117TH CONGRESS 1ST SESSION

H. R. 2639

To establish forest conservation practices through management, reforestation, and utilization which lead to the sequestration of greenhouse gases, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

April 19, 2021

Mr. Westerman (for himself, Mr. McCarthy, Mr. Schrader, Mr. Amodei, Mr. Armstrong, Mr. Bacon, Mr. Baird, Mr. Barr, Mr. Bentz, Mr. BISHOP of Georgia, Mr. BURCHETT, Mr. CALVERT, Mr. CARL, Mr. CAR-TER of Georgia, Ms. CHENEY, Mr. COLE, Mr. CRAWFORD, Mr. CREN-SHAW, Mr. CUELLAR, Mr. CURTIS, Mr. RODNEY DAVIS of Illinois, Mrs. FISCHBACH, Mr. FORTENBERRY, Ms. FOXX, Mr. FULCHER, Mr. GON-ZALEZ OF Ohio, Miss GONZÁLEZ-COLÓN, Mr. GOSAR, Ms. GRANGER, Mr. Graves of Louisiana, Ms. Herrell, Mr. Higgins of Louisiana, Mr. HILL, Mr. JOHNSON of South Dakota, Mr. JOYCE of Ohio, Mr. KELLY of Mississippi, Mrs. Kim of California, Mr. Lamborn, Mr. Latta, Mrs. Lesko, Mr. Lucas, Ms. Mace, Ms. Malliotakis, Mr. Mann, Mr. McCaul, Mrs. Rodgers of Washington, Mr. Meijer, Mr. Meuser, Mrs. Miller-Meeks, Mr. Moore of Utah, Mr. Newhouse, Mr. Nunes, Mr. Obernolte, Mr. Owens, Mrs. Radewagen, Mr. Rogers of Alabama, Mr. Rouzer, Mr. Austin Scott of Georgia, Mr. Simpson, Mr. STAUBER, Ms. STEFANIK, Mr. STEWART, Mr. STIVERS, Mr. THOMPSON of Pennsylvania, Mr. Tiffany, Mr. Valadao, Mr. Weber of Texas, Mr. Webster of Florida, Mr. Wilson of South Carolina, Mr. Wittman, Mr. Womack, Mr. Young, and Mr. Reschenthaler) introduced the following bill; which was referred to the Committee on Agriculture, and in addition to the Committees on Foreign Affairs, Natural Resources, Ways and Means, Science, Space, and Technology, and Education and Labor, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

- To establish forest conservation practices through management, reforestation, and utilization which lead to the sequestration of greenhouse gases, and for other purposes.
 - 1 Be it enacted by the Senate and House of Representa-
 - 2 tives of the United States of America in Congress assembled,
 - 3 SECTION 1. SHORT TITLE; TABLE OF CONTENTS.
 - 4 (a) Short Title.—This Act may be cited as the
- 5 "Trillion Trees Act".
- 6 (b) Table of Contents for
- 7 this Act are as follows:
 - Sec. 1. Short title; table of contents.
 - Sec. 2. Definitions.

TITLE I—CARBON SEQUESTRATION THROUGH REFORESTATION ACTIVITIES

Subtitle A—Reforestation Goals

- Sec. 101. National forest carbon stock targets.
- Sec. 102. Trillion Trees Task Force.
- Sec. 103. Philanthropic Reforestation Advisory Council.
- Sec. 104. Trillion Trees Challenge Fund.
- Sec. 105. Renewable resource assessment update and lifecycle analysis.
- Sec. 106. Forest inventory and analysis.
- Sec. 107. National Forest Foundation activities.

Subtitle B—Regeneration

- Sec. 111. Reforestation programs.
- Sec. 112. Reforestation trust fund.
- Sec. 113. Solving shortages for seedlings.
- Sec. 114. Healthy forest reserve program.
- Sec. 115. Forestry education and workforce development grant program.
- Sec. 116. Civilian Conservation Centers reforestation activities.
- Sec. 117. Forest technology enhancements for conservation and habitat improvement.

Subtitle C—Urban Forests

- Sec. 121. Urban and community forestry assistance.
- Sec. 122. Civilian Conservation Center urban forestry demonstration program.

Sec. 123. Memorandum of understanding to coordinate urban forestry programs.

Subtitle D—International Forests

- Sec. 131. Sense of Congress.
- Sec. 132. International Forest Foundation.
- Sec. 133. International engagement.
- Sec. 134. Global climate change program.
- Sec. 135. International forestry cooperation.
- Sec. 136. Modifications to authorities relating to tropical forests.

TITLE II—CARBON SEQUESTRATION THROUGH IMPROVED FOREST MANAGEMENT ACTIVITIES

- Sec. 201. Land use planning; supplements to programmatic environmental impact statements.
- Sec. 202. Forest carbon stock on State and private forests.
- Sec. 203. Good neighbor authority.
- Sec. 204. Research and development programs.

TITLE III—MARKET INCENTIVES FOR CARBON SEQUESTRATION

- Sec. 301. Biochar demonstration project and grant program.
- Sec. 302. Sustainable building and residence credit.
- Sec. 303. Clarification of research and development program for cellulosic biochemical and bioplastics.
- Sec. 304. Tribal and Alaska Native biomass demonstration project extension.

1 SEC. 2. DEFINITIONS.

- 2 In this Act:
- 3 (1) Afforestation.—The term
- 4 "afforestation" means a project or activity to estab-
- 5 lish a forest or stand of native trees in an ecosystem
- 6 where there is not a forest or tree cover, consistent
- 7 with the best available science.
- 8 (2) Forest carbon flux.—The term "forest
- 9 carbon flux" means the net annual change in carbon
- residing within forest carbon pools and in forest car-
- bon stock.
- 12 (3) FOREST CARBON POOLS.—The term "forest
- carbon pools" means the individual, nonoverlapping

1	categories where forest carbon resides and in-
2	cludes—
3	(A) aboveground biomass, belowground
4	biomass, dead wood, litter, and mineral and or-
5	ganic soils in forest ecosystems, woodlands, and
6	trees outside forests including urban trees; and
7	(B) harvested wood products (in use or in
8	solid waste disposal sites).
9	(4) Forest carbon stock.—The term "forest
10	carbon stock" means the absolute quantity of carbon
11	stored within all forest carbon pools.
12	(5) Forest plan.—The term "forest plan"
13	means—
14	(A) a land use plan prepared by the Bu-
15	reau of Land Management for public lands pur-
16	suant to section 202 of the Federal Land Policy
17	and Management Act of 1976 (43 U.S.C.
18	1712); or
19	(B) a land and resource management plan
20	prepared by the Forest Service for a unit of the
21	National Forest System pursuant to section 6
22	of the Forest and Rangeland Renewable Re-
23	sources Planning Act of 1974 (16 U.S.C.
24	1604).

1	(6) Forest management activity.—The
2	term "forest management activity" means a project
3	or activity carried out by the Secretary concerned on
4	National Forest System lands or public lands con-
5	sistent with the forest plan covering the lands.
6	(7) National forest system.—The term
7	"National Forest System" has the meaning given
8	that term in section 11(a) of the Forest and Range-
9	land Renewable Resources Planning Act of 1974 (16
10	U.S.C. 1609(a)).
11	(8) Public Lands.—The term "public lands"
12	has the meaning given that term in section 103 of
13	the Federal Land Policy and Management Act of
14	1976 (43 U.S.C. 1702).
15	(9) Reforestation.—The term "reforest-
16	ation" means the act of renewing tree cover by es-
17	tablishing young trees through natural regeneration
18	natural regeneration with site preparation, or plant-
19	ing.
20	(10) Secretary.—The term "Secretary"
21	means the Secretary of Agriculture.
22	(11) Secretary concerned.—The term
23	"Secretary concerned" means—
24	(A) the Secretary of Agriculture, with re-
25	spect to National Forest System lands; and

1	(B) the Secretary of the Interior, with re-
2	spect to public lands.
3	(12) Secretaries.—The term "Secretaries"
4	means the Secretary of Agriculture and the Sec-
5	retary of Interior.
6	TITLE I—CARBON SEQUESTRA-
7	TION THROUGH REFOREST-
8	ATION ACTIVITIES
9	Subtitle A—Reforestation Goals
10	SEC. 101. NATIONAL FOREST CARBON STOCK TARGETS.
11	(a) In General.—Not later than 2 years after the
12	date of the enactment of this Act, the Secretary shall set
13	targets for increased forest carbon stock for the purposes
14	of sequestering and storing carbon while meeting other re-
15	source management objectives. Such targets shall—
16	(1) be based on the best available scientific in-
17	formation;
18	(2) consider both natural and artificial regen-
19	eration, with an emphasis on the regeneration of na-
20	tive species;
21	(3) be established at levels, consistent with
22	other statutory management purposes on Federal
23	lands, which represent the optimal feasible and sus-
24	tainable increase in the forest carbon stock private,
25	State, Tribal, and Federal landowners can achieve

