



Bank Hapoalim Green Bond Impact Report

September 2022



Table of Contents

3

Introduction

4

Highlights of Bank Hapoalim's
Green Bond Framework

5

Issuance
Details

6

Use of
Proceeds

7

Impact
Reporting

10

Internal and External
Assessments

Introduction

transportation, green buildings, waste management, and more. As of the end of 2021, the balance of financing provided by the bank for projects promoting a green environment stood at NIS 13 billion.

The integration of outstanding business operations with environmental protection and deep social involvement is an integral tenet of the organizational culture and business of Bank Hapoalim, and has been since its foundation over a century ago.

Bank Hapoalim is one of the first organizations in Israel to integrate ESG into our organizational activity and business operations. In 2020, we set our ESG goals for 2030, addressing aspects of the promotion of a green environment, gender equality, and diverse employment. The aim of weighing ESG considerations in our business activity is to support the social and economic growth of the State of Israel and to support global processes of fighting climate change, for the benefit of future generations.

Climate change is one of humanity's most significant challenges. The bank is committed to the effort to cope with the climate crisis and support decarbonization of the economy, through financing and investing in projects that promote a green environment, managing environmental and climate risks, and reducing the carbon footprint of the bank's operations.

Bank Hapoalim is a pioneer in Israel in financing green projects in the fields of renewable energy, clean

In addition to financing environmental infrastructure projects, the bank offers dedicated loans to encourage our private customers and small businesses to install solar-energy systems. We have also expanded the deployment of responsible investment advising services for our customers, and introduced exclusive, unique products allowing our customers to deposit into savings plans while making a social and environmental impact.

Over the last year, we continued to broaden and deepen the integration of ESG tenets with the activities of the bank. As part of this process, we have updated our ESG strategy and our goals for 2030 so that they encompass aspects of climate risk, including a commitment to stop financing new oil and coal exploration and production projects¹, and aim to further reduce the impact of our business activities on greenhouse-gas (GHG) emissions, to support Israel's climate goals.

The bank's activity and impact in environmental, social, and governance matters are reflected in its high scores in both local and international ESG rating agencies, positioning Bank Hapoalim with the top tier of leading banks in this field around the world.

To learn more, please see our [2021 ESG Report](#).



Bank Hapoalim's first Green Bond issuance

Bank Hapoalim issued its first US\$1 billion Tier 2 Green Bond in October 2021. The Green Bond issuance supported the bank's ambition to promote financing and investments in green infrastructures, and to help achieve Israel's targets in the transition to a low - carbon economy.

In June 2022, Bank Hapoalim was chosen to be the first Israeli bank to ever receive an award by the Climate Bond Initiative (CBI). CBI gave the 2021 Green Market Pioneer Award to Bank Hapoalim to mark its achievement in becoming a trailblazer for Green Bond issuances in Israel.

1. This policy has been in effect since March 2022. The bank's proprietary investments will be decreased gradually, until the end of 2026.

Highlights of Bank Hapoalim's Green Bond Framework



The bank's Green Bond Framework is aligned with the four core components of the ICMA Green Bond Principles:



Use of proceeds

An amount equal to the net proceeds raised by the issuance of the bond is used to finance or re-finance, in whole or in part, projects, loans, investments and expenditures related to specified eligible projects in the following categories:

- ◆ Renewable energy
- ◆ Clean transportation
- ◆ Pollution prevention and control
- ◆ Green buildings
- ◆ Energy efficiency projects



Project evaluation and selection

- ◆ The bank established a Green Bond Committee, which includes representatives of senior management or their delegates.
- ◆ The committee ensures that the proposed eligible projects are aligned with the categories and eligibility criteria as specified in the use of proceeds in the bank's Green Bond Framework.



Management of proceeds

- ◆ The ESG manager oversees the process of green instrument proceeds allocation and has established a register of eligible projects to track allocations.
- ◆ Pending allocation, proceeds are held as cash deposits or otherwise in accordance with the bank's liquidity guidelines for short-term investments.



Reporting

Within one year of issuance, and annually thereafter (until an amount of proceeds raised from any green instrument are fully allocated), Bank Hapoalim will publish an External Report, which will include (i) an Allocation Report and (ii) an Impact Report, subject to the availability of suitable information and data.

For more information, please see [Bank Hapoalim's Green Bond Framework](#)



S&P Global

Green Bond Framework external review

Bank Hapoalim engaged S&P Global to provide a second-party opinion (SPO) regarding the alignment of the bank's framework with the Green Bond Principles.

The SPO provided by S&P Global is publicly available on their website - www.spglobal.com



Issuance details

In October 2021, Bank Hapoalim issued its first Tier 2 Green Bond for US\$ 1 billion. The orderbook for Bank Hapoalim's inaugural green bond offering was 2.75 times oversubscribed at its peak.

