



BONDS FOR SUSTAINABLE DEVELOPMENT

Food Loss & Waste

<p>2 ZERO HUNGER</p> 	<p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p> 	<p>13 CLIMATE ACTION</p> 
---	--	---

OVERVIEW

What is the World Bank?

How Does the World Bank Invest for Impact?

A Focus on Food Loss & Waste



THE WORLD BANK

Treasury | IBRD • IDA

WHAT IS THE WORLD BANK?



WHAT IS THE **WORLD BANK**?



- **International Bank for Reconstruction & Development (IBRD)**
- Owned by **189 member countries**
- Two goals: **(1) End extreme poverty** and **(2) Boost shared prosperity**
- World's **largest source of development finance** for the past 70 years
- Activities aligned with the **sustainable Development Goals**
- **Aaa/AAA issuer**

THE WORLD BANK GROUP

IBRD

International Bank for Reconstruction and Development



Provide loans to governments of middle-income countries.



Issuer of World Bank (IBRD) Bonds

IDA

International Development Association



Provides loans and grants to governments of lower-income countries.



Funds raised from donors and IDA Bonds

IFC

International Finance Corporation



Promotes development by financing private sector enterprises in developing countries.



Issuer of IFC Bonds

MIGA

Multilateral Investment Guarantee Agency



Promotes foreign direct investment into developing countries by offering political risk insurance (guarantees) to investors and lenders.

