

# Welcome



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*Botswana open repositories role in SDGs  
research-based knowledge sharing process: a  
bibliometric analysis*

*Sub Theme: Sustainable development: Linking open  
repositories content to the UNESCO Sustainable  
Development Goals*

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# Presentation Outlines

- Introduction
- Methodology
- Research findings and Discussion
- Conclusion

# Introduction



- **Sustainable Development Goals**
- The United Nations (UN) sustainable development goals (SDGs), adopted in September 2015, are a global socioeconomic agenda that calls for collective action to achieve peace, prosperity, and well-being by 2030. The 17 goals and 169 targets of the SDGs were developed to succeed the eight Millennium Development Goals (MDGs), which ended in 2015  
UNESCO (2021)

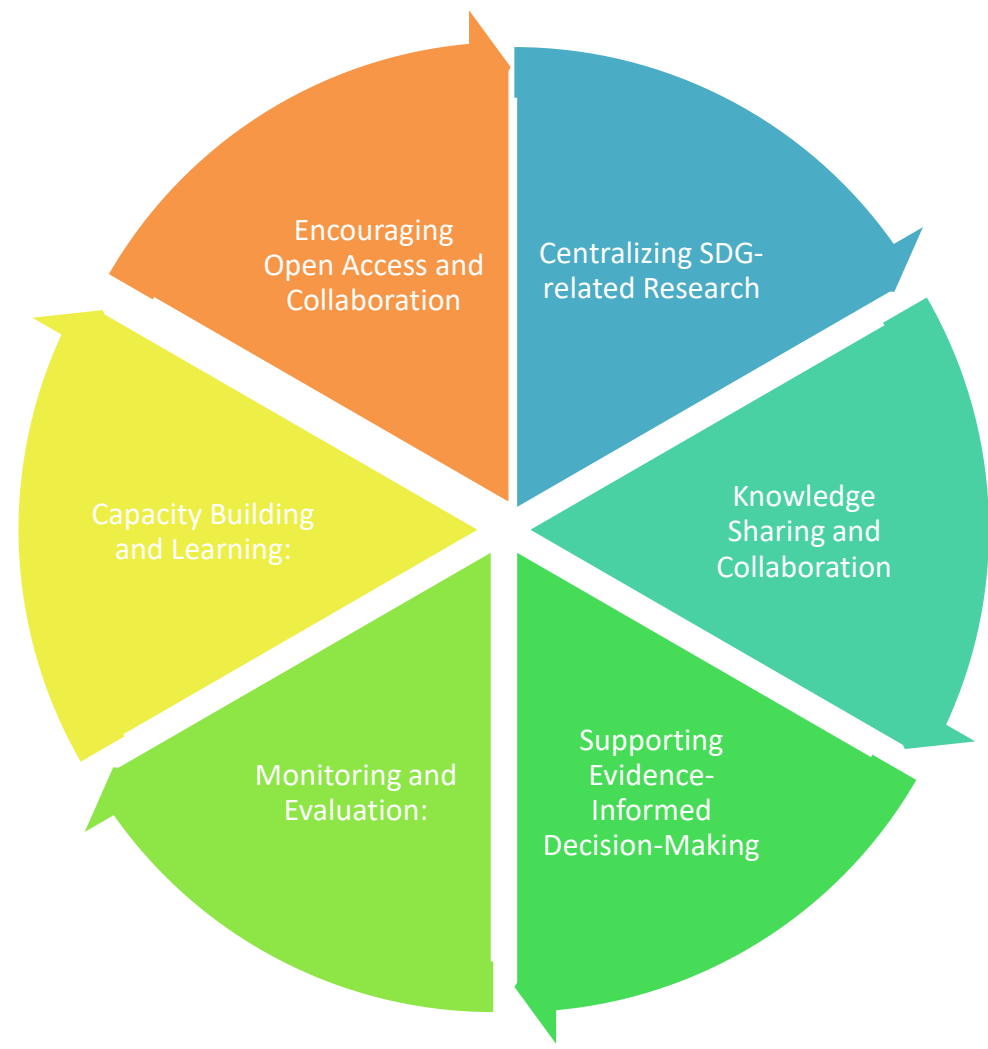
# Introduction

## SDGs



- Open science has the potential to make the scientific process more transparent, inclusive, and democratic, and it is increasingly recognized as a critical accelerator for the achievement of the SDGs ([Geneva Call, 2020](#)).

