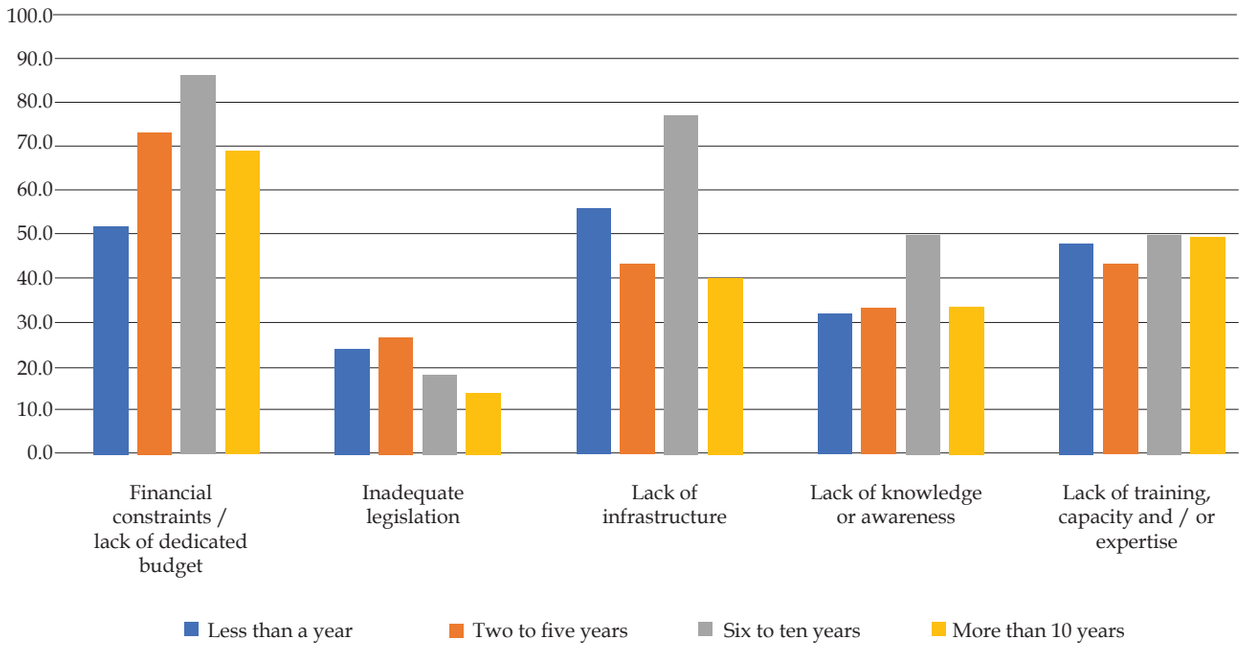


Figure 46: Organisational tenure obstacles towards the promotion of human capital for research

At a regional level, the highest level of obstacles is clustered in the *Financial constraints/lack of dedicated budget*. This is followed by the cluster *Lack of training capacity and/or expertise*. Erongo did not pick the *Lack of knowledge or awareness*, whilst Omaheke did not pick the *Lack of infrastructure* as an obstacle. Although it had the lowest rating in terms of obstacles *Inadequate legislation* was not picked by Kavango west, and the Omaheke region.