1	by January 1, 2030, and every 10 years thereafter
2	through January 1, 2100;
3	(4) be informed by the report provided by the
4	Trillion Trees Task Force established in section 102;
5	(5) incorporate data from the forest inventory
6	and analysis program under section 3(e) of the For-
7	est and Rangeland Renewable Resources Research
8	Act of 1978 (16 U.S.C. 1642(e)) and other applica-
9	ble Federal agency data;
10	(6) be consistent with multiple use and sus-
11	tained yield requirements, policies, and objectives on
12	National Forest, State, Tribal, and other public or
13	private land;
14	(7) be consistent with other benefits related to
15	forest function and health including soil health and
16	productivity, wildlife habitat and biodiversity, im-
17	proved air and water quality, job creation, outdoor
18	recreation, and forest products and byproducts;
19	(8) be established at levels that account for—
20	(A) long-term and short-term carbon se-
21	questration and storage;
22	(B) forest carbon flux; and
23	(C) assessments of existing forested acres,
24	considering variations in landscape;

1	(9) incorporate input from State, Tribal, and
2	local stakeholders and members of the public; and
3	(10) be published in the Federal Register, to-
4	gether with a statement of the basis and justification
5	for such targets.
6	(b) NATURAL REGENERATION.—In this subsection,
7	the term "natural regeneration" means the establishment
8	of a tree or tree age class from natural seedling, sprouting,
9	or suckering, in accordance with the management objec-
10	tives of an applicable forest plan.
11	(c) Clarification.—Nothing in this section shall be
12	construed to establish any requirements with respect to
1.0	private landowners.
13	private failubiliers.
13 14	SEC. 102. TRILLION TREES TASK FORCE.
14	SEC. 102. TRILLION TREES TASK FORCE.
14 15	SEC. 102. TRILLION TREES TASK FORCE. (a) Establishment.—Not later than 6 months after
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14 15 16 17 18	SEC. 102. TRILLION TREES TASK FORCE. (a) ESTABLISHMENT.—Not later than 6 months after the date of the enactment of this section, the Secretary shall establish the Trillion Trees Task Force (in this section referred to as the "task force") to assist the Secretary
141516171819	SEC. 102. TRILLION TREES TASK FORCE. (a) ESTABLISHMENT.—Not later than 6 months after the date of the enactment of this section, the Secretary shall establish the Trillion Trees Task Force (in this section referred to as the "task force") to assist the Secretary with meeting the targets and purposes established under
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14 15 16 17 18 19 20 21 22	SEC. 102. TRILLION TREES TASK FORCE. (a) ESTABLISHMENT.—Not later than 6 months after the date of the enactment of this section, the Secretary shall establish the Trillion Trees Task Force (in this section referred to as the "task force") to assist the Secretary with meeting the targets and purposes established under section 101(a). (b) DUTIES OF THE TASK FORCE.— (1) REPORT.—Not later than 1 year after the

1	(A) recommendations for the national for-
2	est carbon stock targets established under sec-
3	tion 101;
4	(B) plant growth targets, including long-
5	term growth targets, required to achieve the na-
6	tional forest carbon stock targets established
7	under section 101, taking into account—
8	(i) forest carbon flux;
9	(ii) multiple use and sustained yield
10	requirements, policies, and objectives;
11	(iii) natural regeneration;
12	(iv) adverse natural and anthropo-
13	genic disturbances; and
14	(v) other factors impacting domestic
15	forestlands; and
16	(C) program and policy recommendations
17	designed to achieve the national forest carbon
18	stock targets established under section 101,
19	while—
20	(i) still maintaining sustainable levels
21	of board feet harvested from public lands;
22	(ii) promoting forest products mar-
23	kets, including for new and innovative for-
24	est products and byproducts; and

1	(iii) improving the natural regenera-
2	tion of public and private forests (with an
3	emphasis on the regeneration of native spe-
4	cies) through active forest management.
5	(2) Oversight.—Following the submission of
6	the report described in paragraph (1), the task force
7	shall provide continued oversight of the implementa-
8	tion of the national forest carbon stock targets, and
9	provide the Secretary with—
10	(A) yearly reports on the progress made
11	towards achieving the national forest carbon
12	stock targets established under section 101; and
13	(B) ongoing program and policy rec-
14	ommendations designed to achieve the national
15	forest carbon stock targets established under
16	section 101.
17	(3) Reports to congress.—The task force
18	shall—
19	(A) submit to Congress a copy of the re-
20	port under paragraph (1); and
21	(B) not later than 2 years after the report
22	under paragraph (1) is submitted to the Sec-
23	retary and Congress, and every 5 years there-
24	after, submit a report to Congress on the imple-

1	mentation of, and progress towards meeting,
2	the targets set under section 101.
3	(c) Membership.—
4	(1) Appointment.—The task force shall con-
5	sist of 15 ex officio members and 15 discretionary
6	members.
7	(A) Ex officio members.—The Presi-
8	dent shall appoint 15 representatives from the
9	executive branch.
10	(B) DISCRETIONARY MEMBERS.—The Sec-
11	retary shall appoint 1 discretionary member
12	from each of the following:
13	(i) A State land management agency.
14	(ii) A private forest landowner with
15	total land holdings of greater than
16	1,000,000 acres.
17	(iii) A private forest landowner with
18	total land holdings of less than 1,000,000
19	acres.
20	(iv) A family forest landowner.
21	(v) A pulp or paper manufacturer
22	which receives wood fiber directly or indi-
23	rectly from Federal timber for a portion of
24	their fiber supply.

1	(vi) A sawmill or engineered wood
2	producer which relies on the sale of Fed-
3	eral timber for at least 25 percent of their
4	fiber supply.
5	(vii) An energy company, cooperative,
6	pellet fuel producer, or utility which pro-
7	vides customers with energy at least par-
8	tially derived from the combustion of wood
9	biomass.
10	(viii) A land conservation nonprofit
11	with previous experience in collaborative
12	forestland restoration projects greater than
13	100,000 acres.
14	(ix) A Tribal land management agen-
15	cy or resource management organization
16	with previous experience managing Tribal
17	timberland.
18	(x) A wildlife conservation nonprofit
19	with previous experience in collaborative
20	forestland restoration projects greater than
21	100,000 acres.
22	(xi) An entity with experience in wild-
23	life habitat restoration projects less than
24	100,000 acres.

1	(xii) An urban or community resource
2	conservation organization, with previous
3	experience in urban and community refor-
4	estation projects.
5	(xiii) An organization with previous
6	experience in projects of any size that in-
7	crease public access or outdoor recreation
8	opportunities on National Forest System
9	lands.
10	(xiv) A company or organization with
11	experience in sustainable buildings or mass
12	timber construction.
13	(xv) An academic or scientific institu-
14	tion with experience researching forest car-
15	bon stock in domestic forests.
16	(2) Discretionary member terms.—
17	(A) APPOINTMENT AND REMOVAL.—Each
18	discretionary member appointed to the task
19	force under paragraph (1)(B) may be appointed
20	and removed at the discretion of the Secretary.
21	(B) Vacancy.—A discretionary member
22	that is removed under subparagraph (A) shall
23	be replaced not later than 6 months after such
24	removal.
25	(3) Quorum.—

1	(A) In general.—A quorum shall consist
2	of 10 ex officio members and 10 discretionary
3	members of the task force.
4	(B) Decisions.—Decisions of the task
5	force shall be made by majority vote, a quorum
6	being present.
7	(4) Preservation of public advisory sta-
8	TUS.—No individual may be appointed to the task
9	force as a discretionary member under paragraph
10	(1)(B) while serving as an officer or employee of the
11	Federal Government.
12	(5) Pay and expenses.—
13	(A) Compensation.—
14	(i) Federal employee members.—
15	All members of the task force who are offi-
16	cers or employees of the United States
17	shall serve without compensation in addi-
18	tion to that received for their services as
19	officers or employees of the United States.
20	(ii) Non-federal employee mem-
21	BERS.—All members of the task force not
22	described in clause (i) shall serve without
23	compensation.
24	(B) REIMBURSEMENT.—A member of the
25	task force may be reimbursed for travel and

