



UN 
environment
programme

50 
1972-2022



THE STATE OF FOOD WASTE IN WEST ASIA



© 2021 United Nations Environment Programme

ISBN No: 978-92-807-3868-1

Job No: ROW/2366/BA

This publication may be reproduced in whole or in part and in any form for educational or non-profit services without special permission from the copyright holder, provided acknowledgement of the source is made. United Nations Environment Programme would appreciate receiving a copy of any publication that uses this publication as a source.

No use of this publication may be made for resale or any other commercial purpose whatsoever without prior permission in writing from the United Nations Environment Programme. Applications for such permission, with a statement of the purpose and extent of the reproduction, should be addressed to the Director, Communication Division, United Nations Environment Programme, P. O. Box 30552, Nairobi 00100, Kenya.

Disclaimers

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory or city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Some illustrations or graphics appearing in this publication may have been adapted from content published by third parties. This may have been done to illustrate and communicate the authors' own interpretations of the key messages emerging from illustrations or graphics produced by third parties. In such cases, material in this publication do not imply the expression of any opinion whatsoever on the part of United Nations Environment Programme concerning the source materials used as a basis for such graphics or illustrations.

Mention of a commercial company or product in this document does not imply endorsement by the United Nations Environment Programme or the authors.

The use of information from this document for publicity or advertising is not permitted. Trademark names and symbols are used in an editorial fashion with no intention on infringement of trademark or copyright laws.

The views expressed in this publication are those of the authors and do not necessarily reflect the views of the United Nations Environment Programme.

We regret any errors or omissions that may have been unwittingly made.

Suggested citation

United Nations Environment Programme (2021). The State of Food Waste in West Asia.

ACKNOWLEDGEMENTS

The United Nations Environment Programme (UNEP) would like to thank the authors, reviewers and supporting organizations for their contribution to the preparation of this rapid scientific assessment report.

AUTHORS:

Dr. Mohamad G. Abiad, Associate Professor, Department of Nutrition and Food Sciences, Faculty of Agricultural and Food Sciences, American University of Beirut.

Dr. Hussein Hassan, Associate Chair, Natural Sciences Department, Associate Professor of Food Science and Technology, Academic Coordinator, Food Safety Program, Continuing Education, Lebanese American University.

UNEP PROJECT COORDINATOR AND CONTRIBUTING AUTHOR:

Tarek Alkhoury, Regional Coordinator, Resource Efficiency and Sustainable Consumption and Production, UNEP Regional Office for West Asia.

SPECIAL ACKNOWLEDGEMENTS

PEER REVIEWERS

Lara Geadah, National Officer of Project FEPS/CCNRSC, United Nations Economic and Social Commission for Western Asia.

Jennifer Smolak, Agribusiness and Value Chain Specialist, Food and Agriculture Organization of the United Nations, Regional Office for the Near East and North Africa.

David Svab, Programme Management Specialist, UN Women Regional Office for Arab States.

SPECIAL THANKS TO OUR UNEP COLLEAGUES, in particular to:

Clementine O'Connor, Programme Officer, Sustainable Food Systems, Energy and Climate Branch, Economy Division, UNEP, for her substantive contribution and valuable input to this report.

Abdul-Majeid Haddad (Deputy Regional Director, UNEP Regional Office for West Asia) for his valuable guidance and contribution.

Paolo Marengo (Resource Efficiency International Specialist, UNEP Regional Office for West Asia) for his valuable contribution and support to the project coordinator.

LANGUAGE EDITING

Lisa Mastny

GRAPHICS, DESIGN AND LAYOUT

Fabrice Belaire

FOREWORD:



We are happy to introduce *The State of Food Waste in West Asia*. This report is aligned with international efforts to meet the Sustainable Development Goal 12 (SDG 12), which seeks to “ensure sustainable consumption and production patterns.” Under this goal, the third target (Target 12.3) calls for halving per capita global food waste at the retail and consumer level, in addition to reducing food loss along the production and supply chains by 2030. Given the considerable amount of wasted food annually and its repercussions on food security, the environment, the economy, natural resources and livelihoods, our report sheds light on food waste in West Asia.