ICSID

International Centre for the Settlement of Investment Disputes

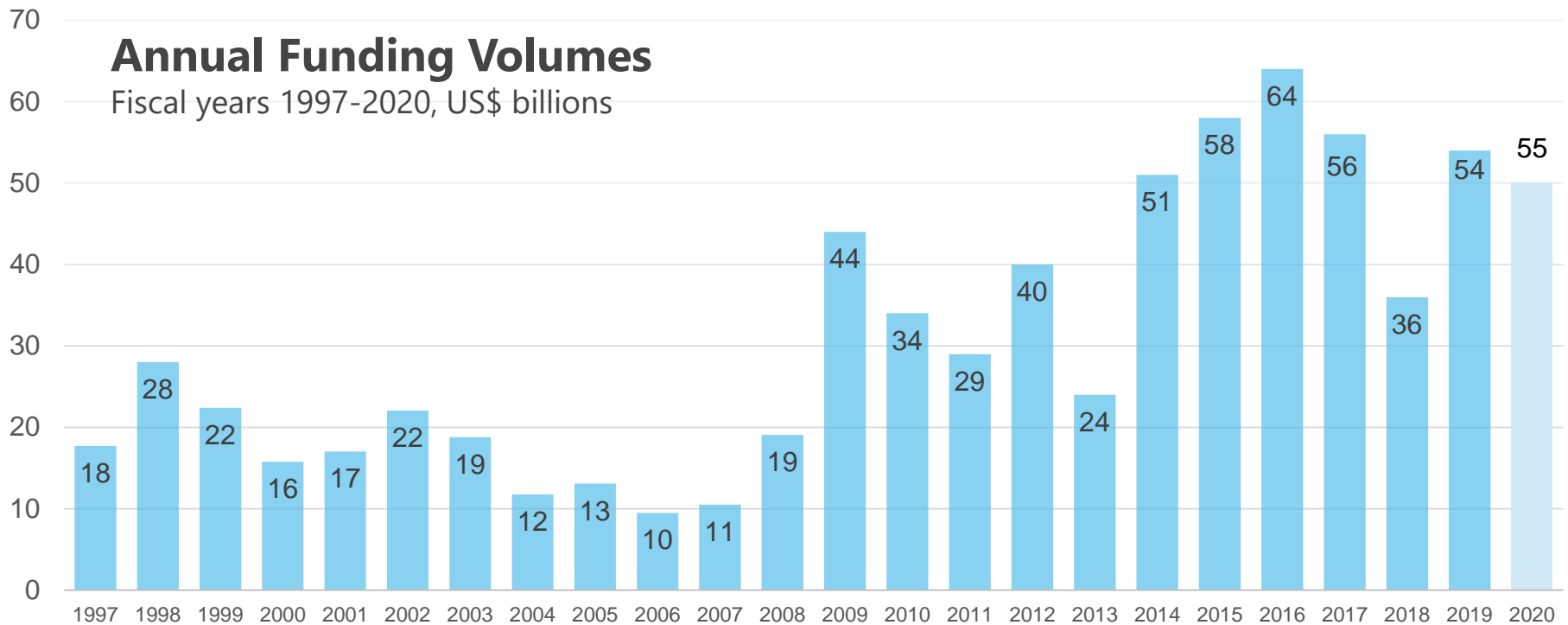


Provides international facilities for conciliation and arbitration of investment disputes.

IBRD, IDA and IFC are all three rated AAA/Aaa. They share the same overall development goals, but are legally separate entities. Each has its own risk profile and capital structure. **The World Bank Treasury is the treasury for IBRD and IDA.**

FUNDING VOLUMES

Funding volume has grown as a result of financing increased lending volumes following the global financial crises.

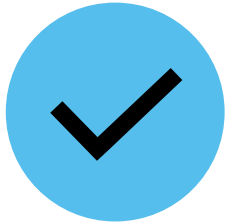


Note: World Bank fiscal years begin on July 1st and end on June 30th

**Projected*

WHY INVESTORS BUY WORLD BANK BONDS

Safety and Purpose.



Track Record

- Issuing debt since 1947
- Triple-A rating since 1959
- Products & innovation



Safety

- Strong balance sheet as a result of prudent financial policies
- Funds only for sovereigns and sovereign-guaranteed projects



Development Impact

- \$700 billion in lending
- Positive social/environmental impact



THE WORLD BANK

Treasury | IBRD • IDA

HOW DOES THE WORLD BANK INVEST FOR IMPACT?



PROJECTS MUST MEET STRICT STANDARDS

Projects are designed to:

- Address country-identified priorities
- Contribute to the World Bank goals (end extreme poverty and boost shared prosperity)
- Meet environmental, social and governance standards (ESG)
- Achieve expected outcomes



IBRD USE OF PROCEEDS

Supporting Sustainable Development in IBRD's Member Countries

The net proceeds from the sale of the Notes will be used by IBRD to finance sustainable development projects and programs in IBRD's member countries (without being committed or earmarked for lending to, or financing of, any particular projects or programs). IBRD's financing is made available solely to middle-income and creditworthy lower-income member countries who are working in partnership with IBRD to eliminate extreme poverty and boost shared prosperity, so that they can achieve equitable and sustainable economic growth in their national economies and find sustainable solutions to pressing regional and global economic and environmental problems. Projects and programs supported by IBRD are designed to achieve a positive social impact and undergo a rigorous review and internal approval process aimed at safeguarding equitable and sustainable economic growth.

IBRD USE OF PROCEEDS

Supporting Sustainable Development in IBRD's Member Countries

IBRD integrates five (5) cross-cutting themes into its lending activities helping its borrowing members create sustainable development solutions:



**Climate
Change**



Gender



Jobs



**Public-Private
Partnerships**



**Fragility,
Conflict &
Violence**

IBRD's administrative and operating expenses are covered entirely by IBRD's various sources of revenue (net income) consisting primarily of interest margin, equity contribution and investment income (as more fully described in the Information Statement).

IMPACT REPORTING

Various stages of impact reporting for investors

1

Individual Project Documentation

Home About Data Research Learning News **Projects & Operations** Publications Countries Topics

Projects & Operations

This page in: English | Español | Français | Português | Pycckoe | 中文

PROJECT

CN: Beijing Rooftop Solar Photovoltaic Scale-Up (Sunshine Schools) Project

FEATURED

Solar Power to Make Schools in Beijing Go Green

September 27, 2012 – Two million students and teachers in schools across Beijing will have access to green electricity thanks to a renewable energy program supported by the governments. [Read More](#)