# Open Repositories



# Aim and Objectives of the study

Aim: Assess the contribution of Botswana universities' repositories in promoting SDG research practices. The following sub-objectives support the study

To conduct a bibliometric analysis by reviewing research publications on SDG from 2015 to 2023 from four Botswana universities' institutional repository collections compared with SDGs –related articles on WoS

To provide information on SDGs -related research articles from four Botswana universities' institutional repositories published from 2015 to 2023

To reflect the impact of IRs on SDGs research visibility and productivity

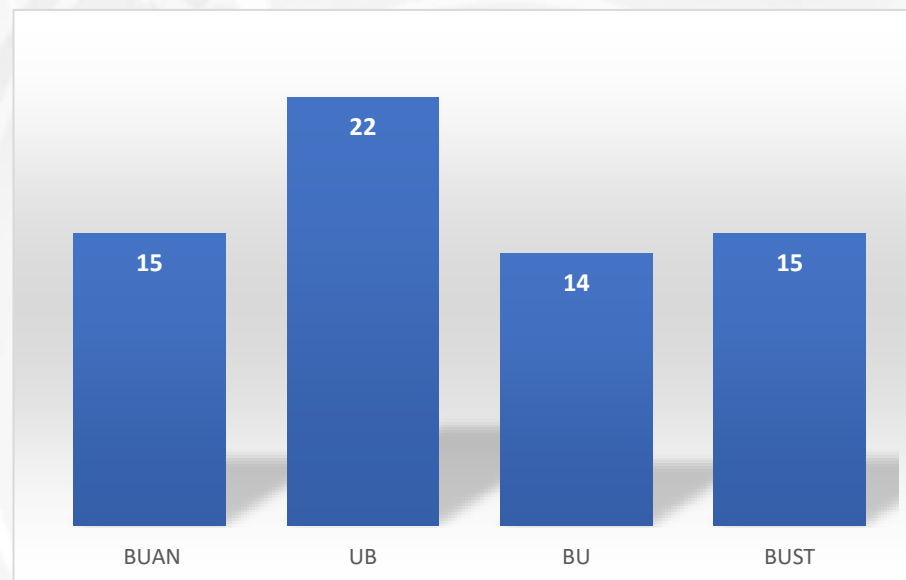
# Materials and Methods

- The bibliometric analysis is conducted in three major steps.
- The information was retrieved from four universities' institutional repositories (University of Botswana, Botho University(UB) , Botswana International University of Science and Technology (BUIST), Botswana University Agriculture and Natural Resources ( BUAN), these are IR registered on the Directory of Open Access Repositories and Registry of Open Access Repositories.
- The information was retrieved by searching ("SUSTAINABLE DEVELOPMENT GOAL\*" or "SDG\*") in the field "TITLE" or Abstract, from IRS
- The information was retrieved from selected IR
- WoS searching ("SUSTAINABLE DEVELOPMENT GOAL\*" or "SDG\*") in the field "TITLE" or Abstract, and the search result filtered by Affiliated Universities

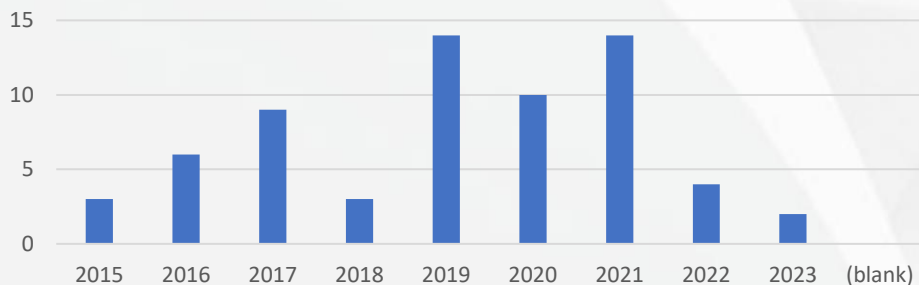


# Findings

University Name	The registered date on OpenDOAR	Number of publications	software used
BUIST	Jun-2020	474	Dspace
Botho University	Feb-2016	185	Dspace
University of Botswana	2009	2127	Dspace
BUAN	Feb-2023	639	Dspace