West Asia includes 12 countries with differences in income, industrialization and development levels. It is well documented that in developing or low-income countries, around two-thirds of the food produced is lost post-harvest and during processing, whereas in developed or medium- to high-income countries, a significant fraction of food waste is generated at the consumption level. This report considers the food waste issue at the household, food service, and retail levels, focusing on its ramifications for food security, given that the amount of food waste generated annually is enough to feed the 8 million undernourished people living in West Asia. Furthermore, the report summarizes the effects of the COVID-19 pandemic on food waste generation, as assessed in a cross-sectional study surveying perceptions of food waste generation, and provides recommendations to mitigate the pandemic’s effect in this regard.

This report on the state of food waste in West Asia lists the existing private and public interventions to mitigate food waste. It builds on the current efforts to set targets, propose national strategies and develop policies to deliver SDG 12.3. Our report presents new methods to deal with food waste treatment and a sustainable framework to support this.

The report on the state of food waste in West Asia is commissioned by the UN Environment Programme’s West Asia Office. We would like to thank all those who contributed to this report.

Sami Dimassi

Director and Regional Representative
West Asia Office

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	III	2. ADDRESSING THE FOOD WASTE CHALLENGE: PUBLIC AND PRIVATE INTERVENTIONS ON FOOD WASTE MITIGATION IN WEST ASIA.....	20
FOREWORD.....	IV	2.1 ROLE OF NON-GOVERNMENTAL ORGANIZATIONS AND FOOD BANKS.....	20
LIST OF TABLES.....	VI	2.2 ROLE OF GOVERNMENTS.....	24
LIST OF FIGURES.....	VI	2.3 CASE STUDIES FROM WEST ASIA.....	25
LIST OF ABBREVIATIONS.....	VI	3. SETTING TARGETS, DEVELOPING NATIONAL STRATEGIES AND IMPLEMENTING POLICIES TO DELIVER SDG 12.3 IN WEST ASIA ..	27
EXECUTIVE SUMMARY.....	VII	3.1 FOOD LOSS AND WASTE PROTOCOL AND STANDARD.....	28
1. FRAMING THE ISSUE OF FOOD WASTE IN WEST ASIA.....	10	3.2 FOOD WASTE INDEX TO MEASURE AND REPORT ON SDG 12.3.....	29
1.1 CHALLENGES FACING FOOD SYSTEMS.....	10	3.3 USING THE FOOD LOSS INDEX TO MEASURE AND REPORT ON SDG 12.3.....	30
1.2 INTRODUCTION TO FOOD WASTE.....	10	3.4 MEASURING FOOD WASTE IN WEST ASIA ..	30
1.3 FOOD WASTE IN WEST ASIA: AN OVERVIEW.....	14	3.5 INITIATIVES TO MITIGATE FOOD WASTE IN WEST ASIA.....	31
1.4 FOOD WASTE AT THE HOUSEHOLD LEVEL..	14	4. PERCEPTIONS OF FOOD WASTE GENERATION IN WEST ASIA: A CROSS-SECTIONAL STUDY.....	39
1.5 FOOD WASTE IN THE RETAIL AND HOTEL/ RESTAURANT/CATERING SECTORS.....	15	5. CONCLUSION AND RECOMMENDATIONS.....	46
1.6 IMPACT OF FOOD WASTE ON FOOD SECURITY IN THE REGION.....	16	REFERENCES.....	49
1.7 IMPACT OF FOOD WASTE ON THE ENVIRONMENT IN THE REGION.....	18		
1.8 EFFECT OF COVID-19 ON FOOD WASTE.....	19		