NEWS

China: Solar Schools to Help Build Green Cities

September 30, 2014

PRESS RELEASE

China: World Bank to support rooftop solar for schools, low carbon city and key urban infrastructure development

March 20, 2013

LOANS & CREDITS

China - Beijing Rooftop Solar Photovoltaic Scale-Up (Sunshine Schools)

March 20, 2013

[Read More](#)

MULTIMEDIA

2

Project Stories

Panama Health Equity and Performance Improvement Project

Description

Purpose: Provide better health quality for mothers and their children

Expected Results (include):

- Provide 200,000 beneficiaries from 47 underserved rural communities access to basic health care through mobile health units to improve mother and child health care, including pregnant women completing at least 2 prenatal visits.
- Provide more babies with less than 1 year of age with complete vaccination records, and have more babies attended by skilled personnel.

IBRD Financing: \$40 million

Development Challenge

Panama's rural poor and indigenous communities experience much worse health outcomes than the rest of the population. For example, mortality rates for children under five years old can be as high as 2.4 higher than the national average of 19.9 deaths per 1,000 live births.

Project Description

In 2008, the World Bank supported Panama's Health Equity and Performance Improvement Project. The program uses mobile health teams to provide the rural poor with continuous access to a package of health services known to improve mother and child health care. The mobile health teams were contracted with the Ministry of Health using a payment scheme that provided them incentives to reach more underserved rural populations.



For more information: <http://www.worldbank.org/projects/105445health-equity-and-performance-improvement-project/panama>
Video: https://www.youtube.com/watch?v=5D95Z_EE

3

Newsletters

Bonds for Sustainable Development

INVESTOR NEWSLETTER • SUMMER 2017

70

World Bank Celebrates 70 Years Connecting Capital Markets to Development

Using Capital Markets to Link Investors to Sustainable Development

World Bank Green Bonds

World Bank Green Bonds

World Bank Green Bonds

4

Comprehensive Impact Report

#	Project Name (Number / Year/s Loans Approved) and Description	AM	Project Life	Annual Energy Savings ^a MWh	Annual Energy Produced MWh	Renewable Capacity Added MW	Target Results ^b				
							Annual GHG Emissions Avoided Tons of CO ₂ Eq.	Other results	Committed US\$ mil ^c	IBRD share ^d	Allocated US\$ mil ^e
1	Belarus - Biomass District Heating (P146194) (FY14): increase energy efficiency in district heating systems and replace natural gas with wood biomass as a renewable energy source.	M	20	236,000	1,660,000	106	420,000	Cumulative over 5 years: • 1,180,000 MWh energy savings from efficiency investments. • 2,100,000 tons of CO ₂ eq. emissions reduced.	90.0	100%	37.6
2	China - Beijing Rooftop Solar Photovoltaic Scale-Up (Sunshine Schools) Project (P125022) (FY13): promote renewable energy in 1000 schools and other educational institutions.	M	20	na	100,000	100	89,590	• 10 - 15% of schools' annual power use provided by renewable sources. • 650,000 students in 1,000 schools benefit.	120.0	50%	18.9



A FOCUS ON FOOD LOSS & WASTE

WHAT IS FOOD LOSS & WASTE?

Food Loss

Reduction in *quantity* or *quality* of food from production to distribution in the supply chain.

Examples: Pests, spoilage, non-conformance to standards, inadequate infrastructure