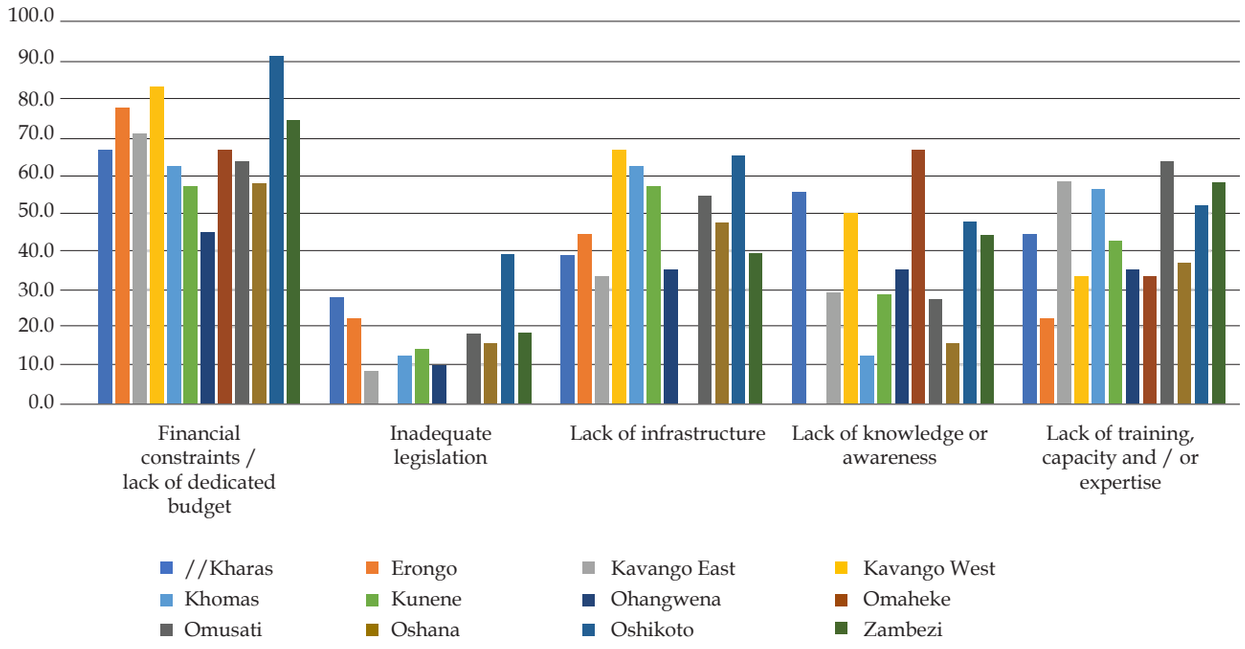


Figure 47: Regional obstacles hindering the promotion of human capital for research

Other obstacles cited include timely provision of materials for research, acquisition of necessary machinery and equipment, lack of transport for research mobility and the use of affirmative action as a means of hiring human capital in research.

13 PERCEPTIONS ON ACHIEVING SUSTAINABLE DEVELOPMENT GOALS (SDGs)

An overwhelming 71% of respondents had no measures in place aimed towards achieving SDGs. Whilst a 51% of the respondents felt that this was as a result in the obstacles faced in achieving SDGs. Figure 48 represents this.