- lodging incurred while attending a meeting of
 the task force or any other meeting of members
 approved for reimbursement by the task force
 in the same amounts and under the same conditions as Federal employees under section 5703
 of title 5, United States Code.
 - (C) Expenses.—The expenses of the task force that the Secretary determines to be reasonable and appropriate shall be paid by the Secretary.
- 11 ADMINISTRATIVE SUPPORT, TECHNICAL 12 SERVICES, AND STAFF SUPPORT.—The Secretary 13 shall make personnel of the Department of Agri-14 culture available to the task force for administrative 15 support, technical services, and staff support that 16 the Secretary determines necessary to carry out this 17 section.
- 18 (d) Federal Advisory Committee Act.—The 19 Federal Advisory Committee Act (5 U.S.C. App.) shall not 20 apply to the task force.
- 21 SEC. 103. PHILANTHROPIC REFORESTATION ADVISORY
 22 COUNCIL.
- 23 (a) ESTABLISHMENT.—There is hereby established 24 the Philanthropic Reforestation Advisory Council (in this

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1	section referred to as the "Advisory Council") to advise
2	the Secretary on—
3	(1) increasing private charitable investment in
4	reforestation and afforestation activities; and
5	(2) tracking private charitable reforestation and
6	afforestation pledges and metrics.
7	(b) Duties of the Advisory Council.—
8	(1) Report.—Not later than 1 year after the
9	date of the enactment of this section, the Advisory
10	Council shall submit to the Secretary a report that
11	includes recommendations for—
12	(A) increasing and encouraging private
13	charitable investments in reforestation and
14	afforestation activities; and
15	(B) developing a platform to track private
16	charitable tree planting pledges and metrics.
17	(2) Consultation.—The Secretary shall con-
18	sult with the Advisory Council when developing the
19	list of projects to be funded from the Trillion Trees
20	Challenge Fund established under section 104.
21	(3) Reports to congress.—The Advisory
22	Council shall annually submit to Congress—
23	(A) a copy of the report under paragraph
24	(1); and

1	(B) a list of projects the Advisory Council
2	recommended be funded under paragraph (2)
3	and whether or not those projects were funded.
4	(e) Membership.—
5	(1) Appointment.—The Advisory Council shall
6	consist of 2 ex officio members and 15 discretionary
7	members.
8	(A) Ex officio members.—The ex officio
9	members of the Advisory Council, or their des-
10	ignees, are—
11	(i) the Secretary of Agriculture; and
12	(ii) the Secretary of the Interior.
13	(B) DISCRETIONARY MEMBERS.—The Sec-
14	retary shall appoint discretionary members
15	from each of the following:
16	(i) One from each of not more than 5
17	companies or corporations that have made
18	public charitable tree planting pledges.
19	(ii) One from each of not more than
20	5 philanthropic organizations with experi-
21	ence in financing reforestation and
22	afforestation activities.
23	(iii) One from each of not more than
24	5 non-profit organizations with experience
25	in reforestation and afforestation activities.

1	(2) DISCRETIONARY MEMBER TERMS.—Each
2	discretionary member appointed to the Advisory
3	Council under paragraph (1)(B) may be appointed
4	and removed at the discretion of the Secretary.
5	(3) Quorum.—
6	(A) In general.—A quorum shall consist
7	of 12 members of the Advisory Council.
8	(B) Decisions.—Decisions of the Advi-
9	sory Council shall be made by majority vote, a
10	quorum being present.
11	(4) Preservation of public advisory sta-
12	TUS.—No individual may be appointed to the Advi-
13	sory Council as a discretionary member under para-
14	graph (1)(B) while serving as an officer or employee
15	of the Federal Government.
16	(5) Pay and expenses.—
17	(A) Compensation.—
18	(i) Federal employee members.—
19	All members of the Advisory Council who
20	are officers or employees of the United
21	States shall serve without compensation in
22	addition to that received for their services
23	as officers or employees of the United
24	States.

- 1 (ii) Non-federal employee mem2 Bers.—All members of the Advisory Coun3 cil not described in clause (i) shall serve
 4 without compensation.
 - (B) Reimbursement.—A member of the Advisory Council may be reimbursed for travel and lodging incurred while attending a meeting of the Advisory Council or any other meeting of members approved for reimbursement by the Advisory Council in the same amounts and under the same conditions as Federal employees under section 5703 of title 5, United States Code.
 - (C) EXPENSES.—The expenses of the Advisory Council that the Secretary determines to be reasonable and appropriate shall be paid by the Secretary.
 - (6) Administrative support, technical services, and staff support support, technical services, and staff support that the Secretary determines necessary to carry out this section.

1	(7) Federal advisory committee act.—The
2	Federal Advisory Committee Act (5 U.S.C. App.)
3	shall not apply to Advisory Council.
4	SEC. 104. TRILLION TREES CHALLENGE FUND.
5	(a) Establishment.—
6	(1) IN GENERAL.—There is established in the
7	Treasury a fund to be known as the "Trillion Trees
8	Challenge Fund''.
9	(2) Deposits.—For each of fiscal years 2021
10	through 2030, there is appropriated, out of any
11	money in the Treasury not otherwise appropriated,
12	\$10,000,000, which shall be deposited into the Tril-
13	lion Trees Challenge Fund and remain available
14	until expended.
15	(3) Use of funds.—Amounts deposited into
16	the Trillion Trees Challenge Fund—
17	(A) shall be used by the Secretary to make
18	grants, in consultation with the Philanthropic
19	Reforestation Advisory Council, to eligible enti-
20	ties to carry out eligible projects described in
21	subsection (b)(1); and
22	(B) may only be used if matched by the el-
23	igible entity carrying out the eligible project, on
24	at least a 1-to-1 basis, by non-Federal funds.
25	(4) Public donations.—

1	(A) In general.—For purposes of mak-
2	ing grants under this section, the Secretary
3	may accept cash or in-kind donations.
4	(B) Credits to fund.—Any cash dona-
5	tion accepted pursuant to subparagraph (A)
6	shall be credited to, and form a part of, the
7	Fund.
8	(b) Eligible Projects.—
9	(1) In general.—An eligible project described
10	in this paragraph is an activity carried out by an eli-
11	gible entity related to reforestation or conserving,
12	managing, maintaining, and monitoring trees on
13	State, Tribal, municipal, or private lands for the
14	purpose of increasing forest carbon stock.
15	(2) List.—The Secretary shall—
16	(A) annually develop a list of eligible
17	projects to be funded from the Trillion Trees
18	Challenge Fund, in consultation with the Phil-
19	anthropic Reforestation Advisory Council; and
20	(B) submit the list developed pursuant to
21	subparagraph (A) to—
22	(i) the Committees on Agriculture,
23	Nutrition, and Forestry and Energy and
24	Natural Resources of the Senate; and

1	(ii) the Committees on Agriculture
2	and Natural Resources of the House of
3	Representatives; and
4	(C) publish such list annually in the Fed-
5	eral Register.
6	(3) UPDATES.—The Secretary may add an eli-
7	gible project to the list described in subparagraph
8	(A) of paragraph (2) and submit such addition in
9	accordance with subparagraph (B) of such para-
10	graph.
11	(4) Proposals.—To be eligible to receive fund-
12	ing under this section, an eligible entity shall submit
13	to the Secretary a proposal at such time, in such
14	manner, and containing such information as the Sec-
15	retary may require.
16	(c) SUMMARY TO CONGRESS.—The Secretary shall
17	include in the budget materials submitted to Congress in
18	support of the President's annual budget request (sub-
19	mitted to Congress pursuant to section 1105 of title 31,
20	United States Code) for each fiscal year a summary of
21	the status and funding of eligible projects under this sec-
22	tion.
23	(d) Definitions.—In this section—
24	(1) ELIGIBLE ENTITY.—The term "eligible enti-
25	ty'' means—