LIST OF TABLES

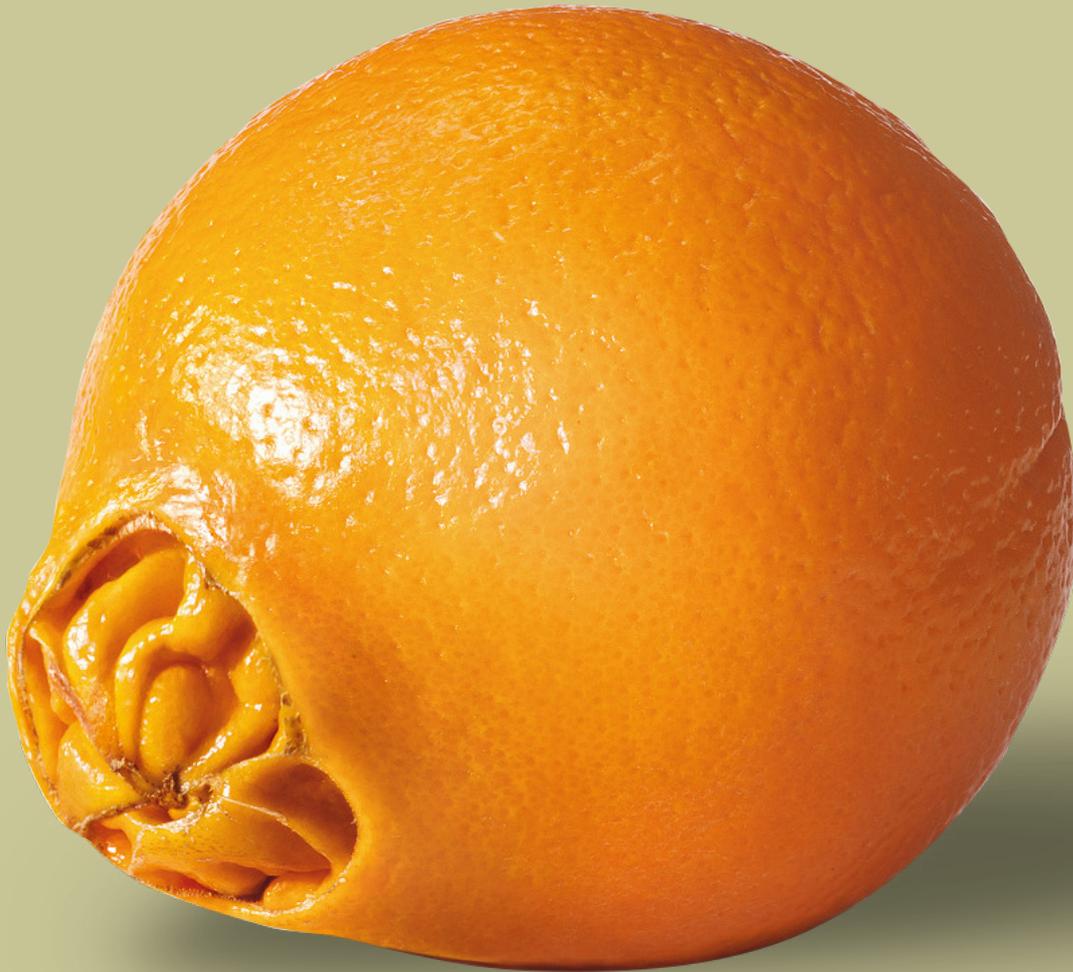
Table 1	List of existing efforts to mitigate food waste in West Asia	21
Table 2	Studies in West Asia reporting food estimates at the household level	31
Table 3	Examples of food loss and waste legislation in West Asia	25
Table 4	Characteristics of the surveyed participants ..	34

LIST OF FIGURES

Fig. 1	Food loss and food waste along the supply chain	11
Fig. 2	Addressing SDG 12.3 and its associated effects on multiple SDGs	13
Fig. 3	Share of edible food loss and waste (by weight) by commodity group in each step of the food supply chain for North Africa and West and Central Asia.....	17
Fig. 4	Food Loss and Food Waste Indices	28
Fig. 5	The reasons behind disposing of food items in a sample from West Asia.....	41
Fig. 6	The effect of COVID 19 on household food waste generation, in a sample from West Asia	42
Fig. 7	Recycling of food leftovers in West Asia, pre- and post-COVID-19	42
Fig. 8	Consumption of prepared foods in various households in West Asia	43
Fig. 9	Distribution of food waste categories in households, in a sample from West Asia.....	44
Fig. 10	Consumers' attitudes regarding various actions to mitigate food waste in West Asia...	44
Fig. 11	Consumers' attitudes towards wasteful food practices in West Asia	45