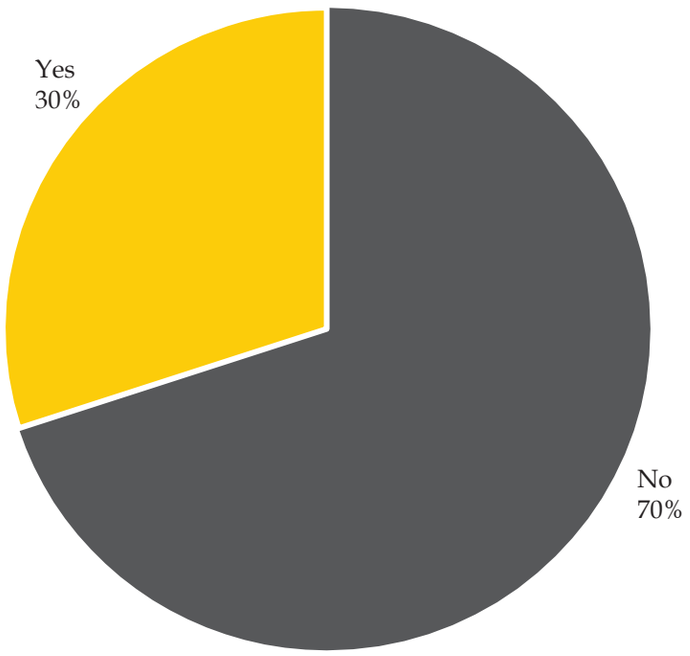


Figure 48: Response on whether there were measures put in place towards SDGs

There are 17 SDGs all spanning in the different sectors that respondents belong to. However, the goals in which most organisational measures were embedded to towards the attainment of SDGs is *Strengthen the means of implementation and revitalize the global partnership for sustainable development (SDG 17)*, especially towards capacity building, *End hunger, achieve food security and improved nutrition and promote sustainable agriculture (SDG 2)* through increased food and agricultural production, *Achievement of gender equality and empower all women and girls (SDG 5)* which is achieved in training of women in the various sectors that respondents are from, *Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (SDG 4*) through accredited training and *Ensure healthy lives and promote well-being for all at all ages (SDG 3)* through the promotion of health awareness. There were also those who did not have any knowledge of SDGs.

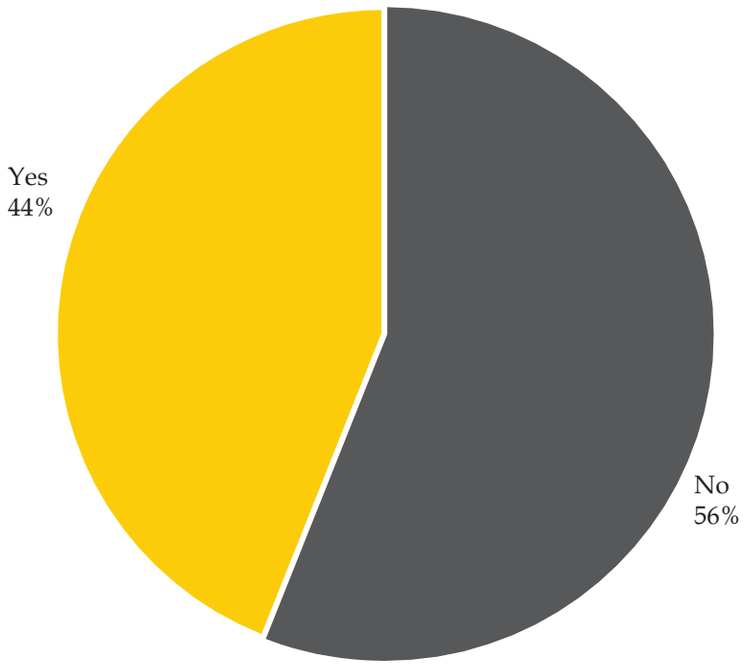


Figure 49: Obstacles observed in organizations to attain SDGs

44% of respondents felt that their organisations experienced obstacles when trying to attain SDGs in their organisations, although 56% felt they had no obstacles in attaining SDGs. Some of these obstacles were cited as being finding the partners for collaboration, capacity building for education and training and have even questioned the quality of the education/training provided. Some have cited municipal provision of services as an obstacle at attaining SDGs in organisations. The lack of infrastructure has also hindered the necessary ICT programmes needed towards education through social corporate responsibility. However, there also seem to have been a misunderstanding of the question.

14

14 CONCLUSION

The data collected and analysed from the views of the stakeholders gives a synopsis of the realities that exist in the STI space in Namibia. Although there were more female respondents than male respondents, the male respondent's percentage was higher from the managerial occupation positions and that could explain why most of the responses were male influenced. What we experienced in this study is there is limited knowledge in the STI landscape, and this could be attributed to the fact that only a few businesses/institutional establishments that have been in existence for more than ten years participated in this survey. The levels of STI policies and initiative shows that there has been some initiative that have been more well-advertised and used compared to the others. In terms of STI policy framework, there seems to have been a more informed knowledge on the science fair and sustainable development goals. This should warrant a look into how these were promoted and disseminated. Understanding these will enable the development of appropriate approaches in the wider spread of the other STI polices and initiatives. There is room to grow and invest in the STI space because it's a space in which most Sustainable Development Goals (SDGs) challenges can be addressed. A positive to have come from the study is that more businesses/institutions seem to be aligning themselves to the greater SGDs then to country specific interventions and polices, and these seem to be shaping the STI business/institutional strategies.