1	(A) a State, local, or Tribal government;
2	(B) a non-profit organization or edu-
3	cational institution;
4	(C) an individual; or
5	(D) other non-Federal entities, as deter-
6	mined by the Secretary.
7	(2) Philanthropic reforestation advisory
8	COUNCIL.—The term "Philanthropic Reforestation
9	Advisory Council" means to the Advisory Council es-
10	tablished under section 103 of the Trillion Trees
11	Act.
12	SEC. 105. RENEWABLE RESOURCE ASSESSMENT UPDATE
13	AND LIFECYCLE ANALYSIS.
14	(a) Renewable Resource Assessment.—Section
	(a) RENEWABLE RESOURCE ASSESSMENT.—Section 3 of the Forest and Rangeland Renewable Resources Plan-
15	
15	3 of the Forest and Rangeland Renewable Resources Plan-
15 16	3 of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1601) is amended—
15 16 17	3 of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1601) is amended— (1) in subsection (a)—
15 16 17 18	3 of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1601) is amended— (1) in subsection (a)— (A) in paragraph (5), by striking "and" at
15 16 17 18 19	3 of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1601) is amended— (1) in subsection (a)— (A) in paragraph (5), by striking "and" at the end;
15 16 17 18 19 20	3 of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1601) is amended— (1) in subsection (a)— (A) in paragraph (5), by striking "and" at the end; (B) by striking paragraph (6) and insert-
15 16 17 18 19 20 21	3 of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1601) is amended— (1) in subsection (a)— (A) in paragraph (5), by striking "and" at the end; (B) by striking paragraph (6) and inserting the following:
15 16 17 18 19 20 21 22	3 of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1601) is amended— (1) in subsection (a)— (A) in paragraph (5), by striking "and" at the end; (B) by striking paragraph (6) and inserting the following: "(6) an analysis of the rural and urban forestry

1	forest carbon stock (as defined in section 2 of the
2	Trillion Trees Act) in domestic forests; and"; and
3	(C) by adding at the end the following:
4	"(7) an analysis of the forest carbon stock (as
5	defined in section 2 of the Trillion Trees Act) poten-
6	tial of domestic forests based upon the lifecycle anal-
7	ysis established under section 105(c) of the Trillion
8	Trees Act.";
9	(2) in subsection (c)—
10	(A) in paragraph (2), by striking "and" at
11	the end;
12	(B) in paragraph (3), by striking the pe-
13	riod at the end and inserting "; and"; and
14	(C) by adding at the end the following:
15	"(4) the potential to increase forest carbon
16	stock (as defined in section 2 of the Trillion Trees
17	Act) through the utilization of harvested wood prod-
18	ucts, including recommendations to Congress for ac-
19	tions which would lead to increased forest carbon
20	stock through the utilization of such materials.";
21	and
22	(3) in the first subsection (d), by inserting "and
23	other stakeholders" after "agencies".

1	(b) Renewable Resource Program.—Section 4 of
2	the Forest and Rangeland Renewable Resources Planning
3	Act of 1974 (16 U.S.C. 1602) is amended—
4	(1) in the first sentence—
5	(A) by inserting "Nation's forests, includ-
6	ing the" before "National Forest System";
7	(B) by inserting "and Congress" after
8	"transmitted to the President"; and
9	(C) by inserting "and development pro-
10	grams" after "for research";
11	(2) by striking the "The Program shall include,
12	but not be limited to" and inserting "The Program
13	shall be prepared and transmitted to the President
14	and Congress not later than 2 years after the date
15	of the enactment of the Trillion Trees Act and every
16	2 years thereafter, and shall include, but not be lim-
17	ited to";
18	(3) by amending paragraph (1) to read as fol-
19	lows:
20	"(1) an inventory of specific investment needs
21	and opportunities for both public and private pro-
22	gram investments that—
23	"(A) differentiates between—

1	"(i) activities which are of a capital
2	nature and those which are of an oper-
3	ational nature; and
4	"(ii) investments required to support
5	existing policies and programs and those
6	required to create and implement new poli-
7	cies and programs; and
8	"(B) identifies—
9	"(i) Federal and State policies that, if
10	left unchanged in the succeeding 50 years,
11	would create undesirable impacts on for-
12	ests and communities; and
13	"(ii) alternatives to the policies de-
14	scribed in clause (i) that if implemented in
15	the 10 succeeding years would mitigate
16	such undesirable impacts;";
17	(4) in paragraph (2)—
18	(A) by inserting "and policy options" after
19	"Program outputs";
20	(B) by inserting "or State governments"
21	after "Federal Government";
22	(5) in paragraph (3), by inserting "and imple-
23	mentation of identified policy options" after "Pro-
24	gram opportunities";
25	(6) in paragraph (5)—

1	(A) in the matter preceding subparagraph
2	(A), by inserting "and policy options" before
3	"which";
4	(B) in subparagraph (B), by inserting
5	"and services" after "products";
6	(C) in subparagraph (D), by striking
7	"state national goals" and inserting "State na-
8	tional goals that the policy options are intended
9	to achieve and";
10	(D) in subparagraph (E), by striking
11	"and" at the end;
12	(E) in subparagraph (F)—
13	(i) by inserting "the health and resil-
14	iency of forests, forest carbon stock (as de-
15	fined in section 2 of the Trillion Trees
16	Act), and" before "forest and rangeland";
17	and
18	(ii) by striking the period and insert-
19	ing "; and"; and
20	(F) by adding at the end the following:
21	"(G) account for the effects of trees in
22	urban and community areas in addition to for-
23	ests in rural areas.".
24	(c) Lifecycle Analysis.—

1	(1) Lifecycle storage model.—As a part of
2	the assessment established under section 3 of the
3	Forest and Rangeland Renewable Planning Act of
4	1974 (16 U.S.C. 1601) the Secretary shall develop
5	interdisciplinary computational models using all
6	available data to—
7	(A) evaluate the lifecycle forest carbon
8	stock potential associated with domestic
9	forestland; and
10	(B) provide projections, scenario planning
11	and policy options associated with such models
12	(2) Considerations.—In developing the model
13	under paragraph (1), the Secretary shall consider—
14	(A) the best available science;
15	(B) data collected through the forest in-
16	ventory and analysis program under section
17	3(e) of the Forest and Rangeland Renewable
18	Resources Research Act of 1978 (16 U.S.C.
19	1642(e));
20	(C) forest carbon stock and the rate of car-
21	bon storage and sequestration in forest carbon
22	pools;
23	(D) the net carbon storage and sequestra-
24	tion of active forest management:

1	(E) the rate of carbon storage and seques-
2	tration in varying forests based on the climate
3	the forest is located in, the average age of
4	stands, and rate of tree mortality;
5	(F) the net amount of carbon released
6	through catastrophic wildfire, disease and insect
7	infestations, and other disturbances that result
8	in tree mortality;
9	(G) the net carbon stored and sequestered
10	through the manufacture of harvested wood
11	products;
12	(H) the net carbon stored and sequestered
13	through a sustainable cycle of harvest and re-
14	generation;
15	(I) forest carbon flux; and
16	(J) other factors as determined by the Sec-
17	retary.
18	(3) Validation program.—
19	(A) IN GENERAL.—The Secretary shall
20	carry out a program for validation and inde-
21	pendent testing of the lifecycle models devel-
22	oped under paragraph (1).
23	(B) Requirements.—In carrying out the
24	validation program under subparagraph (A),
25	the Secretary shall—

1	(i) regularly perform retrospective as-
2	sessments comparing model predictions to
3	field data on the carbon stored in forests;
4	and
5	(ii) require independent evaluation
6	and comparison of lifecycle models devel-
7	oped under paragraph (1) against existing
8	models, and enable empirical testing of
9	hypotheses regarding the net effects on
10	land and atmospheric carbon stocks and
11	other greenhouse gas impacts.
12	(4) Report.—Not later than 2 years after the
13	date of enactment of this Act, and every 2 years
14	thereafter, the Secretary shall submit to Congress a
15	report that includes—
16	(A) the findings of the analysis conducted
17	using the model developed under paragraph (1);
18	(B) recent trends and current forest car-
19	bon stock, forest carbon pools, and forest car-
20	bon flux as well as projections of forest carbon
21	stock, forest carbon pools, and forest carbon
22	flux for the succeeding 50 years; and
23	(C) scenario planning for Federal, State,
24	Tribal, local, and private landowners that ana-

1	lyzes different policy options and their associ-
2	ated effects on lifecycle forest carbon stock.
3	SEC. 106. FOREST INVENTORY AND ANALYSIS.
4	(a) 5-Year Reports.—Section 3(e)(3) of the Forest
5	and Rangeland Renewable Resources Research Act of
6	1978 (16 U.S.C. 1642(e)(3)) is amended—
7	(1) in subparagraph (B), by striking "and" at
8	the end;
9	(2) in subparagraph (C), by inserting ", forest
10	carbon," after "forest health conditions and trends";
11	(3) in subparagraph (C), by striking the period
12	and inserting "paragraph; and"; and
13	(4) by adding at the end the following:
14	"(D) demonstrates the Agency's efforts
15	to—
16	"(i) conduct a strategic national forest
17	inventory by measuring a statistically de-
18	signed consistent historical series of field
19	plots in combination with advanced tech-
20	nology to improve data, information, and
21	estimates of precision; and
22	"(ii) use advanced geospatial tech-
23	nologies to improve such area and volume
24	estimates, especially for sub-State regions
25	and smaller areas "