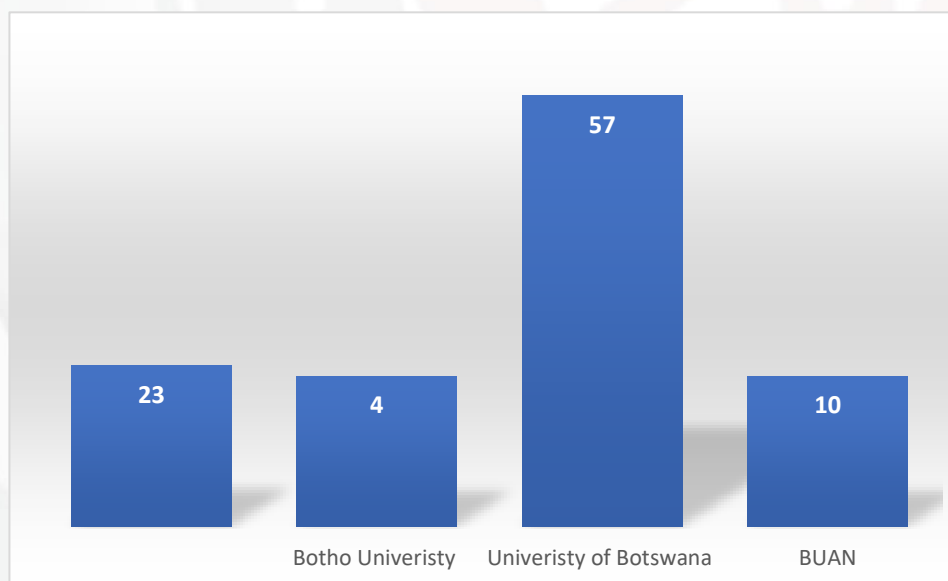


Date of Publication

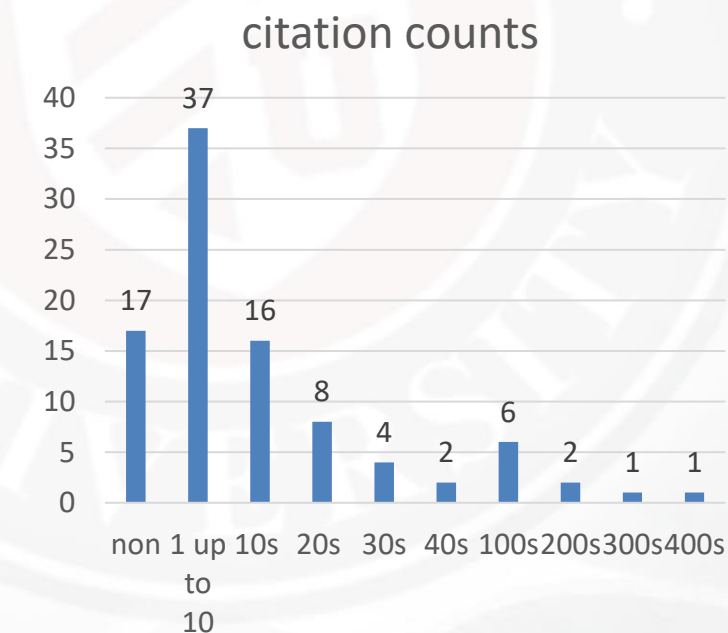
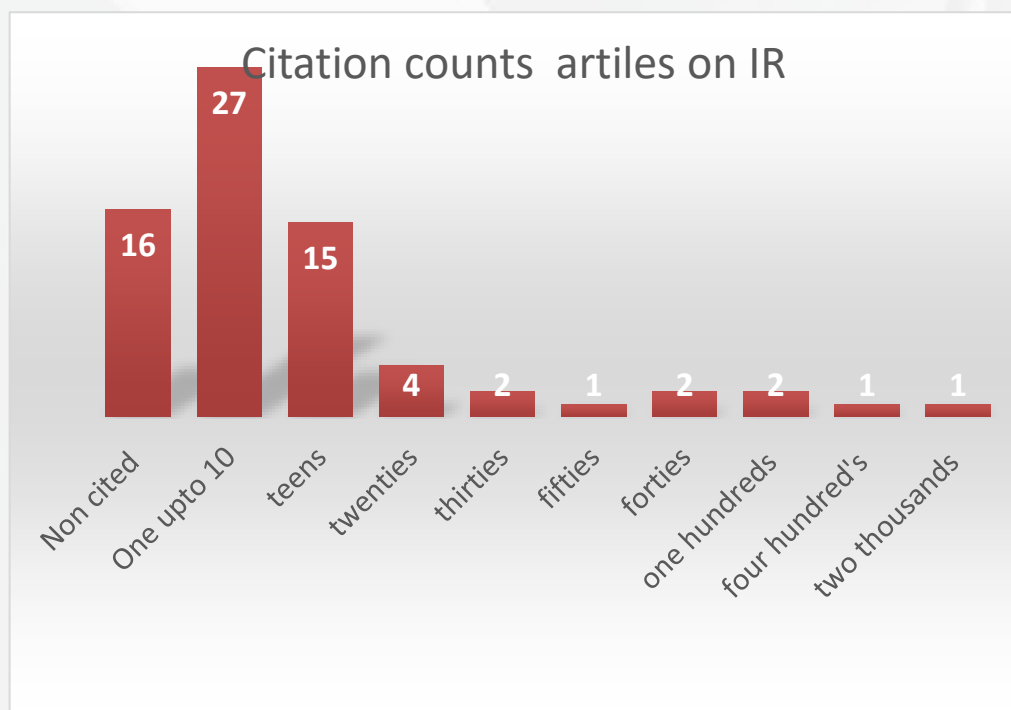