There is a need to boost the uptake and growth of business/institutional capacities in certain parts of the country's regions where STIs are concerned. Ultimately the study does give an indication of where the STI status quo stands and what areas of interventions need to strengthen to help move the STI domain forward. Almost all the initiatives needed to improve and grow STIs are plagued by a lack of financial constraints above all else. This major challenge affects all facets of engagement and opportunity growth. With the right kind of financial, technical and partnership support, the challenges in STI can be tackled and overcome in the different sectors. The outcomes do not provide a clear regional difference in terms of STI experiences and initiatives of the STI landscapes. In summary, the implementation of this survey was not done with a consistent methodological approach that ensured the inclusion of all sectors in the different regions for the purpose of regional comparisons. We therefore recommend that the outcomes of this survey be treated as a pilot and utilized to assist in the roll-out of a better designed survey, which would capture sectorial diversity at regional levels.

"There is a need to boost the uptake and growth of business/institutional capacities in certain parts of the country's regions where STIs are concerned."

ANNEXURE A: UNESCO NCRST SIDA – OFFICIAL QUESTIONAIRE

Ministry of Higher Education, Technology and Innovation

NCRST National Commission On Research Science & Technology

unesco

Sweden Sverige

NAMIBIA'S SCIENCE, TECHNOLOGY AND INNOVATION (STI) LANDSCAPE ASSESSMENT QUESTIONNAIRE

The National Commission on Research, Science and Technology (NCSRST) is a State-Owned Enterprise established in terms Section 4 of the Research, Science and Technology Act, 2004 (Act no. 23 of 2004) with a mandate of coordinating, developing, and facilitating the promotion of Research, Science, Technology, and Innovation (RSTI) in Namibia.

As pat of its strategic partnership initiative, the NCRST in Collaboration with the Ministry of Higher Education, Technology & Innovation (MHETI) and United Nations Educational, Scientific and Cultural Organization (UNESCO) has embarked on the process of collecting data to form part of the Assessment status-quo report. The report is geared to provide a holistic scorecard on Science, Technology and Innovation (STI) landscape in Namibia.

This questionnaire is intended to gather national data from an array of Offices, Ministries, Agencies (OMAs), and Research, Development and Innovation (RD&I) stakeholders (including public and private institutions), in a bid to evaluate their contributions and linkages in the National Systems of Innovation (NSI) and how such networks could be strengthened towards delivering the National STI policy goals.

Abridged Guidelines

1. ***The NCRST greatly value your participation and hope that you will find this questionnaire interesting to complete.***
2. ***Your answers are extremely important, please answer all questions neatly and legibly.***
3. ***Kindly note that your participation is voluntary, and all views expressed in this assessment too will be treated with the highest level of confidentiality.***
4. ***Please use extra sheets for answering any question, if needed and indicate the specific section and question in the additional sheet(s) accordingly.***
5. ***Wherever a copy of any additional document is required in the Questionnaire, kindly ensure that the same copy accompanies the forwarded Questionnaire.***

Should you require additional information about the questionnaire , kindly contact the designated NCRST liason officer below:

Name	Tel	Email
Dr. Edgar Mowa	+264 (061) 431 700	emowa@ncrst.na

SECTION A: ORGANIZATIONAL AND DEMOGRAPHIC INFORMATION

A.1 Full Name respondent			
A.2 Gender			
A.3 Age			
A.4 No. of years employed at current institution/ Office/ Ministry/ Agency			
A.5 Designation/ Position/ Title			
A.6 Name of Institution /Office/ Ministry/ Agency			
A.7 Total number of employees		Total number of Researchers	
		Total number of Innovators	

A.8 The number of years the organization has been in existance *(please tick)*	≤ 1 year ☐	2 - 5 years ☐	
	6 - 10 years ☐	> 10 years ☐	

A.9 Contact details of the Institution /Office /Ministry/ Agency	E-mail address	
	Telephone no	
	Mobile no:	
	Postal address	
	Residential address	
	Official Website (URL)	
	Social Medial handle	

A. 10 Indicate the region where the responding institution is located.

Erongo	☐	Omusati	☐
Hardap	☐	Oshana	☐
//Kharas	☐	Otjozondjupa	☐
Ohangwena	☐	Omaheke	☐
Khomas	☐	Oshikoto	☐
Kavango East	☐	Kunene	☐
Kavango West	☐	Zambezi	☐

A.11 Which of the following categories best describes your organization? *(Choose one)*.