Key issuance figures

Issuer	Bank Hapoalim B.M.
Notes	Fixed rate due Jan 2032
Tranche	Subordinated Tier 2 (CoCo)
Principal amount	\$1,000,000,000
Net proceeds	NIS 3,221 million
Coupon	3.255% semiannual
Tenor	10.25 years n.c. 5 years
TASE number	6620470
ISIN	IL0066204707

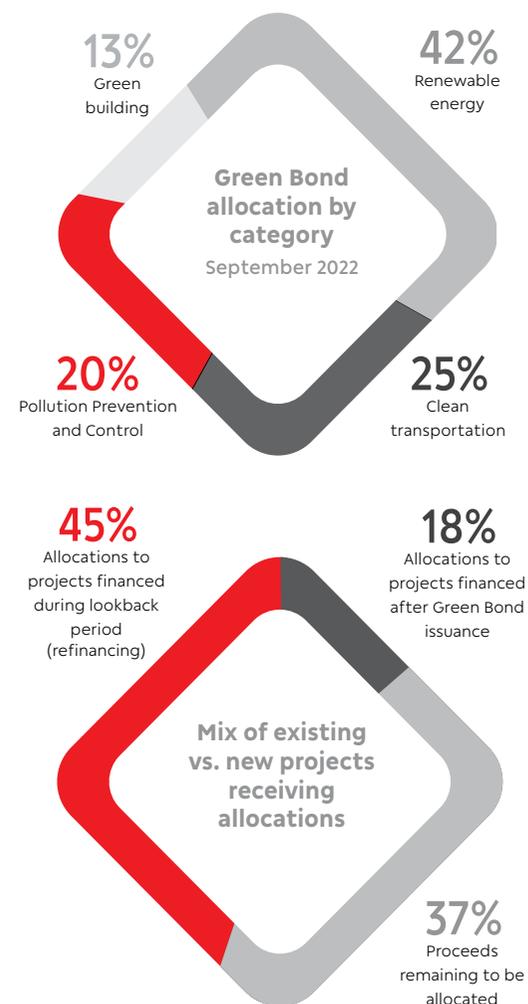
The rate will be set on January 2027 if the bank does not exercise its option to early redemption (for more details, please see <https://mayafiles.tase.co.il/rpdf/1407001-1408000/P1407189-00.pdf>)

Use of proceeds

As of June 30th, 2022, the Green Bond Committee has allocated a total of \$627,147,304² to eligible projects, which are 63% of the net proceeds raised by the issuance. All proceeds were allocated to local projects in Israel.

Use of proceeds – key financial figures

Green category	Project	Before issuance ³ per Framework lookback (refinancing)		After issuance		Total (million USD)
		Credit underwriting date	Allocated (million USD)	Credit underwriting date	Allocated (million USD)	
Renewable energy	 Solar energy system loans	Jan-20 - Sep-21	62.099	Nov-21 - Jun-22	93.145	155.244
	Wind farm	Apr-20	108.662			108.662
Clean transportation	 Light rail	Nov-20	155.231			155.231
Pollution Prevention and Control	 Waste sorting and treatment facility	Dec-20	124.185			124.185
Green building	 LEED certified building			Mar-2022	83.825	83.825
Allocated amount (\$)			450.177		176.970	627.147
Unallocated amount (\$) ⁴					372.853	372.853



2. NIS to USD conversion is based on the exchange rate on the Green Bond pricing date, October 14, 2021 (1 USD = 3.221 NIS).

3. According to the Green Bond Framework, the lookback period for projects eligible for allocation includes projects funded in the current year of issuance or during the two calendar years prior to the relevant Green Bond pricing date (in this case, October 14th, 2021).

4. The remaining \$372.853 million will be allocated and detailed in future reports.

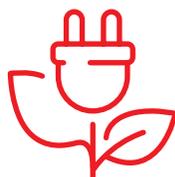
Impact reporting

Methodology

Bank Hapoalim has prepared this impact reporting with assistance from BDO Consulting, guided by the ICMA Harmonized Framework for Impact Reporting, with a focus on avoided GHG emission metrics, among other project-specific metrics.

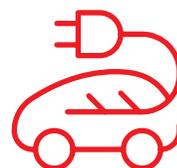
The GHG emissions calculation process is aligned with the Clean Development Mechanism (CDM) impact reporting methodology. The Partnership for Carbon Accounting Financials (PCAF) project financing methodology was used to calculate the Green Bond attribution to the projects' impacts.