Food Waste

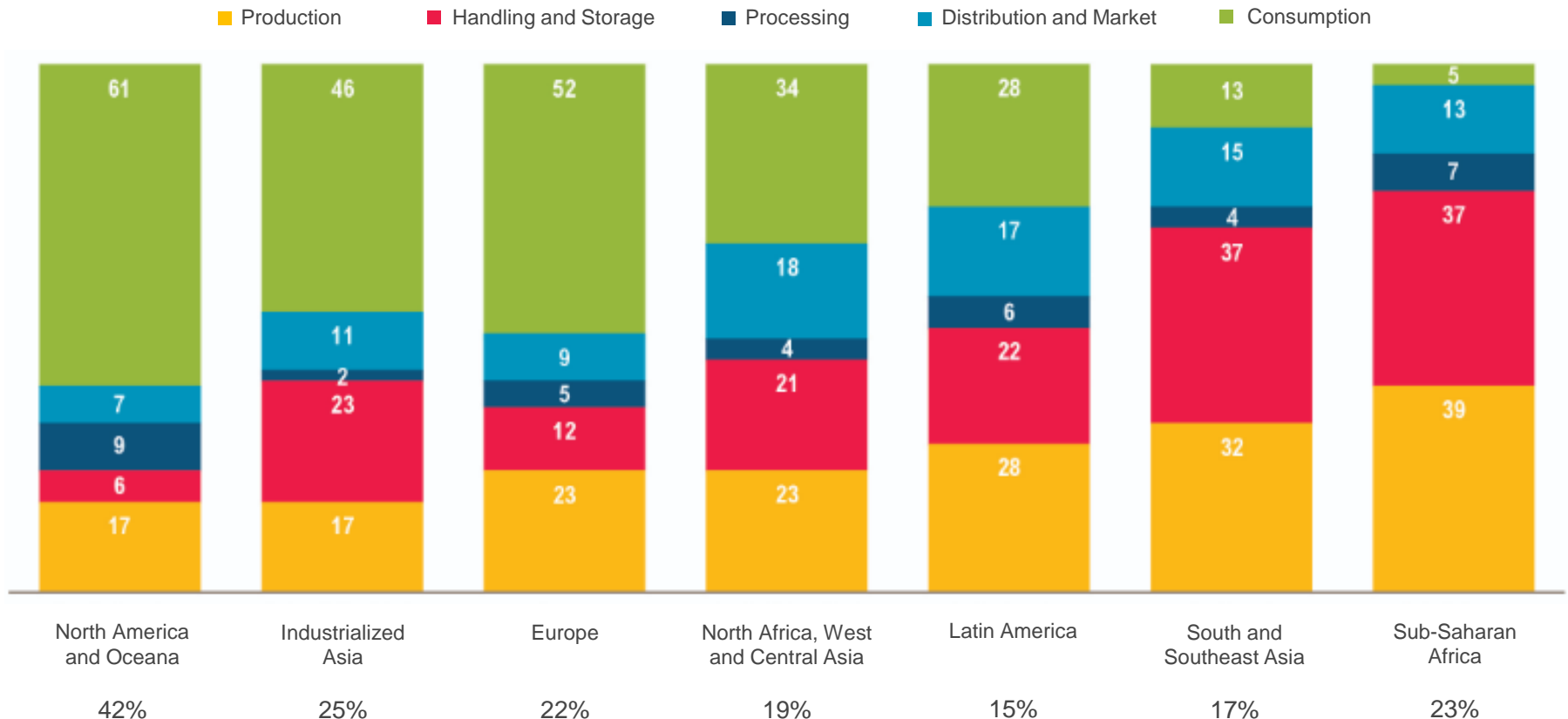
Discarded food that was *otherwise edible* at the retail and consumer levels.

Examples: Large portion sizes, over purchasing



FOOD LOSS & WASTE IS A GLOBAL ISSUE

Food **loss** largely occurs in developing country supply chains.
 Food **waste** predominantly occurs in highly urbanized and developed economies.



Share of total food available that is lost or wasted

Source: World Resources Institute, 2015.

FOOD LOSS & WASTE

815 million people go to bed hungry every night.

Around 1/3 of all food produced globally each year – 1.3 billion tons – is lost or wasted.

This results in roughly \$1 trillion in economic losses per year and accounts for:

8%

of annual GHG emissions, or 3rd largest emitter globally if it were a country

25%

of all water used in agriculture annually

960m

hectares of arable land, or the size of China

REDUCING FOOD LOSS & WASTE

What does it take?