Government/Public Entity	☐
Private Entity	☐
National Non-Governmental Research Organization /Institution	☐
International Non-Governmental Research Organization /Institution	☐
University/ Institute of Higher Learning/ Vocational training institute	☐

Others *(specify)*

A.12 Which of the category below best describes your institutional primary focus / thematic area? *(Select all that apply)*

Health	☐	*Environment, Forestry & Tourism*	☐
Biotechnology	☐	*Information & Communication Technology*	☐
Logistics	☐	*Manufacturing Technologies*	☐
Water	☐	*Social Science & Humanities*	☐
Indigenous Knowledge	☐	*Mining & Energy*	☐
Agriculture & Fisheries	☐	*Space Science*	☐

Others: *(please specify)*

_____

SECTION B: AWARENESS OF STI INITIATIVES, POLICY, AND LEGISLATIVE FRAMEWORKS

B.1 Rate your awareness of the following STI policies, regulations and initiatives

	Not at all aware	Slightly aware	Somewhat aware	Moderately aware	Extremely aware
Research, Science and Technology (RST) ACT 23 of 2004					
Biosafety ACT of 2006					
RST Regulations of 2011					
Biosafety Regulations of 2016					
National Policy on Science, Technology and Innovation (STI) (1999/ 2021)					
National Programme on Research Science Technology and Innovation					
National Science Fair					
National Science Week					
UN Sustainable Development Goalt (SDGs)					
Recommendation on Science and Scientific Researchers (RSSR) of 2017					
Science, Technology and Innovation Strategy of Africa (STISA) 2024					
Southern Africa Development Community (SADC) Protocol on Science Technology and Innovation (STI) 2008					

SECTION C: STATUS OF SCIENCE, TECHNOLOGY AND INNOVATION (STI) AND COMMUNITY ENGAGEMENT IN NAMIBIA

C.1 Rate the extent of engagement between your organisation and the community in the following STI domains:

Engagements	Never	Rarely	Sometimes	Often	Always
Identification of knowledge needs					
Conduct of scientific research					
Utilization of STI for socio-economic advancement					
Providing access to enabling STI infrastructure and services					
Incentive Schemes for SME					
Stakeholder engagements					
Technology Transfer / Adoption					
Redressing gender imbalances					
Promotion of collaborative linkages/synergies					
Consultations on development of enabling institutional policy frameworks					

C.2 To what extend are that the following integrated into your organisation's policies/ research/ innovation development? *(Tick all that apply):*

Measure	Not at all	Rarely	Sometimes	Always	Unsure
Identification of knowledge needs					
Conduct of scientific research					
Utilization of STI for socio-economic advancement					
Providing access to enabling STI infrastructure and services					
Incentive Schemes for SME					
Stakeholder engagements					
Technology Transfer / Adoption					
Redressing gender imbalances					
Promotion of collaborative linkages/synergies					
Consultations on development of enabling institutional policy frameworks					

C.3 What measures were taken by your organisation to use STI to contribute to the Knowledge in Society (Please tick all that apply):

Capacity building engagements (science fairs, publick lectures, workshops, training)	
Funded RSTI activities (programmes and projects, innovations)	
Research and Publications	
STI tangible outputs (i.e., products and services, prototypes, tech-transfer, proof of concept)	
Others (Please specify):	

C.4 What measures were taken by your institution to promote a Scientific Culture in society? (Please tick all that apply):

Science promotion initiatives (science festivals /fairs, road shoves, public lectures, workshops, training; exhibitions)	
Funded RSTI activities (programmes and projects, innovations)	
Technology transfer and adaption platforms	
Research and Publications	
Promote STI outputs (i.e., products & services, prototypes, tech-transfer, proof of concept)	
Others	
(Please specify): _____	

C.5 What obstacles did you encounter as an organization whilst promoting STI in the community?

