



GREEN BOND

Full Allocation
and Impact Report



September 2023



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Introduction

Bank Hapoalim is one of the first organizations in Israel to integrate ESG into our organizational activity and business operations. 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 the 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.

In 2020, we set out our ESG goals for 2030, focusing on the bank's role in the promotion of a green environment. As part of our ESG strategy and our goals for 2030, we have also made a commitment to stop financing new oil and coal exploration and production projects and to gradually scale back holdings in companies engaged in coal and oil activities in the proprietary portfolio of the bank to zero by the end of 2026.¹

Bank Hapoalim is a pioneer in Israel in financing green projects in the fields of renewable energy, clean transportation, green buildings, waste management, and more. Over the years, we have provided more financing for projects promoting a

green environment than any other financial institution in Israel. As of the end of 2022 we had already reached the goal we had set for financing of these projects in the decade to 2030 – NIS 20 billion; as a reflection of our ambition to continue to improve our environmental impact in the coming years, we therefore set a new goal of NIS 37 billion in green project financing.

In 2022, we embarked on the process of monitoring carbon emissions in the credit portfolio of the bank for 2021, to provide a baseline for future measurements. This effort is rooted in our aim of reducing the impacts of our business operations and financing activities on greenhouse-gas emissions, in order to support the climate goals of the State of Israel.

The bank's activity and impact in environmental, social, and governance matters are reflected in its high scores from 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 about our ESG strategy and activities, please see our [2022 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 issuance of the Green Bond supported the bank's ambition to promote financing and investments in green infrastructures and help achieve Israel's targets in the transition to a low-carbon economy.



In June 2022, Bank Hapoalim became the first Israeli bank ever chosen to receive an award from 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.

In September 2022, we released our first allocation and impact report in respect of our debut Green Bond. The report described the allocations during the first year of about 60% of the net proceeds raised through the bonds to green projects that met the eligibility criteria in the Green Bond Framework. The report also presented an assessment of the impact of these projects on avoided emissions of greenhouse gases into the atmosphere. For more information, see the first Bank Hapoalim Green Bond Impact Report, available on the bank's website [here](#).

We are proud to announce that we have completed the full allocation of the amount raised by the Green Bond within two years of the issuance. This report presents the allocation of the remaining proceeds to new green projects financed after the issuance and the projects' impact. This report also includes a summary of the Green Bond's total portfolio and impact.

1. This policy has been in effect since March 2022.

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 refinance, 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 will establish a Green Bond Committee, which will include representatives of senior management or their delegates.
- ◆ The committee will ensure that the proposed eligible projects are aligned with the categories and eligibility criteria as specified in the Use of Proceeds section of the bank's Green Bond Framework.



Management of proceeds

- ◆ The ESG manager will oversee the process of green instrument proceeds allocation and establish a register of eligible projects to track allocations.
- ◆ Pending allocation, proceeds will be 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 the proceeds raised from any green instrument are fully allocated), Bank Hapoalim will publish a Green Bond 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 Finance 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 at www.spglobal.com



Issuance details

In October 2021, Bank Hapoalim issued its first Tier 2 Green Bond in the amount of US\$ 1 billion. This inaugural green bond offering was 2.6 times oversubscribed, reflecting both strong investor interest in green products and the market's confidence in the financial strength of Bank Hapoalim.

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% (1.6275% semiannual)
Tenor	10.25 years n.c. 5 years
TASE number	6620470
ISIN	IL0066204707

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

Use of proceeds

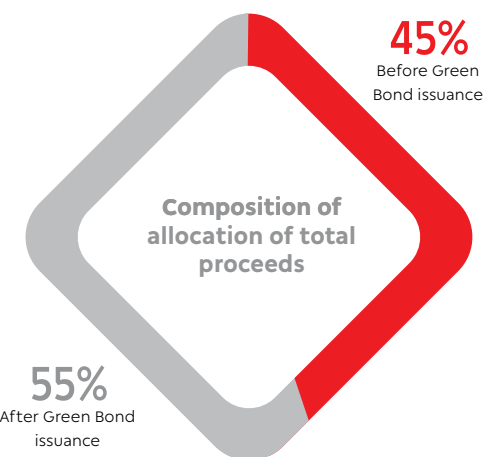
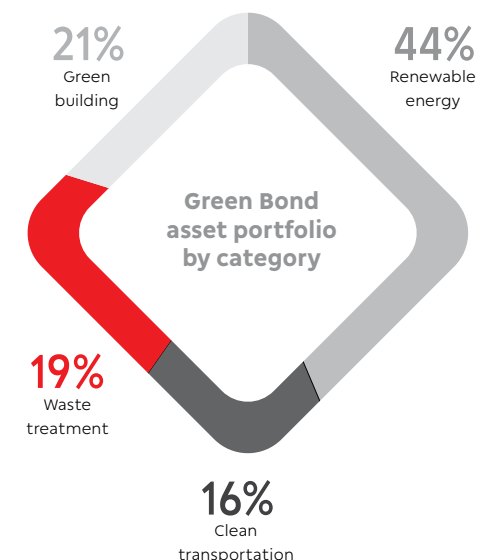
Our September 2022 Green Bond Report set out how we had allocated \$627.147 million in proceeds from our debut Green Bond issuance to a mix of new and existing projects in our portfolio. That left just \$372.853 million in proceeds for further allocation to new projects. This report confirms that we have allocated **the remaining proceeds in the amount of \$372,852,696²** to new green projects that were financed after the date of the issuance.