1	(b) Memoranda of Understanding.—In pre-
2	paring, publishing, and making available reports under
3	section 3(e)(3) of the Forest and Rangeland Renewable
4	Resources Research Act of 1978 (16 U.S.C. 1642(e)(3)),
5	as amended by subsection (a), the Secretary may enter
6	into memorandums of understanding with other Federal
7	agencies or departments to improve the use and integra-
8	tion of advanced remote sensing and geospatial tech-
9	nologies in the forest inventory and analysis program
10	under such section.
11	SEC. 107. NATIONAL FOREST FOUNDATION ACTIVITIES.
12	(a) Adding Forest Carbon Stock to the Pur-
13	POSES OF THE NATIONAL FOREST FOUNDATION.—The
14	National Forest Foundation Act (16 U.S.C. 583j et seq.)
15	is amended—
16	(1) in section 402(b)—
17	(A) in paragraph (2), by striking "and" at
18	the end;
19	(B) in paragraph (3), by striking the pe-
20	riod at the end and inserting a semicolon; and
21	(C) by adding at the end the following:
22	"(4) encourage, accept, and administer private
23	gifts of money and of real and personal property for
24	the benefit of, or in connection with, the targets for

1 optimizing forest carbon stock established under sec-2 tion 101 of the 'Trillion Trees Act'; and "(5) carry out the National Medal for Forest 3 4 Restoration under section 410."; (2) in section 405— 5 (A) in subsection (a), by striking "410" 6 and inserting "412"; and 7 (B) in subsection (b), by striking "410" 8 9 and inserting "412"; 10 (3) by redesignating section 410 as section 412; 11 and 12 (4) by inserting after section 409 the following: 13 "SEC. 410. NATIONAL MEDAL FOR FOREST RESTORATION. 14 "(a) Establishment.—The Foundation shall, in 15 consultation with the Secretary of Agriculture, establish an award to be known as the 'National Medal for Forest 16 Restoration' to recognize outstanding contributions in domestic reforestation (as defined in section 2 of the Trillion 18 Trees Act) activities carried out by individuals, commu-19 20 nities, nonprofit organizations, and corporations. 21 "(b) Number of Awards.—The Foundation shall 22 award the National Medal for Forest Restoration at least 23 once a year. 24 "(c) Levels of Awards.—The Foundation shall, in consultation with Secretary of Agriculture, establish mul-

tiple levels of awards reflecting the considerations speci-2 fied in subsection (e). 3 "(d) Administration of Award.—The Foundation shall administer the awards under this section, including 5 by— 6 "(1) developing a website and media presence 7 to highlight recipients of such awards; and 8 "(2) tracking the contribution of such recipients 9 towards the targets for increased forest carbon stock 10 established under section 101 of the Trillion Trees 11 Act. 12 "(e) Considerations.—In awarding the National Medal for Forest Restoration under this section to an entity described in subsection (a), the Foundation shall con-14 sider— 15 "(1) the number of acres planted or restored by 16 17 such entity; 18 "(2) the total increase in forest carbon stock 19 (as defined in section 2 of the Trillion Trees Act) re-20 sulting from reforestation (as defined in section 2 of 21 the Trillion Trees Act) activities of such entity; 22 "(3) the educational impact of the reforestation 23 (as defined in section 2 of the Trillion Trees Act) 24 activities of such entity; and

1	"(4) the total value of any donations by such
2	entity to the Foundation.".
3	(b) Fifth Grade Forestry Challenge.—The
4	National Forest Foundation Act (16 U.S.C. 583j et seq.),
5	as amended by subsection (a), is further amended by in-
6	serting after section 410 the following:
7	"SEC. 411. FIFTH GRADE FORESTRY CHALLENGE.
8	"(a) Establishment.—The Foundation shall estab-
9	lish an educational grant program, in consultation with
10	the Secretary, to be known as the '5th Grade Forestry
11	Challenge' to make grants to eligible recipients to—
12	"(1) provide 5th grade students with a seedling
13	to plant;
14	"(2) educate students about forestry, forest
15	management, active stewardship, and carbon stor-
16	age; and
17	"(3) encourage, accept, and administer private
18	gifts of money, technical expertise, and of real and
19	personal property for the benefit of this program.
20	"(b) Eligible Recipients.—The following entities
21	are eligible to receive a grant under this section:
22	"(1) A local educational agency.
23	"(2) A nonprofit entity that the Secretary de-
24	termines has a demonstrated history of community

1	engagement and education on natural resource
2	issues.
3	"(3) Other recipients as the Secretary deter-
4	mines to be appropriate.
5	"(c) Coordination.—In carrying out the program
6	required by this section, the Foundation may coordinate
7	on an ongoing basis with appropriate Federal, State, Trib-
8	al, and local resource management departments, local edu-
9	cational agencies, nonprofit organizations, private citizens
10	and corporations to—
11	"(1) identify lands suitable for reforestation (as
12	defined in section 2 of the Trillion Trees Act);
13	"(2) encourage, accept, and administer private
14	gifts of money, technical expertise, and of real and
15	personal property for the benefit of such program;
16	"(3) manage and maintain reforested lands
17	and
18	"(4) further educate students and the public
19	about forestry and forest carbon stock (as defined in
20	section 2 of the Trillion Trees Act).
21	"(d) REPORT REQUIRED.—Not later than 2 years
22	after the date on which the Foundation establishes the
23	grant program under this section, the Secretary shall sub-

24 mit to the relevant committees a report on the determina-

25 tion of the Secretary as to whether the grant program is

1	a financially effective means to educate students in the
2	fields described in subsection (a)(2).
3	"(e) Definitions.—In this subsection:
4	"(1) LOCAL EDUCATIONAL AGENCY.—The term
5	'local educational agency' has the meaning given
6	that term in section 8101 of the Elementary and
7	Secondary Education Act of 1965 (20 U.S.C. 7801).
8	"(2) Relevant committees.—The term 'rel-
9	evant committees' means—
10	"(A) the Committee on Natural Resources
11	of the House of Representatives;
12	"(B) the Committee on Agriculture of the
13	House of Representatives;
14	"(C) the Committee on Energy and Nat-
15	ural Resources of the Senate; and
16	"(D) the Committee on Agriculture, Nutri-
17	tion, and Forestry of the Senate.".
18	Subtitle B—Regeneration
19	SEC. 111. REFORESTATION PROGRAMS.
20	(a) National Forest Cover Policy.—
21	(1) In general.—Section 3 of the Forest and
22	Rangeland Renewable Resources Planning Act of
23	1974 (16 U.S.C. 1601), as amended by section 105,
24	is further amended—

1	(A) by redesignating subsection (e) as sub-
2	section (f);
3	(B) by redesignating the second subsection
4	(d) (relating to the policy of Congress regarding
5	forested land in the National Forest System) as
6	subsection (e); and
7	(C) in subsection (e), as so redesignated—
8	(i) in paragraph (2)—
9	(I) in the first sentence—
10	(aa) by striking "eight years
11	following the enactment of this
12	subsection" and inserting "10
13	years following the date of enact-
14	ment of the 'Trillion Trees Act'";
15	and
16	(bb) by striking "eight-year
17	period" and inserting "10-year
18	period";
19	(II) in the second sentence, by
20	striking "such eight-year period" and
21	inserting "the 10-year period"; and
22	(III) in the third sentence, by
23	striking "1978" and inserting
24	"2021";

1	(ii) by redesignating paragraph (3) as
2	paragraph (4);
3	(iii) in the first sentence of paragraph
4	(4), as so redesignated, by striking "sub-
5	section (d)" and inserting "subsection";
6	and
7	(iv) by inserting after paragraph (2)
8	the following:
9	"(3) Reforestation prioritization.—
10	"(A) Reforestation priority.—
11	"(i) In general.—In carrying out
12	this subsection, the Secretary shall give
13	priority to projects on the priority list de-
14	scribed in clause (ii).
15	"(ii) Ranked priority list.—The
16	Chief of the Forest Service shall, based on
17	recommendations from regional foresters,
18	create a ranked priority list of projects
19	that—
20	"(I) primarily take place on pri-
21	ority land;
22	"(II) promote reforestation (as
23	defined in section 2 of the Trillion
24	Trees Act) on priority land;