LIST OF ABBREVIATIONS

CO₂	Carbon dioxide
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
NDC	Nationally Determined Contribution
SDG	Sustainable Development Goal
UK	United Kingdom
UN	United Nations
UNEP	United Nations Environment Programme
WRAP	Waste and Resources Action Programme
VAT	Value-added tax



EXECUTIVE SUMMARY

The *State of Food Waste in West Asia* report was commissioned by the United Nations Environment Programme West Asia Office. It is timely coming after the publication of the Food Waste Index 2021 report (UNEP 2021) and dives into the challenges of the West Asia region. West Asia comprises 12 countries and territories: Kingdom of Bahrain, Republic of Iraq, The Hashemite Kingdom of Jordan, State of Kuwait, Republic of Lebanon, Sultanate of Oman, State of Palestine, State of Qatar, Kingdom of Saudi Arabia, Syrian Arab Republic, United Arab Emirates, Republic of Yemen.

The region has unique features related to its culture, religion and history that create substantial challenges related to food waste.

Food loss and food waste are challenging ethical issues in a world where more than 1 billion people continue to suffer from undernourishment. Food loss occurs during the production and distribution of the food supply chain, whereas food waste occurs at the retail and consumer levels. This report focuses on the current state of food waste in West Asia and on existing efforts, gaps and opportunities. It advocates sustainable food waste management for West Asia, an area that is historically known for producing high amounts of food waste, so it complements the region's efforts to end poverty, reduce hunger and improve human health.

Food waste reduces the availability of food intended for human consumption and has ramifications for the environment, natural resources and the economy. Around one-third of global food production is lost or

wasted every year along the supply chain from farm to fork. This loss or waste is enough to mitigate the global challenge of meeting the increased demand for food and feed more than 12 per cent of the global population, lifting them out of hunger and malnutrition.

In 2015, the United Nations General Assembly adopted a set of Sustainable Development Goals (SDGs), one of which is SDG 12, which aims to “ensure sustainable consumption and production patterns”. Under this goal, the third target (Target 12.3) calls for halving per capita global food waste at the retail and household levels and reducing food loss along the supply chains by 2030. In addition, it is important to tackle food waste in West Asia as a means to reduce pressure on landfills and minimize methane emissions that contribute to climate change.

Food waste in West Asia is alarming as it represents an estimated 34% of the total food served. The region is also home to annual religious festivals, such as the Hajj and Ashoura, that generate significant amounts of food waste over short periods. During Ramadan, 30-50 per cent of the food prepared in Saudi Arabia is thrown away; these shares reach 25 per cent in Qatar and 40 per cent in the United Arab Emirates. The increase in food waste during Ramadan is attributed to the preparation of extravagant meals that far exceed families’ needs, and leftovers are thrown away. Furthermore, food wasted at an average wedding in Mecca, Saudi Arabia can be sufficient to feed 250 hungry people.

Food waste is affected by different factors at the household, food service and retail levels:

- At the household level, factors that affect food waste include consumption and treatment practices

and consumers’ tendency to avoid buying items with nearing “expiration” or “best by” dates. Improper handling and storage of food items, and errors in packaging and labelling or cross-contamination and adulteration also contribute to food waste.

There is a lack of general awareness coupled with a scarcity of data and information on food waste across West Asia. Although 10 countries have adopted related legislation, most countries still lack well-designed and enforceable policies and regulations on food waste reduction. In recognition of the problem of food waste in West Asia awareness campaigns (Food Forward UAE, I’M PERFECT campaign) and food banks in at least 10 countries have been put in place. At the governmental level, only two countries have committed to halving food loss and waste by 2030 (Saudi Arabia and the United Arab Emirates). Saudi Arabia is the only country in the region that has conducted a national quantitative assessment of food loss and waste.

To mitigate food waste in West Asia, efforts are needed to encourage the adoption of enhanced behavioural practices among food providers and consumers and enhance intra-regional trade and continued investments in the modernization of the food supply chain., Countries should measure their baselines, adopt national targets and strategies consistent with SDG 12.3, support supply chain collaboration to eliminate food loss and waste (through public-private partnerships where possible) and support innovative behaviour change approaches to shift norms on consumer food waste.

To assess the attitudes and behaviours that determine food waste generation among households in West

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_13572