C.6 In your view, does your organization take steps to make the results of its work publicly accessible? *(Please tick)*

Yes	No	Unsure

C.6 1 If yes in C.6, what steps have your organization taken to make the results of its work publicly accessible in the last 12 months?

C.7 In your view , does your research organisation take steps to ensure its work addresses societal needs? *(Please tick)*

Yes	No	Unsure

C.7.1 If yes in C.7, what steps, are you aware of that your organisation has taken [in the last 12 months] to ensure its work address societal needs?

SECTION D: INSTITUTIONAL ENGAGEMENT OF SOCIETY IN STI

D.1 Rate the level of exposure of research staff in public/ societal engagement (including through media engagement) in relation to the following:

Research component	Very low (<20%)	Low (20-39%)	Medium (40-59%)	High (60-79%)	Very High (≥ 80%)
Co-designing research agendas / research questions,					
Participation in data collection,					
Participation in data analysis,					
Communication of results,					
Getting results into practical use					
Professional development training in public / societal engagement					

SECTION E: THE ROLE OF SCIENCE IN NATIONAL POLICY AND DECISION MAKING, INTERNATIONAL COOPERATION AND DEVELOPMENT.

E.1 Indicate how often your institution takes measures to inform national policy and advance international cooperation. *(Please tick all that apply)*

Measure	Never	Rarely	Sometimes	Often	Always
Using scientific knowledge to inform national policy and decision-making in an inclusive manner					
Using scientific knowledge to inform national policy and decision-making in an accountable manner					
Use scientific knowledge to advance international cooperation					
Use scientific knowledge to advance international development					
Use scientific knowledge to advise Government					

SECTION F: PROMOTING KNOWLEDGE SHARING IN STI OUTPUTS

F.1 Rate your understanding of the concept of Open access and its application in general. *(Please tick one)*

Excellent	Very Good	Fair	Poor	Very Poor

F.2 Indicate how often your institution takes measures towards promotion of the following initiatives *(Please rate all initiatives that apply)*

Initiatives	Never	Rarely	Sometimes	Often	Always
Emphasis public role of science					
Encourage sharing of scientific data					
Encourage sharing of scientific research methods					
Encourage sharing of scientific research results					
Encourage sharing of scientific knowledge derrived from research					

F.3 What % of research staff at your organisation have experience publishing their data on an open access database? (Tick one)

None (0)	Very low	Low (20-39%)	Medium (40-59%)	High (60-79%)	Very High (≥ 80%)

F.4 What % of research staff have had at least one day of professional development training on preparing and publishing open data? (Tick one)

None (0)	Very low	Low (20-39%)	Medium (40-59%)	High (60-79%)	Very High (≥ 80%)

SECTION G: PROMOTION OF INCLUSIVE AND NON-DISCRIMINATORY WORK CONDITIONS AND ACCESS TO EDUCTION AND EMPLOYMENT IN SCIENCE.

G.1 Indicate how often your institution takes measures to emphasis and encourage inclusiveness in the workplace *(Please rate all measures that apply)*

Measure	Never	Rarely	Sometimes	Often	Always
Assure equal opportunity for initial education and training required for scientific research careers					
Assure equal access to employment in scientific researchers					
Equitable conditions of work for all scientific researchers					
Encouragement of participation of women and other under-presented groups to remediate inequalities					
Encourage sharing of scientific knowledge derived from research					

G.2 What measures were taken by your organization to address gender imbalances, development of Youth, Previously Disadvantaged, and People with Disability?

G.3 What measures were taken by your organization to promote equal opportunities for employement in STI?

SECTION H: PROMOTION OF HUMAN RIGHTS OF RESEARCHERS.