1	"(III) deliver measurable
2	progress and cost-effective results;
3	"(IV) increase forest carbon
4	stock (as defined in section 2 of the
5	Trillion Trees Act) in a sustainable
6	manner; and
7	"(V) provide additional benefits
8	relating to forest function and health,
9	soil health and productivity, wildlife
10	habitat and biodiversity, improved air
11	and water quality, job creation, en-
12	hanced outdoor recreation, and forest
13	products and byproducts.
14	"(B) Priority Land Defined.—In this
15	paragraph, the term 'priority land' means Na-
16	tional Forest System land that, due to an un-
17	planned adverse disturbance (including a wild-
18	fire, ice storm, blowdown, flooding, insect infes-
19	tation, disease, volcanic activity, or seismic
20	event)—
21	"(i) does not meet the conditions for
22	appropriate forest cover described in para-
23	graph (1);
24	"(ii) requires reforestation (as defined
25	in section 2 of the Trillion Trees Act) to

1	meet the objectives of an applicable forest
2	plan; and
3	"(iii) is unlikely to experience natural
4	regeneration without assistance.".
5	(2) Conforming amendments.—
6	(A) Cooperative forestry assistance
7	ACT OF 1978.—Section 9 of the Cooperative
8	Forestry Assistance Act of 1978 (16 U.S.C.
9	2105) is amended in the matter following para-
10	graph (5) of subsection (g)—
11	(i) by striking "section 3(d)" and in-
12	serting "subsection (e) of section 3"; and
13	(ii) by striking "1601(d)" and insert-
14	ing "1601".
15	(B) Reforestation trust fund.—Sec-
16	tion 303 of the Act of October 14, 1980 (Public
17	Law 96–451; 16 U.S.C. 1606a) is amended in
18	subsection (d)(1)—
19	(i) by striking "section 3(d)" and in-
20	serting "subsection (e) of section 3"; and
21	(ii) by striking "1601(d)" and insert-
22	ing "1601".
23	(C) Stewardship end result con-
24	TRACTING PROJECTS.—Section 604(c) of the
25	Healthy Forests Restoration Act of 2003 (16

- 1 U.S.C. 6591c(c)) is amended by adding at the
- 2 end the following:
- 3 "(8) Reforestation (as defined in section 2 of
- 4 the Trillion Trees Act), except the Chief shall give
- 5 priority to reforestation projects in accordance with
- 6 the priorities specified in subsection (e)(3)(A)(ii) of
- 7 section 3 of the Forest and Rangeland Renewable
- 8 Resources Planning Act of 1974 (16 U.S.C. 1601).".
- 9 (b) Target Year for National Forest Sys-
- 10 TEM.—Section 9 of the Forest and Rangeland Renewable
- 11 Resources Planning Act of 1974 (16 U.S.C. 1607) is
- 12 amended by striking "2000" and inserting "2031".
- 13 SEC. 112. REFORESTATION TRUST FUND.
- 14 Section 303 of the Act of October 14, 1980 (Public
- 15 Law 96–451; 16 U.S.C. 1606a) is amended in subsection
- 16 (b)(2), by striking "\$30,000,000" and inserting
- 17 "\$180,000,000".
- 18 SEC. 113. SOLVING SHORTAGES FOR SEEDLINGS.
- 19 (a) IN GENERAL.—Not later than 1 year after the
- 20 date of the enactment of this section, the Secretary, acting
- 21 through the Chief of the Forest Service, shall develop and
- 22 implement a national strategy to increase the capacity of
- 23 Federal, State, Tribal, and private nurseries to address
- 24 the nationwide shortage of tree seedlings.

1	(b) Elements.—The strategy required under sub-
2	section (a) shall—
3	(1) be based on the best available science and
4	data; and
5	(2) identify and address—
6	(A) regional seedling shortages of bareroot
7	and container tree seedlings;
8	(B) regional reforestation opportunities
9	and the seedling supply necessary to fulfill such
10	opportunities;
11	(C) opportunities to enhance seedling di-
12	versity and close gaps in seed inventories; and
13	(D) barriers to expanding, enhancing, or
14	creating new infrastructure to increase nursery
15	capacity.
16	(c) Federal Nurseries.—Section 2 of the Act of
17	June 9, 1930 (16 U.S.C. 576a; commonly known as the
18	"Knutson-Vandenberg Act"), is amended by striking
19	"each fiscal year after year ending June 30, 1934, not
20	to exceed \$400,000," and inserting "each of fiscal years
21	2021 through 2030, \$25,000,000,".
22	(d) Loan Program for State, Tribal, and Pri-
23	VATE NURSERIES.—
24	(1) In General.—The Secretary shall carry
25	out a loan program to make or guarantee qualified

1	nursery loans to eligible entities under this sub-
2	section.
3	(2) APPLICATION.—To be eligible to receive a
4	qualified nursery loan or loan guarantee under this
5	subsection, an eligible entity shall submit to the Sec-
6	retary an application at such time, in such manner,
7	and containing such information as the Secretary
8	may require, including a plan to maintain the ge-
9	netic and physical quality of seedlings of the eligible
10	entity.
11	(3) Priority.—In making qualified nursery
12	loans or loan guarantees under this subsection, the
13	Secretary shall give priority to eligible entities
14	that—
15	(A) are small businesses, in particular
16	small businesses located in rural areas;
17	(B) create or support jobs, particularly in
18	rural areas; and
19	(C) serve regions with high demand for re-
20	forestation.
21	(4) QUALIFIED NURSERY PROJECT.—A loan or
22	loan guarantee under this subsection may only be
23	used to carry out a qualified nursery project to—
24	(A) develop, expand, enhance, or improve
25	nursery capacity or infrastructure;

1	(B) establish nurseries; or
2	(C) develop or implement quality control
3	measures at nurseries.
4	(5) Loan and Loan guarantee terms.—
5	(A) Amount guaranteed.—The portion
6	of a loan that the Secretary may guarantee
7	under this subsection may not be greater than
8	80 percent of the principal amount of such
9	loan.
10	(B) Repayment.—The period of repay-
11	ment for a loan made under this subsection
12	shall not exceed 20 years.
13	(6) Administrative provisions.—
14	(A) LIMITATION ON AUTHORITY.—The
15	total amount of qualified nursery loans made or
16	guaranteed under this subsection by the Sec-
17	retary may not exceed \$1,000,000,000.
18	(B) DISTRIBUTION.—The Secretary shall
19	ensure, to the maximum extent practicable, that
20	loans made or guaranteed under this subsection
21	are distributed across diverse geographic re-
22	gions.
23	(7) Definitions.—In this subsection:
24	(A) ELIGIBLE ENTITY.—The term "eligible
25	entity" means—

1	(i) a State, Tribal, or local govern-
2	ment; or
3	(ii) a domestic private, non-profit, or
4	cooperative organization.
5	(B) Nursery.—The term "nursery"
6	means a State, Tribal, or local government or
7	privately-owned facility that grows, stores, ex-
8	tracts, or monitors bareroot or container tree
9	seedlings.
10	(C) QUALIFIED NURSERY LOAN.—The
11	term "qualified nursery loan" means a low-in-
12	terest loan, the proceeds of which are used to
13	cover the costs to the borrower of carrying out
14	a qualified nursery project described in para-
15	graph (4).
16	SEC. 114. HEALTHY FOREST RESERVE PROGRAM.
17	(a) Establishment.—Section 501(a) of the Healthy
18	Forests Restoration Act of 2003 (16 U.S.C. 6571(a)) is
19	amended—
20	(1) in paragraph (3), by striking "and" at the
21	end;
22	(2) in paragraph (4), by striking the period at
23	the end and inserting "; and; and
24	(3) by adding at the end the following:

1	"(5) to promote the management and conserva-
2	tion of existing forests and regeneration of addi-
3	tional trees in pursuit of the targets for increased
4	forest carbon stock established under section 101 of
5	the Trillion Trees Act.".
6	(b) Enrollment Priority.—Section 502(f)(1) of
7	the Healthy Forests Restoration Act of 2003 (16 U.S.C.
8	6572) is amended to read as follows:
9	"(1) In General.—The Secretary of Agri-
10	culture shall give priority to the enrollment of land
11	that—
12	"(A) provides the greatest conservation
13	benefit to—
14	"(i) primarily, species listed as endan-
15	gered or threatened under section 4 of the
16	Endangered Species Act of 1973 (16
17	U.S.C. 1533); and
18	"(ii) secondarily, species that—
19	"(I) are not listed as endangered
20	or threatened under section 4 of the
21	Endangered Species Act of 1973 (16
22	U.S.C. 1533); but
23	"(II)(aa) are candidates for such
24	listing, State-listed species, or special
25	concern species; or