1. Generating research and knowledge



2. Formulating strategies for action

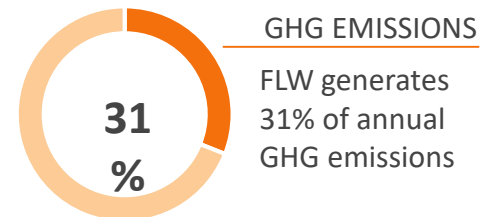
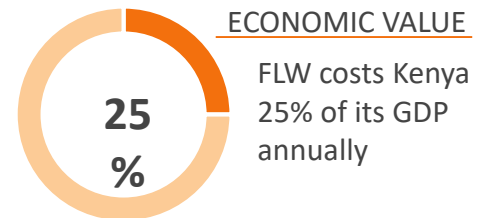
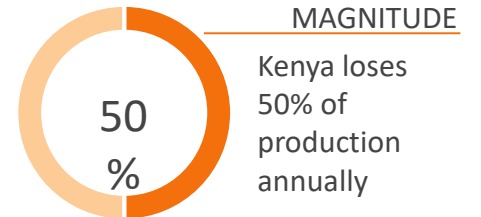


3. Partnering to improve outcomes



4. Investments

KENYA | Indicators Driving Action





MEXICO

Grain Storage and Information for Agricultural Competitiveness



IBRD Financing: \$120 million
Approved: 2017 **Closed:** 2022

For more information:

<http://projects.worldbank.org/P160570?lang=en>

Development Challenge: Agriculture continues to be an important sector in Mexico's economy, accounting for around 8% of the country's GDP and employing an average of 13% of the formal labor force or 7 million people. Storage infrastructure is insufficient and/or inadequate, lacking the necessary equipment and norms to determine and maintain uniform quality. Furthermore, the use of traditional storage structures has contributed to high levels of grain losses. Post-harvest losses in maize, wheat and beans range between 5-25% of total production, due to grain humidity and related fungal and pest problems. On-farm losses range between 13-28%, representing an important constraint to food security.

Project Description: The project will contribute to developing market conditions that enable producers to participate in a storage system that incentivizes productivity, reduces losses through post-harvest management, and facilitates access to financial mechanisms. Activities to improve the storage infrastructure include the construction, rehabilitation, or upgrading of existing grain storage facilities, including collection and trade centers.

Purpose: To improve the access of small grain producers to storage facilities and information, thus contributing to food security, market inclusion, and competitiveness in Mexico.

Expected Results (include):

- Benefit to 12,500 small and medium grain producers
- 300 grain storage facilities built and rehabilitated
- 250 producer organizations trained to operate storage facilities and use grain quality standards
- Creation of a carbon sink of 1.81 million tCO₂-eq from reducing losses over a lifetime of 20 years



CHINA

Ningbo Municipal Solid Waste Minimization and Recycling Project



IBRD Financing: \$80 million
Approved: 2013 **Closing:** 2019

Development Challenge: China's rapid economic growth and urbanization has led to low efficiency in natural resource utilization, serious pollution, declining environmental quality, and increasing environmental health problems. Many Chinese cities are experiencing rapid increase in solid waste generation and increasing pressure for solid waste management. The quantity of municipal solid waste collected and transported has increased more than five-fold nationwide from about 31 million tons in 1980 to about 157 million tons in 2009, and is projected to continue to rise exponentially, reaching 585 million tons in 2030.

Project Description: The project contributes to China's long-term objective of promoting sustainable development and circular economy and building an environmentally friendly and resource-saving society. There are four components: i) municipal solid waste separation, collection, sorting and transportation; ii) kitchen waste treatment; iii) waste management system enhancements; and iv) capacity building and project implementation and management support.

Purpose: To assist selected districts in Ningbo Municipality to increase the volume and proportion of municipal solid waste recycled with processes for waste separation at source and recycling.

Expected Results (include):

- Direct benefit to over two million residents
- 150,000 tonnes/year of kitchen waste collected
- 30,360 m³/day biogas generated for heat and power



ANGOLA

Smallholder Agriculture Development and Commercialization Project



© World Bank

IBRD Financing: \$70 million
Approved: 2017 **Closed:** 2021

Development Challenge: Around 44% of Angola's employed population works in the agriculture sector, with more than half of Angola's poor located in rural areas and dependent almost exclusively on agriculture for their livelihood. While the agriculture sector is essential to promote national development and economic diversification, its potential will remain untapped if productivity does not increase significantly. Post-harvest losses can reach 5–10% for cereals and up to and over 20% for vegetables.