The following table presents a summary of all allocated Green Bond proceeds:

Green category	Project	Allocated proceeds listed in first Green Bond Report (million USD)	Proceeds allocated to new green projects (million USD) ³	Total allocated proceeds (million USD)
Renewable energy 	Solar energy system loans to households and small businesses	155.244	77.913	233.157
	Solar farms in Israel		16.455	16.455
	Solar farms in the EU and USA		77.616	77.616
	Wind farm	108.662		108.662
Clean transportation 	EV charging stations		6.209	6.209
	Light rail	155.231		155.231
Pollution Prevention and Control 	Waste sorting and treatment facilities ⁴	124.185	68.612	192.797
Green building 	LEED certified buildings	83.825	126.048	209.873
Total allocated amount (\$)		627.147	372.853	1,000

As of June 2023, we have fully allocated 100% of the net proceeds raised by the issuance, in the amount of \$1,000,000, to eligible projects.

92% of the proceeds were allocated to local green projects in Israel, and 8% were allocated to green projects abroad.



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. All of the green projects in this column were financed after the date of the issuance.

4. Includes the extension of additional financing for a waste sorting and treatment facility covered in our September 2022 report.

Impact reporting

Methodology

Bank Hapoalim publishes this impact reporting with assistance from BDO Consulting based on its professional knowledge regarding the holistic environmental impacts of the selected Green Bond projects. The impact process was guided by the ICMA Harmonized Framework for Impact Reporting, which focused 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 attribution to the Green Bonds of the projects' impact on avoided carbon emissions.

Avoided carbon emissions are reported either ex-ante or ex-post, depending on the stage of project construction. The reported avoided carbon emissions are estimated based on available data and calculated in comparison with the following baselines for each of the following categories:⁵



Renewable energy

Based on expected annual power generation,⁶ 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.⁷ For renewable energy projects located abroad, average emission factors were used in accordance with the projects' locations.



Clean transportation

Based on the amount of projected annual electricity provided through EV charging stations,⁸ avoided GHG emissions were calculated in relation to traditional fuel that vehicles would have used in the absence of the project.⁹



Green buildings

Green building impact was calculated based on the expected energy savings, as detailed in the energy model submitted to LEED for Platinum certification. The energy model relied on the building's projected energy consumption versus the baseline building standard.¹⁰ Avoided GHG emissions were calculated using Israel's national electricity grid GHG emission factor.¹¹



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 measurements of avoided GHG emissions were conducted in June 2023 for the newly allocated projects. Avoided GHG emissions of the projects showcased in the first Green Bond Report were not reevaluated. To find out more about the impact measurement process and results for the green projects that were allocated in the first Green Bond Report, [click here](#).

6. The annual power generation for the solar farms was received directly from the project developers. 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.

7. The average IPP GHG emission factor is 0.39 kg CO₂e/MWh, calculated internally based on data from the Israeli Ministry of Environmental Protection and electricity production companies.

8. Based on BDO estimates.

9. The emission factor for fuel combustion is 2.34 CO₂e per liter, as provided by the Israeli Ministry of Environmental Protection.

10. The baseline was defined as ASHRAE 90.1-2010 by the project developer for LEED Platinum certification.

11. The average 2021 national GHG emission factor is 0.47 kg CO₂e/MWh, as obtained from the Israeli Ministry of Environmental Protection.



Impact metrics of the new eligible projects

The following impact metrics are focused on the new eligible projects that we report on, in the allocation section of this report and which complete the full allocation of proceeds from our Green Bond.¹²

Construction of most of the projects described below, with the exception of the solar energy systems, is in progress. Avoided emission figures, attributed to Bank Hapoalim's green bond, refer to first year of full operation after completion of construction. Other impact metrics refer to total project impacts as provided by project developers. GHG emissions are measured in metric ton units.