1	"(bb) are deemed a species of
2	greatest conservation need under a
3	State wildlife action plan; or
4	"(B) promotes the restoration of marginal
5	farmland or degraded forestland into healthy
6	forest ecosystems.".
7	(c) Restoration Plans.—Section 503(b)(4) of the
8	Healthy Forests Restoration Act of 2003 (16 U.S.C
9	6573(b)) is amended to read as follows:
10	"(4) Practices to increase forest carbon stock
11	(as defined in section 2 of the Trillion Trees Act)
12	over a period of at least 20 years, including through
13	reforestation of degraded forestland and
14	afforestation (as such terms are defined in such sec-
15	tion) of marginal farmland.".
16	(d) Cost Sharing.—Section 504 of the Healthy
17	Forests Restoration Act of 2003 (16 U.S.C. 6574) is
18	amended by adding at the end the following:
19	"(e) Cost-Share Permitted.—In the case of land
20	enrolled in the healthy forest reserve program for the pur-
21	pose of promoting the restoration of marginal farmland
22	or degraded forestland into healthy forest ecosystems, the
23	Secretary of Agriculture may pay up to 75 percent for the
24	cost of practices determined necessary for restoration or

1	afforestation (as defined in section 2 of the Trillion Trees
2	Act) of such land.".
3	SEC. 115. FORESTRY EDUCATION AND WORKFORCE DEVEL
4	OPMENT GRANT PROGRAM.
5	(a) In General.—The Secretary shall establish a
6	competitive grant program to make grants to eligible insti-
7	tutions to carry out forestry education and workforce de-
8	velopment programs to prepare students for careers in for-
9	estry.
10	(b) Proposal.—To be eligible to receive a grant
11	under this section, an eligible institution shall submit to
12	the Secretary a proposal at such time, in such manner
13	and containing such information as the Secretary may re-
14	quire.
15	(c) Equitable Awards.—For each fiscal year for
16	which grants are awarded under this section, the amount
17	of grant funds awarded to eligible institutions described
18	in paragraph (1) of subsection (f) shall be equal to the
19	amount of grant funds awarded to eligible institutions de-
20	scribed in paragraphs (2) and (3) of such subsection.
21	(d) Use of Grant Funds.—
22	(1) IN GENERAL.—Grants made under this sec-
23	tion shall be used to—
24	(A) award scholarships to students enrolled
25	in the eligible institution and pursuing degrees

1	in forestry, including students historically
2	underrepresented in the field of forestry;
3	(B) expand, enhance, or improve forestry
4	educational capacities of the eligible institution,
5	including libraries, curriculum, faculty, and sci-
6	entific instrumentation;
7	(C) recruit and retain—
8	(i) secondary school or undergraduate
9	students to pursue certifications in forestry
10	or acquire training in technical forestry
11	skills, including students historically
12	underrepresented in the field of forestry; or
13	(ii) undergraduate and graduate stu-
14	dents to pursue degrees in forestry, includ-
15	ing students historically underrepresented
16	in the field of forestry;
17	(D) design and develop resources or pro-
18	grams that prepare students enrolled in the eli-
19	gible institution for careers in forestry, includ-
20	ing internship and apprenticeship programs;
21	(E) provide hands-on training and research
22	opportunities for such students; or
23	(F) carry out any other activity the Sec-
24	retary determines appropriate.

1	(2) Clarification of forestry edu-
2	CATION.—For purposes of paragraph (1), the terms
3	"degrees in forestry", "certifications in forestry",
4	and "training in technical forestry skills" include de-
5	grees, certifications, and training in forestry, forest
6	sciences, natural resources management, or other re-
7	lated educational disciplines.
8	(e) Payment of Non-Federal Share.—As a con-
9	dition of receiving a grant under this section, the Sec-
10	retary shall require the recipient of the grant to provide
11	funds or in-kind support from non-Federal sources in an
12	amount that is specified by the Secretary and based on
13	assessed institutional needs.
14	(f) Eligible Institution Defined.—In this sec-
15	tion, the term "eligible institution" means—
16	(1) a land grant college or university, including
17	an institution eligible to receive funding under—
18	(A) the Act of July 2, 1862;
19	(B) the Act of August 30, 1890, including
20	Tuskegee University;
21	(C) Public Law 87–788 (commonly known
22	as the "McIntire-Stennis Act of 1962"); or
23	(D) the Equity in Educational Land-Grant
24	Status Act of 1994 (7 U.S.C. 301 note);

1	(2) a community college or area career and
2	technical education school (as defined in section 3 of
3	the Carl D. Perkins Career and Technical Education
4	Act of 2006 (20 U.S.C. 2302)); or
5	(3) an institution of higher education (as de-
6	fined in section 102 of the Higher Education Act of
7	1965 (20 U.S.C. 1002)).
8	(g) Authorization of Appropriations.—There
9	are authorized to be appropriated to the Secretary
10	\$20,000,000 for each of fiscal years 2021 through 2030
11	to carry out this section.
12	SEC. 116. CIVILIAN CONSERVATION CENTERS REFOREST-
12 13	SEC. 116. CIVILIAN CONSERVATION CENTERS REFOREST- ATION ACTIVITIES.
13	ATION ACTIVITIES.
13 14 15	ATION ACTIVITIES. Section 147(d) of the Workforce Innovation and Op-
13 14	ATION ACTIVITIES. Section 147(d) of the Workforce Innovation and Opportunity Act (29 U.S.C. 3197(d)) is amended by adding
13 14 15 16	ATION ACTIVITIES. Section 147(d) of the Workforce Innovation and Opportunity Act (29 U.S.C. 3197(d)) is amended by adding at the end the following:
13 14 15 16	ATION ACTIVITIES. Section 147(d) of the Workforce Innovation and Opportunity Act (29 U.S.C. 3197(d)) is amended by adding at the end the following: "(4) REFORESTATION ACTIVITIES.—Enrollees
13 14 15 16 17	ATION ACTIVITIES. Section 147(d) of the Workforce Innovation and Opportunity Act (29 U.S.C. 3197(d)) is amended by adding at the end the following: "(4) Reforestation Activities.—Enrollees in Civilian Conservation Centers may provide assist-
13 14 15 16 17 18	ATION ACTIVITIES. Section 147(d) of the Workforce Innovation and Opportunity Act (29 U.S.C. 3197(d)) is amended by adding at the end the following: "(4) Reforestation Activities.—Enrollees in Civilian Conservation Centers may provide assistance in carrying out priority reforestation (as de-
13 14 15 16 17 18 19	ATION ACTIVITIES. Section 147(d) of the Workforce Innovation and Opportunity Act (29 U.S.C. 3197(d)) is amended by adding at the end the following: "(4) Reforestation Activities.—Enrollees in Civilian Conservation Centers may provide assistance in carrying out priority reforestation (as defined in section 2 of the Trillion Trees Act) projects

SEC. 117. FOREST TECHNOLOGY ENHANCEMENTS FOR CON-2 SERVATION AND HABITAT IMPROVEMENT. 3 (a) Establishment of Pilot Program.—Not later than 180 days after the date of the enactment of 5 this section, the Secretary, in consultation with the Secretary of the Interior, shall either establish a research, de-6 velopment, and testing pilot program or expand an appli-7 8 cable existing program to— 9 (1) assess new technologies, including un-10 manned aircraft system, geospatial, or remote sens-11 ing technologies, across all reforestation activities; 12 (2) accelerate the deployment and integration of 13 such technologies into the operations of the Secretaries; and 14 15 (3) collaborate and cooperate with State, Trib-16 al, and private geospatial information system organi-17 zations with respect to such technologies. 18 (b) Expanding Use of Unmanned Aircraft Sys-19 TEMS.—Not later than 1 year after the date of enactment 20 of this section, the Secretaries shall enter into an agreement to develop consistent protocols and plans for the use 21 22 of unmanned aircraft system technologies for reforestation 23 activities.

(c) Domestic Manufacture Requirement.—Any

unmanned aircraft system technology or component of un-

- 1 manned aircraft system technology used under this section
- 2 shall be made and manufactured in the United States.
- 3 (d) Rule of Construction.—Nothing in this sec-
- 4 tion shall be construed as prohibiting the Secretary of Ag-
- 5 riculture from using unmanned aircraft systems tech-
- 6 nologies in effect on the date of the enactment of this sec-
- 7 tion.
- 8 (e) Unmanned Aircraft System Defined.—In
- 9 this section, the term "unmanned aircraft system" has the
- 10 meaning given the term in section 44801 of title 49,
- 11 United States Code.
- 12 (f) Sunset.—The authority to carry out this section
- 13 shall terminate on the date that is 5 years after the date
- 14 of the enactment of this section.