# Findings

- A total of 319 research articles are available on the Web of Science. Out of these, 98 of them were published by researchers from the four targeted universities.
- The research also identified that out of 171 open-access SDGs publications, 94 were published by affiliated researchers from four Botswana universities.
- All 94 research OA

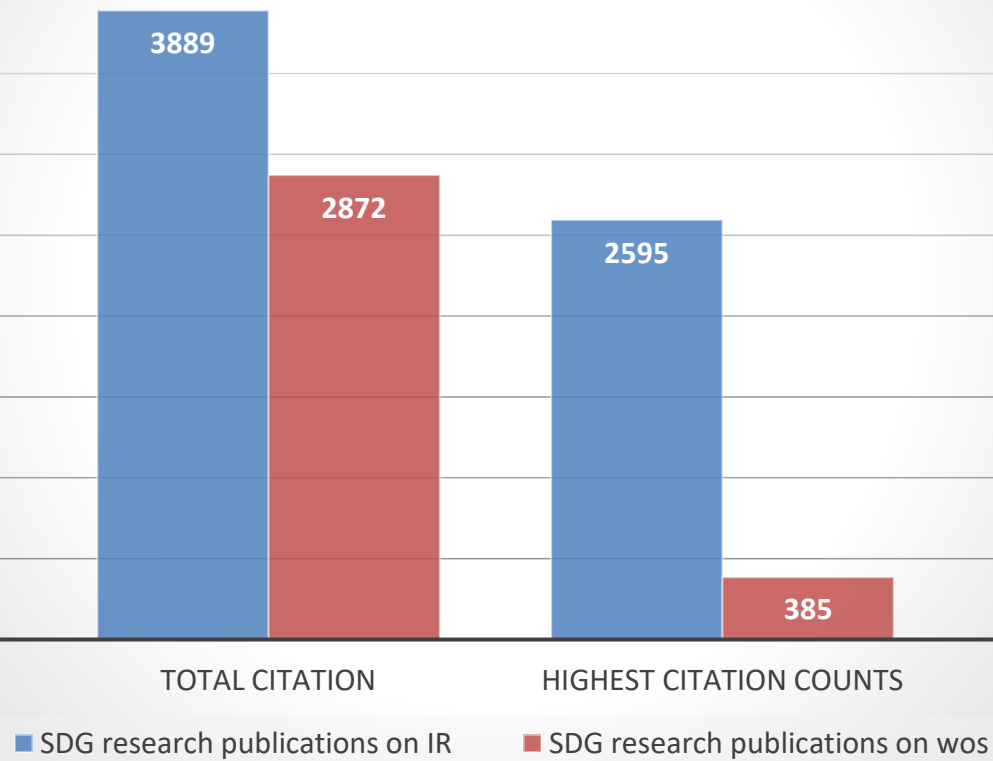


- Institutional repositories often promote open access to research outputs, enabling broader audiences to benefit from the knowledge generated.