Project Description: The project aims to not only increase productivity and production, but also to improve the lives of rural poor people by reducing poverty, promoting balanced growth, and transforming agriculture in the project areas. The project will increase agriculture institutional capacity and address critical bottlenecks in the value chain. Activities to address post-harvest challenges include investments aimed at increasing value addition, reducing post-harvest losses, and strengthening market linkages for key priority food and vegetable crop. Investments will target packaging, storage, transport, small-scale processing, grading, and other post-harvest management activities.

Purpose: To increase smallholder agriculture productivity, production and marketing for selected crops in the project areas.

Expected Results (include):

- Benefit to 175,000 are smallholder farmers and 600 are government staff
- 200 sub-projects engaged in post-harvest management and value-addition activities

For more information:

<http://projects.worldbank.org/P154447?lang=en>



COMBATING FOOD LOSS & WASTE

Partnering for Impact

SDG 12: Responsible Consumption and Production – is a pillar of Folksam’s sustainability strategy and key to corporate measures to improve resource efficiency by helping re-use and recycle customers’ damaged property and zeroing in on cafeteria food waste.

Summary of Terms

Issuer:	World Bank (IBRD)
Issuer Rating:	Aaa /AAA
Amount:	USD 300 million
Maturity:	3 years
Settlement Date:	28-March-2019
Maturity Date:	22-July-2022
Use of Proceeds:	Sustainable Development Projects



“With this investment, we can help to draw attention to the issue of food and resource efficiency. It is a key sustainability issue with far-reaching consequences both for the planet and human health, We strive for these goals through all aspects of our business, taking measures to improve resource efficiency in all our operations. This includes helping re-use and recycle customers’ damaged property and zeroing in on food waste in our own cafeteria. Every improvement counts, and I am proud that we can contribute in so many different ways to the goal of responsible production and consumption.”

-- Michael Kjeller
Head of Asset Management, Folksam Group:

THE WORLD BANK IBRD

The Fine Print



- All photos, graphics and content © The World Bank
- This presentation has been prepared by the World Bank (International Bank for Reconstruction and Development, IBRD) for information purposes only, and the IBRD makes no representation, warranty or assurance of any kind, express or implied, as to the accuracy or completeness of any of the information contained herein.
- No Offer or Solicitation Regarding Securities. This presentation may include information relating to certain IBRD securities. Any such information is provided only for general informational purposes and does not constitute an offer to sell or a solicitation of an offer to buy any IBRD securities. All information relating to securities should be read in conjunction with the appropriate prospectus and any applicable supplement and Final Terms thereto, including the description of the risks with respect to an investment in such securities, which may be substantial and include the loss of principal. The securities mentioned herein may not be eligible for sale in certain jurisdictions or to certain persons.
- Consult with Advisors. Investors considering purchasing an IBRD security should consult their own financial and legal advisors for information about such security, the risks and investment considerations arising from an investment in such security, the appropriate tools to analyze such investment, and the suitability of such investment to each investor's particular circumstances.
- No Guarantee as to Financial Results. IBRD does not warrant, guarantee or make any representation or warranties whatsoever, express or implied, or assumes any liability to investors regarding the financial results of the IBRD securities described herein.
- Each recipient of this presentation is deemed to acknowledge that this presentation is a proprietary document of IBRD and by receipt hereof agrees to treat it as confidential and not disclose it, or permit disclosure of it, to third parties without the prior written consent of the IBRD. All content (including, without limitation, the graphics, icons, and overall appearance of the presentation and its content) are the property of the IBRD. The IBRD does not waive any of its proprietary rights therein including, but not limited to, copyrights, trademarks and other intellectual property rights.



BONDS FOR SUSTAINABLE DEVELOPMENT

Food Loss & Waste

2 ZERO HUNGER



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION

