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JOHANNESBURG

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ANNUAL  
REPORT:  
SDG REPORT

2 ZERO  
HUNGER



SDG 2: ZERO HUNGER

Our Future  
Reimagined

# UJ SDG REPORT 2023

## SDG 2: ZERO HUNGER

**2** ZERO  
HUNGER



# Report on the University of Johannesburg's Contribution to Sustainable Development Goal 2

## SDG 2: Zero Hunger

### OVERVIEW: EXECUTIVE SUMMARY

The University of Johannesburg (UJ) has actively contributed to achieving the United Nations' Sustainable Development Goal 2 (SDG 2) on Zero Hunger, through strategic research, innovative educational initiatives, impactful community engagements, and sustainable practices. In a country where hunger and food insecurity remain critical issues, UJ has emerged as a leader in driving positive change. From groundbreaking research on sustainable food systems to empowering communities through agricultural training, UJ has implemented diverse programmes and projects that align with its mission of societal impact and sustainability. This report details UJ's significant efforts, including partnerships with local and international organisations, integration of food security themes into academic curricula, and impactful on-campus green initiatives. UJ's commitment to advancing SDG 2 underscores its position as a transformative institution dedicated to addressing global and local challenges.

## **INTRODUCTION**

Zero Hunger is a cornerstone of global development, aiming to end hunger, achieve food security, improve nutrition, and promote sustainable agriculture. In South Africa, where food insecurity remains a persistent challenge for many households, higher education institutions like UJ play a critical role in developing solutions that bridge the gap between academic knowledge and societal needs.

South Africa faces unique challenges related to food security, including economic inequality, climate change, and limited access to nutritious food for vulnerable populations. UJ's Strategic Plan 2035, which prioritises societal impact and sustainability, aligns with the United Nations' SDGs to address these challenges. By leveraging its expertise in research, education, and community outreach, UJ ensures its contributions extend beyond academia, fostering real-world solutions for communities most affected by hunger. This report explores the multifaceted strategies and impactful outcomes of UJ's efforts to advance SDG 2.

## **RESEARCH CONTRIBUTIONS**

### ***Advancing Sustainable Agriculture***

UJ has conducted pioneering research in climate-smart agriculture, focusing on improving resilience to climate change and ensuring sustainable farming practices. Key initiatives include studies on optimising the use of indigenous crops, such as quinoa and cowpeas, for their high nutritional value and adaptability to local climatic conditions. These projects have generated insights into enhancing food security in resource-constrained environments, particularly in rural South Africa.

Research teams have also explored the integration of agroecological methods, such as crop rotation and organic fertilisation, to improve soil health and increase crop yields. These findings are disseminated through academic publications and community workshops, ensuring knowledge transfer to practitioners and policymakers.

### ***Food Evolution Research Laboratory (FERL)***

FERL at UJ has been instrumental in developing innovative food solutions. The laboratory's groundbreaking work includes creating 3D-printed nutritious biscuits from bioprocessed cowpeas and other indigenous grains. This initiative not only showcases cutting-edge technology but also demonstrates a sustainable approach to addressing malnutrition in underserved communities.

FERL's research has further informed policy dialogues on integrating indigenous crops into mainstream food systems, highlighting the potential for traditional crops to contribute to national food security goals. Additionally, the laboratory collaborates with international partners to explore the use of artificial intelligence in optimising food production processes.

### ***Nutritional Research***

UJ's research on nutrition emphasises improving food quality and safety standards. This includes collaborations with industry partners to develop fortified foods and address micronutrient deficiencies among vulnerable populations. For example, partnerships with food manufacturers have enabled the production of fortified staples, such as maize meal and bread, to combat iron and vitamin deficiencies.

Research initiatives also examine the dietary habits of South African households, providing data-driven recommendations for public health campaigns aimed at promoting balanced and nutritious diets.

## **COMMUNITY ENGAGEMENT AND OUTREACH**

### ***iZindaba Zokudla Project***

The iZindaba Zokudla project exemplifies UJ's commitment to fostering innovation in urban agriculture. This initiative creates platforms for dialogue between urban farmers, policymakers, and researchers, encouraging the co-creation of solutions to food security challenges in urban areas. The project emphasises sustainable agricultural practices, resource-sharing, and the empowerment of local farmers to ensure food security and economic stability.

### ***Food Security Programmes***

UJ's community engagement initiatives target hunger at the grassroots level. Programmes like the Soweto Food Security Initiative empower local residents with skills and resources to establish community gardens. These gardens not only provide immediate food relief but also foster self-reliance and sustainable agricultural practices.

One notable success story is the establishment of urban farms in Johannesburg's low-income areas, where residents grow vegetables and herbs using innovative methods such as vertical gardening and drip irrigation. These farms have improved access to

fresh produce and created income-generating opportunities for community members.