# Findings

Chart Title





# Findings

Title	Date of publication	Journal title	citation	Universities
Global Burden of Cardiovascular Diseases and Risk Factors, 1990–2019: update from the GBD 2019 Study	2019	J Am Coll Cardiol	2595	WEB
Measuring universal health coverage based on an Index of adequate coverage of health services in 204 Countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019	2019	Lancet	406	UB
environmental impact of food packaging materials: a review of contemporary development from conventional plastics to polylactic acid based materials	2020	Materials	193	BUIST
Review of ongoing activities and challenges to improve the care of patients with Type 2 Diabetes across Africa and the implications for the future	2020	Front Pharmacol.	103	UB
Potential impacts of biofuel development on food security in Botswana: A contribution to energy policy	2012	Energy Policy	59	UB
The adequacy of antenatal care services among slum residents In Addis Ababa, Ethiopia		BMC Pregnancy Childbirth	53	UB
Attitudes of local communities towards forest conservation in Botswana: a case study of Chobe Forest Reserve	2016	The International Forestry Review	43	BUAN
Virtual healthcare services and digital health technologies deployed during coronavirus disease 2019 (COVID-19) pandemic in South Africa: a systematic review	2022	<a href="#">Global Health Journal</a>	43	BU

# Findings

Title	Date	journal title	citation	Affiliation
Global, regional, and national burden of hepatitis B, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019		<i>The Lancet Gastroenterology &amp; Hepatology</i>	385	
Cancer Incidence, Mortality, Years of Life Lost, Years Lived With Disability, and Disability-Adjusted Life Years for 29 Cancer Groups From 2010 to 2019 A Systematic Analysis for the Global Burden of Disease Study 2019		<i>AMA oncology</i>	238	
Global monitoring of antimicrobial resistance based on metagenomics analyses of urban sewage		<i>Nature communications</i>	237	
Global, regional, and national incidence, prevalence, and mortality of HIV, 1980-2017, and forecasts to 2030, for 195 countries and territories: a systematic analysis for the Global Burden of Diseases, Injuries, and Risk Factors Study 2017	2019	<i>JAMA oncology</i>	196	
Measuring universal health coverage based on an index of effective coverage of health services in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019	2019	<i>The Lancet</i>	124	
Down to Earth: Contextualizing the Anthropocene	2016	<a href="#">Global Environmental Change</a>	107	
Mapping 123 million neonatal, infant and child deaths between 2000 and 2017	2019	<i>Nature</i>	103	
Reorienting land degradation towards sustainable land management: Linking sustainable livelihoods with ecosystem services in rangeland systems	2015	<a href="#">Journal of Environmental Management</a>	96	
The global problem of childhood diarrhoeal diseases: emerging strategies in prevention and management	2018	<i>Ther Adv Infect Dis.</i>	89	UB
Levers and leverage points for pathways to sustainability	2020	<a href="#">Special Feature: Informing decision-making with indigenous and local knowledge and science</a>	47	UB

# Summary

- In summary,  
Institutional repositories play a vital role in consolidating, disseminating, and preserving knowledge related to the Sustainable Development Goals.
- This analysis result indicate that IRs appear to have a positive impact on citation count,
- IR managers has to used the Web of Science and other databases to discover SDG-related researches published by their researchers and then deposited them in the IR.

# Reference

- **References**

- [Web of Science<sup>TM</sup>](#)
- Botswana International University of Science and Technology
- Repository (BIUSTRE) <http://repository.biust.ac.bw/>
- BUAN ResearchHub <https://researchhub.buan.ac.bw/>
- [Botho University Institutional Repository](#)
- [University of Botswana Research, Innovation and Scholarship Archive](#)

# Acknowledgement

I am honoured to have been selected as a fellow of the OR23 Conference. I want to thank OR 23 conference organizing committee and their sponsors for their generous support. Attending this conference is very important to me, as it provides a valuable opportunity for knowledge exchange, networking, and professional development.





Thank you !  
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Ke a leboga  
Dankie