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.

49 loans to households 356 loans to small businesses¹²

69 MW capacity

117,500 MWh projected annual electricity generation

45,800 tCO₂e Green Bond share of annually avoided GHG emissions



Local solar farm

Financing of solar panel installation projects in Israel.

17 MW capacity

28,700 MWh projected annual electricity generation

11,200 tCO₂e Green Bond share of annually avoided GHG emissions



Solar farms abroad

Financing of four solar farms – three in Europe and one in the United States.

822 MW capacity

1,400,000 MWh projected annual electricity generation

44,400 tCO₂e Green Bond share of annual avoided GHG emissions

12. To read about the impact metrics for eligible projects allocated in the first year of the Green Bond, see Bank Hapoalim's first Green Bond Impact Report.



Advanced waste sorting and treatment facilities

The bank financed two facilities that 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.

1,750 tons
daily waste capacity

800 tons
of waste diverted
from landfills

39,000 MWh
projected annual
electricity generation

9,100 tCO₂e
Green Bond share of annually
avoided GHG emissions



Green building

The bank provided financing for a green building project located in central Israel, planned in accordance with the LEED standard. The project, currently in the initial construction phase, aspires to obtain LEED Platinum certification, as confirmed by the construction company and its green building consulting firm.

105,000 m²
area, of which 75,000 m² dedicated
to offices and 30,000 m² to retail

880,000 kWh
annual renewable energy production

6,700 MWh
annual energy savings

650 tCO₂e
Green Bond share of annually
avoided GHG emissions







EV charging stations

Financing the installation of EV charging stations across Israel.

9,500 tCO₂e
Green Bond share of annually
avoided GHG emissions

Summary of estimated avoided GHG emissions in Bank Hapoalim's Green Bond portfolio

Green category	Selected green projects for Green Bond	Bank Hapoalim Green Bond share of annual avoided GHG emissions based on allocations in first Green Bond Report (tCO ₂ e)	Bank Hapoalim Green Bond share of annual avoided GHG emissions based on allocations by June 2023 (tCO ₂ e)	Bank Hapoalim Green Bond total share of annual avoided GHG emissions (tCO ₂ e)
Renewable energy 	Solar energy system loans	80,600	45,800	126,400
	Solar farm in Israel		11,200	11,200
	Solar farms abroad		44,400	44,400
	Wind farm	53,000		53,000
Clean transportation 	Light rail	1,320		1,320
	EV charging stations		9,500	9,500
Pollution control 	Waste treatment facilities	11,580	9,100	20,680
Green building 	Green buildings	260	650	910
Total		146,760	120,650	267,410

Internal and external assessments

Impact assessment and reporting - BDO

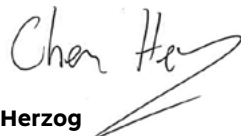
BDO Israel performed an impact assessment of Bank Hapoalim's Green Bond portfolio to estimate the expected avoided GHG emissions. The evaluation was conducted by a team of BDO economists and environmental experts headed by Chief Economist and Partner Chen Herzog.

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, the Israeli Electricity Authority, etc.).

Avoided emissions estimates 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 the first year of full operation after completion of construction.

Findings of the impact assessment show that, as of June 2023, the allocated proceeds of the Green Bond, as described in this report, have a total estimated impact of **267,410 tCO₂e avoided emissions per year**.¹³

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



Chen Herzog
Chief Economist and Partner
BDO Consulting



13. Avoided GHG emissions of the selected projects showcased in the first Green Bond Report were not reevaluated in the making of this report. To find out more about the impact measurement process and results for the green projects that were allocated in the first Green Bond Report [click here](#).

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, 2023, stating that the remaining proceeds of \$372,852,696 from the October 2021 issuance of the Bank's Fixed Rate Notes due Jan 2032, and together with the net proceeds of \$627,147,304 that were allocated as of June 30, 2022 (see our Third Party Attestation included in Bank Hapoalim Green Bond Impact Reports of September 2022), a total of \$1,000 million, 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 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), and the 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 \$1,000 million (including \$627,147,304 as of June 2022 and an additional \$372,852,696 as of June 2023) in the table on page 6 of this Green Bond Annual Report are part of the 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 our evaluation of management's assertion that, as of June 30, 2023, the remaining proceeds of \$372,852,696 and a total of \$1,000 million (together with the net proceeds of \$627,147,304 that were allocated as of June 30, 2022) 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 assertion that the 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.
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- ◆ 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, and 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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