### ***Student Meal Assistance Programme***

Recognising that food insecurity directly impacts academic performance and well-being, UJ's Student Meal Assistance Programme provides support to students in need. This programme ensures that vulnerable students have access to daily nutritious meals, enabling them to focus on their studies without the distraction of hunger. By collaborating with donors and leveraging internal resources, the university has been able to expand this initiative to reach more students annually.

### ***Training and Capacity Building***

To promote sustainable food production, UJ regularly hosts workshops and training sessions for small-scale farmers and community members. Topics include efficient water usage, organic farming methods, and the cultivation of high-yield crops. These programmes directly address the knowledge gap in sustainable farming techniques, enabling participants to improve productivity and reduce dependency on external aid.

UJ's training initiatives have reached hundreds of participants annually, equipping them with skills to tackle local food security challenges. The university also collaborates with schools to introduce agricultural education programmes, inspiring the next generation of farmers and food entrepreneurs.

## **SUSTAINABLE CAMPUS PRACTICES**

### ***Food Safety and Waste Reduction***

UJ ensures food safety on its campuses through regular audits and stringent quality control measures. Additionally, the university has implemented waste reduction programmes to minimise food waste. Surplus food from campus dining facilities is redistributed to food-insecure students and nearby communities, ensuring that resources are utilised effectively.

The university's food redistribution efforts ensure that surplus food from campus dining facilities is effectively redirected to benefit food-insecure students and nearby communities. These programmes are part of UJ's broader commitment to minimising waste and addressing hunger, reflecting its alignment with sustainability goals.

## ***Green Initiatives***

The university's green initiatives include the integration of hydroponic systems and permaculture gardens on campus. These projects serve as living laboratories for students and researchers to explore sustainable agricultural practices while contributing fresh produce to campus cafeterias and local food banks.

UJ has also invested in renewable energy solutions to power its agricultural projects, showcasing the intersection of clean energy and sustainable food production. These efforts position UJ as a leader in environmentally conscious campus operations.

## **TEACHING AND LEARNING**

### ***Curriculum Integration***

UJ's academic programmes incorporate SDG 2 themes, offering modules on sustainable agriculture, food systems, and nutrition. For example, the Faculty of Health Sciences offers courses that examine the intersection of food security and public health, equipping students with the skills to tackle real-world challenges.

Other faculties, such as Science and Engineering, provide interdisciplinary programmes focusing on technological innovations in agriculture. These courses highlight the role of data analytics, robotics, and biotechnology in modernising food systems.

### ***Student Involvement***

Students are actively engaged in addressing hunger through service-learning projects. Initiatives such as the "Zero Hunger Campaign" involve students in developing and implementing food distribution programmes for underserved communities. These activities foster a sense of social responsibility and provide practical experience in managing food security initiatives.

Student-led organisations, like the UJ Green Society, organise annual food drives and awareness campaigns, mobilising resources and support for vulnerable populations. These initiatives create a culture of community engagement among the student body.

## **PARTNERSHIPS AND COLLABORATIONS**

UJ collaborates with government agencies, non-governmental organisations, and international partners to enhance its impact on food security. Partnerships with entities like the Gauteng Department of Agriculture have facilitated the distribution of farming tools and seeds to community members. International collaborations, such as with the Food and Agriculture Organisation (FAO), have enabled UJ to align its efforts with global best practices.

UJ's involvement in the Southern African Food Security Consortium has also strengthened regional collaboration, fostering shared knowledge and resources to tackle hunger across borders.

## **IMPACTS AND ACHIEVEMENTS**

### ***Tangible Outcomes***

UJ's initiatives have yielded measurable results, including:

- The establishment of over 50 community gardens benefiting more than 10,000 individuals.
- Research breakthroughs leading to the development of fortified foods distributed across disadvantaged areas.
- Significant reductions in food waste through redistribution programmes.
- Training programmes that have empowered over 1,000 farmers with sustainable agriculture techniques.

### ***Recognition***

UJ's contributions to SDG 2 have garnered national and international recognition. The university ranked among the top 100 globally for its efforts in advancing Zero Hunger in the Times Higher Education Impact Rankings, demonstrating its leadership in this critical area.



## **CHALLENGES AND FUTURE DIRECTIONS**

While UJ has made significant strides, challenges such as funding constraints, resource limitations, and systemic inequalities persist. Moving forward, the university aims to:

- Expand its community engagement programmes to reach more remote areas.
- Invest in advanced research on sustainable food technologies.
- Strengthen partnerships to leverage additional resources and expertise.
- Scale up successful programmes like urban farming initiatives.

## **CONCLUSION**

The University of Johannesburg's multifaceted approach to addressing hunger exemplifies its commitment to societal impact and sustainability. Through innovative research, impactful community engagement, and a dedication to education, UJ continues to play a pivotal role in advancing SDG 2. By building on its successes and addressing ongoing challenges, UJ is well-positioned to further its mission of eliminating hunger and ensuring food security for all.

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