H.1 Indicate how often your organization takes measures to align science with human rights
(Please rate all measures that apply)

Measures	Never	Rarely	Sometimes	Often	Always
Responsible scientific conduct respecting human rights of scientific researchers					
Responsible scientific conduct respecting human rights of human research subjects					
Promote human right to share scientific advancement and its benefits					
Promote open access to research results					
Promote open access to the knowledge derived from research results					

H.2 What obstacles did you encounter as an organization whilst promoting Human Rights Standard?

SECTION 1: BALANCING FREEDOMS, RIGHTS AND RESPONSIBILITIES OF RESEARCHERS.

1.1 Indicate how often your organization takes measures that balances the freedoms, rights and responsibilities of research to ensure: *(Please rate all measures that apply)*

Measures	Never	Rarely	Sometimes	Often	Always
Respect for public accountability					
Execution of scientific work in a humanely responsible manner					
Execution of scientific work in a scientifically responsible manner					
Execution of scientific work in an ecologically responsible manner					
Intellectual and academic freedom appropriate to research's task					

SECTION J: RESEARCH INTEGRITY, RESEARCH ETHICS, AND ETHICS OF STI

1.1 Indicate how often your organization takes measures of scientific integrity *(Please tick all that apply).*

Measures	Never	Rarely	Sometimes	Often	Always
Establish means to address ethics of science					
Establish means to address research integrity					
Establish and support science ethics policies					
Establish and support science ethics committees					
Stimulate researchers' professional ethics					
Stimulate researchers' intellectual integrity					
Stimulate researchers' sensitivity to conflict of interest					

J.2 Were necessary measures taken by your organization to ensure?

Measures	Yes	No	Unsure
Protection of intellectual property			
Research integrity			
Science ethics			
Professional ethics			

J.3 If yes in J.2., please explain and provide evidence

SECTION K: IMPORTANCE OF HUMAN CAPITAL FOR A SOUND AND RESPONSIBLE SCIENCE SYSTEM.

K.1 Were measures taken by your institution to develop policies to address:

Measures	Yes	No	Unsure
Scientific researchers' career prospects			
Scientific researchers' work conditions			
Life-long learning opportunities			
Mobility and international travel			
Scientific researchers' training			
Scientific researchers' employment			
Career development prospects			
The protection of health and social security			
Inclusive and transparent performance appraisal systems			

K.2 If yeas in K.1., please expand on the measures taken and provide evidence

K.3 What obstacles did you encounter as an institution whilst promoting Human Capital for Research?

Financial Constrains/lack of dedicated budget

Lack of training, capacity and/ or expertise

Inadequate legislation

Lack of knowledge or awareness

Lack of Infrastructure

Others - *(Please specify below)*

_____

_____

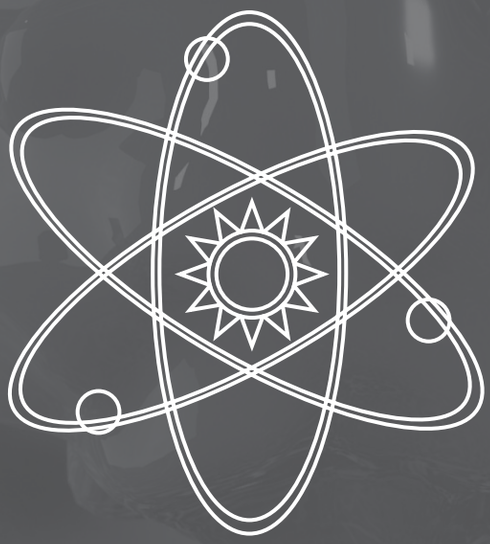
_____

SECTION L: SUSTAINABLE DEVELOPMENT GOALS (SDGs)

L.1 In the last 12 months were there any measures in place to help your organisation archieve SDGs?		Yes	No
If yes, please describe:			
L.2 Were there any obstacles observed in your organisation towards achieving SDGs?			
If yes, please describe:			

THE END

Thank you for availing your time to answer the questionnaire.



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