Consistent with the foregoing, all impact emissions were calculated ex-ante (developed prior to project execution). The reported environmental impact is estimated based on available data and calculated in comparison with the following baselines:



Renewable energy

Based on expected annual power generation⁵, avoided GHG emissions were calculated by using the average emission factor of independent power producers (IPPs) in Israel, the primary alternative to renewable energy production.⁶



Clean transportation

Based on estimated daily commuters and average commuting distance per day,⁷ avoided GHG emissions were calculated in relation to traditional transport modes that passengers would have used in the absence of the project activity.⁸



Green buildings

The impact of green buildings was calculated based on the expected energy savings, as detailed in the energy model which was submitted to LEED for Gold certification. The energy model relied on the building's projected energy consumption versus the baseline building standard.⁹ Avoided GHG emissions were calculated using Israel's national electricity grid GHG emission factor.¹⁰



Waste treatment

Avoided GHG emissions of the waste treatment project were compared to baseline emissions of a standard Israeli landfill with a biogas collection and flaring system. The generation of electricity from anaerobic digestion was calculated as an alternative energy source to IPP.

5. The annual power generation for the wind farm was received directly from the project developer. The annual power generation for solar energy systems was calculated based on the average solar installment cost (2020- 2022) received from the Israeli Electricity Authority.
6. The average IPP GHG emission factor is 0.358 kg CO₂e/MWh, calculated internally based on data from the Israeli Ministry of Environmental Protection.
7. The estimate relies on the currently operating rail lines.
8. The baseline model split (car, bus, taxi, motorcycle) was calculated internally based on the Israeli Ministry of Transportation database, 2010-2019.
9. The baseline was defined as ASHRAE 90.1-2007 by the project developer to receive LEED Platinum certification.
10. The average 2021 national GHG emission factor is 0.47 kg CO₂e/MWh, as obtained from the Israeli Ministry of Environmental Protection.



Impact metrics



Solar energy systems

Provision of dedicated loans to encourage households and small businesses to install solar energy systems, which generate electricity from renewable energy sources.

241 loans to households
690 loans to small businesses

133 MW capacity

225,000 MWh projected annual electricity generation

80,600 tCO₂e Green Bond share of annually avoided GHG emissions



Wind farm

Financing for one of the largest wind farms in Israel.

39 wind turbines

189 MW capacity

524,500 MWh projected annual electricity generation

53,000 tCO₂e Green Bond share of annually avoided GHG emissions



Light railway project

Financing the extension of an existing railway line.

7.7 km extension of the railway line

65,000 estimated passengers per day

1,320 tCO₂e Green Bond share of annually avoided GHG emissions

Construction of most of the projects described in the report, with the exception of the solar-energy systems, is in progress. Avoided emission figures refer to first year of full operation after completion of construction.



Advanced waste sorting and treatment facility

The Bank financed a facility that will be established in the center of Israel to sort municipal solid waste into recyclable waste and organic waste. The organic waste will undergo anaerobic digestion to create two primary byproducts: compost to be used as fertilizer and natural gas to be used as an alternative energy source for power generation.

1,500 tonnes
daily waste capacity

50%
of waste diverted from landfills

39,000 MWh
projected annual electricity generation

39,250 tonnes
annual compost

11,580 tCO₂e
Green Bond share of annually avoided GHG emissions



Green building

The Bank financed a complex green building project, located in Tel Aviv.

The LEED V3 certification process for this project is in progress. After completion of the design review, the project has already been awarded 65 LEED points and has passed the Gold certification threshold, but is targeting Platinum certification, which is expected after completion of the construction review.

250,000 m²
area of which 140,000 dedicated to offices, 13,000 to residential living space and 6,200 to retail

4,000 MWh
annual energy savings

260 tCO₂e
Green Bond share of annually avoided GHG emissions

Bank Hapoalim's Green Bond asset portfolio - estimated environmental impact summary

Green category	Selected assets	Allocated (million USD)	Bank Hapoalim Green Bond share of estimated annually avoided GHG emissions (tCO ₂ e) ¹¹
Renewable energy	Solar	155.244	80,600
	Wind	108.662	53,000
Clean transportation	Light rail	155.231	1,320
Pollution control	Waste treatment facility	124.185	11,580
Green building	LEED certified building	83.825	260
Total		627.147	146,760

11. tCO₂e – metric tonnes of carbon dioxide equivalent emissions.

Internal and external assessments

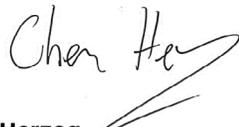
Impact assessment and reporting

BDO Israel performed an impact assessment of Bank Hapoalim's Green Bond portfolio to estimate the expected avoided GHG emissions. The evaluation was conducted by a team of BDO economists and environmental experts headed by chief economist and Partner, Chen Herzog.

The impact assessment was conducted in line with the KPIs outlined in Bank Hapoalim's Green Bond Framework and in accordance with the ICMA Green Bond Principles Harmonized Impact Reporting recommendations, Clean Development Mechanism (CDM), and the Partnership of Carbon Accounting Financials (PCAF). The assessment was based on information provided by Bank Hapoalim, by the companies that manage the projects, and by public sources (the Israeli Ministry of Environmental Protection, the Israeli Ministry of Transportation, and the Israeli Electricity Authority, etc.).

Impact calculations have been carried out on a pro rata basis to reflect the Green Bond share of the total investment portfolio. Avoided emission figures refer to first year of full operation after completion of construction. Findings of the impact assessment show that the allocated proceeds of the Green Bond as described in this report, have a total estimated impact of 146,760 tCO₂e avoided emissions per year.

Methodology and additional impact metrics are detailed in the Impact Reporting section of this report.



Chen Herzog
Chief Economist and Partner
BDO Consulting



Third Party Attestation

Agreed Upon Procedures Assurance Report

To the Management of Bank Hapoalim (the "Bank")

We have examined the Bank management's assertion on page 6 of this Green Bond Annual Report, as of June 30, 2022, stating that the net proceeds of \$627,147,304 from the October 2021 issuance of the Bank's Fixed Rate Notes due Jan 2032, were allocated to finance Eligible Green Projects as defined in management's assertion. The Bank's management is responsible for its assertion. Our responsibility is to evaluate management's assertion based on our examination. An examination involves performing procedures to obtain evidence about management's assertion. The sufficiency of these procedures is solely the responsibility of those parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose. Our examination was based on the following agreed upon procedures:

- A. Conducting interviews with relevant Bank's management representatives.
- B. Examining that the projects selected for the green bond report are eligible as part of the green bond framework categories as defined by the Bank.
- C. Examining supporting materials with respect to the use of proceeds and key financial figures including the calculation of the % allocations to each project category, the total (overall allocation), allocated and credit underwriting date (with respect to framework lookback) specified on page 6 of this green bond report.

We believe that the evidence we obtained is sufficient and appropriate to provide a reasonable basis for our report.

Only the information included in the "use of proceeds" table and funded amounts up to \$627,147,304 in the table on page 6 of this Green Bond Annual Report is part of bank's management assertion and our examination engagement. The other information in this Green Bond Annual Report has not been subjected to the procedures applied in our examination engagement, and accordingly, we make no comment as to its completeness and accuracy and do not express an opinion or provide any assurance on such information. Based on the evidence we have obtained, the procedures we have performed as described above and on our evaluation of management's assertion that, as of June 30, 2022, the net proceeds of \$627,147,304 from the October 2021 issuance of the Fixed Rate Notes due Jan 2032: (1) nothing has come to our attention that causes us to believe that the projects selected for the green bond report are not eligible projects according to the green bond framework categories as defined by the Bank; and (2) The management's assertion that the net proceeds were allocated to finance Eligible Green Projects is fairly stated, in all material respects.

PricewaterhouseCoopers Advisory Ltd

Eran Raz,
Partner
August 30, 2022



Disclaimer

- ◆ This Green Bond Impact Report (the “Report”) contains and incorporates by reference public information not separately reviewed, approved or endorsed by Bank Hapoalim and accordingly, no representation, warranty or undertaking, express or implied, is made and no responsibility or liability is accepted by Bank Hapoalim as to the accuracy, reasonableness or completeness of such information.
- ◆ The Report may contain statements about future events and expectations that are forward-looking statements. Forward-looking statements inherently involve risks and uncertainties that could cause actual results to differ materially from those predicted in such statements. Bank Hapoalim does not undertake any obligation to update, modify or amend any part of this document or any statements, projections, expectations, estimates or prospects contained herein to reflect actual changes in them, or in factors affecting these statements, projections, expectations, estimates or prospects or to otherwise notify any addressee if any information, opinion, forecast, projections, expectations, estimates or prospects set forth herein changes or subsequently becomes inaccurate.
- ◆ Expected benefits of the projects as described in this Report may not be achieved. Factors including (but not limited to) market, political and economic conditions, changes in government policy, changes in laws, rules or regulations, failure to complete or implement projects and other challenges could limit the ability to achieve some or all of the anticipated benefits of these initiatives, including the funding and completion of Eligible Green Projects.
- ◆ No representation is made as to the suitability of any Bank Hapoalim Green Bond to fulfil environmental and sustainability criteria required by specific investors. Eligible Green Projects may not satisfy an investor's expectations concerning environmental or sustainability benefits, and may result in adverse impacts.
- ◆ In the ordinary course of its activities, Bank Hapoalim continues to fund other projects, loans, investments and expenditure which are not considered Eligible Green Projects, including in sectors identified in the “Exclusions” section of the Green Bond Framework.
- ◆ This Report is provided for information purposes only, is not intended to be and should not be construed as providing legal or financial advice. This report is not, does not contain, and is not intended as an offer to sell or a solicitation of any offer to buy any securities issued by Bank Hapoalim.



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