15 Subtitle C—Urban Forests

- 16 SEC. 121. URBAN AND COMMUNITY FORESTRY ASSISTANCE.
- 17 (a) Tree City USA Grant Program.—Section 9
- 18 of the Cooperative Forestry Assistance Act of 1978 (16
- 19 U.S.C. 2105) is amended—
- 20 (1) by redesignating subsections (h) and (i) as
- 21 subsections (j) and (k), respectively; and
- 22 (2) by inserting after subsection (g) the fol-
- 23 lowing;
- 24 "(h) Tree City USA Grant Program.—

"(1) IN GENERAL.—The Secretary shall estab-1 2 lish a grant program to be known as the 'Tree City 3 USA Grant Program' to provide competitive grants 4 to eligible entities to enhance and maintain urban 5 forests. 6 "(2) Application.— 7 "(A) IN GENERAL.—To be eligible to be 8 awarded a grant under paragraph (1), an eligi-9 ble entity shall submit an application to the 10 Secretary at such time, in such manner, and 11 containing such information as the Secretary 12 may require, including a proposal to enhance 13 and maintain urban forests. 14 "(B) APPLICATION ASSISTANCE.—A non-15 profit organization that partners with an eligi-16 ble entity may submit an application under sub-17 paragraph (A) on behalf of such eligible entity. 18 "(3) Priority.—In awarding grants under 19 paragraph (1), the Secretary shall give priority to el-20 igible entities that submit proposals under para-21 graph (2)(A) that— "(A) enhance, maintain, or improve access 22 23 to urban forests in— "(i) typically underserved areas; or 24

1	"(ii) areas with low tree or environ-
2	mental equity;
3	"(B) further a statewide assessment or
4	local government initiative to enhance and
5	maintain urban forests;
6	"(C) include a plan to mitigate risks from
7	insects, disease, and non-native invasive species;
8	and
9	"(D) include a plan to monitor and main-
10	tain new and existing trees.
11	"(4) Technical assistance.—The Secretary
12	may provide technical assistance to local govern-
13	ments to assist such local governments with—
14	"(A) becoming eligible entities; and
15	"(B) proposals under paragraph (2)(A).
16	"(5) MATCHING FUNDS.—An eligible entity
17	that receives a grant under this subsection shall con-
18	tribute an amount of non-Federal funds (in cash or
19	in kind) that is at least equal to the amount of the
20	Federal funds received.
21	"(6) Premier tree city.—Not later than 1
22	year after the date of the enactment of the Trillion
23	Trees Act, and annually through 2030 thereafter,
24	the Secretary shall designate as a 'Premier Tree
25	City' one eligible entity awarded a grant under this

1	subsection to recognize the superior efforts of such
2	eligible entity in enhancing and maintaining urban
3	forests.
4	"(7) Authorization of appropriations.—In
5	addition to the amounts authorized under subsection
6	(k), there are authorized to be appropriated
7	\$1,000,000 for each of fiscal years 2021 through
8	2030 to carry out this subsection.
9	"(8) Eligible entity defined.—In this sub-
10	section, the term 'eligible entity' means a local gov-
11	ernment that—
12	"(A) serves an urban and community area;
13	and
14	"(B) a tree planting non-profit organiza-
15	tion recognizes as having—
16	"(i) a tree board or department;
17	"(ii) a tree care ordinance;
18	"(iii) a community forestry program
19	with an annual budget of at least \$2 per
20	capita; and
21	"(iv) an Arbor Day observance and
22	proclamation.".
23	(b) Cooperative Agreements for Urban Wood
24	UTILIZATION.—Section 9 of the Cooperative Forestry As-
25	sistance Act of 1978 (16 U.S.C. 2105), as amended by

1	subsection (a), is further amended by inserting after sub-
2	section (h) the following:
3	"(i) Pilot Project for Cooperative Agree-
4	MENTS FOR URBAN WOOD UTILIZATION.—
5	"(1) Cooperative agreements.—The Sec-
6	retary may enter into cooperative agreements with
7	State and local governments, institutions of higher
8	education, private or non-profit organizations, and
9	other entities that support projects that create wood
10	products from dead and fallen trees in urban and
11	community areas.
12	"(2) Prioritization.—The Secretary shall
13	prioritize entering into cooperative agreements
14	that—
15	"(A) support local job creation;
16	"(B) are located in typically underserved
17	areas or areas with low tree or environmental
18	equity;
19	"(C) develop new uses for dead and fallen
20	trees; and
21	"(D) improve urban forest health and re-
22	siliency.
23	"(3) Technical and financial assist-
24	ANCE.—The Secretary may provide technical or fi-
25	nancial assistance to entities that enter into a coop-

1	erative agreement under paragraph (1) to facili-
2	tate—
3	"(A) research on new uses for dead and
4	fallen trees in urban and community areas; and
5	"(B) market expansion opportunities for
6	products made from dead and fallen trees in
7	urban and community areas.
8	"(4) Report.—Not later than 1 year after the
9	date of the enactment of the Trillion Trees Act, the
10	Secretary shall provide a report to the relevant com-
11	mittees on—
12	"(A) the implementation of this subsection;
13	and
14	"(B) recommendations to encourage eco-
15	nomic development and job creation by creating
16	new markets for wood products made from
17	urban timber sources.
18	"(5) Definitions.—In this subsection—
19	"(A) DEAD AND FALLEN TREES.—The
20	term 'dead and fallen trees' means trees that—
21	"(i) are dying or have died;
22	"(ii) have partially or completely fall-
23	en over; or

1	"(iii) have been negatively impacted
2	by insects, disease, or weather-related dis-
3	turbances.
4	"(B) RELEVANT COMMITTEES.—The term
5	'relevant committees' means—
6	"(i) the Committees on Natural Re-
7	sources and Agriculture of the House of
8	Representatives; and
9	"(ii) the Committees on Energy and
10	Natural Resources and Agriculture, Nutri-
11	tion, and Forestry of the Senate.".
12	(c) Program of Education and Technical As-
13	SISTANCE CLARIFICATION FOR CARBON STORAGE.—Sec-
14	tion 9(d)(3) of the Cooperative Forestry Assistance Act
15	of 1978 (16 U.S.C. 2105(d)(3)) is amended—
16	(1) in subparagraph (C), by striking "and"
17	after the semicolon;
18	(2) in subparagraph (D), by inserting "and"
19	after the semicolon; and
20	(3) by inserting at the end the following new
21	subparagraph:
22	"(E) identifying opportunities to increase
23	carbon storage through afforestation (as de-
24	fined in section 2 of the Trillion Trees Act) and

1	scientific urban and community forestry man-
2	agement;".
3	(d) National Urban and Community Forestry
4	ADVISORY COUNCIL.—Section 9(g) of the Cooperative
5	Forestry Assistance Act of 1978 (16 U.S.C. 2105(g)) is
6	amended—
7	(1) in paragraph (2), by adding at the end the
8	following new subparagraph:
9	"(F) Meetings.—The Council established
10	under this subsection shall meet not less than
11	twice annually."; and
12	(2) by adding at the end the following new
13	paragraph:
14	"(7) Renewal of council.—
15	"(A) IN GENERAL.—Not later than 30
16	days after the date of the enactment of the
17	Trillion Trees Act, the Secretary shall renew
18	the Council.
19	"(B) TERMINATION.—The Council shall
20	not terminate except as provided by an Act of
21	Congress.".
22	(e) Urban and Community Forestry Action
23	PLAN CLARIFICATION FOR CARBON STORAGE.—Section
24	9(g)(3) of the Cooperative Forestry Assistance Act of

1	1978 (16 U.S.C. 2105(g)(3)) is amended by adding at the
2	end the following:
3	"(G) Recommendations for identifying op-
4	portunities to increase carbon storage through
5	afforestation (as defined in section 2 of the
6	Trillion Trees Act) and scientific urban and
7	community forestry management.".
8	(f) Authorization of Appropriations.—Sub-
9	section (k) of section 9 of the Cooperative Forestry Assist-
10	ance Act of 1978 (16 U.S.C. 2105), as redesignated by
11	subsection (a), is amended—
12	(1) by striking "\$30,000,000" and inserting
13	"\$50,000,000"; and
14	(2) by striking "fiscal years 1991 through
15	1995" and inserting "fiscal years 2021 through
16	2025".
17	SEC. 122. CIVILIAN CONSERVATION CENTER URBAN FOR-
18	ESTRY DEMONSTRATION PROGRAM.
19	Section 147(d) of the Workforce Innovation and Op-
20	portunity Act (29 U.S.C. 3197(d)), as amended by section
21	116, is further amended by adding at the end the fol-
22	lowing:
23	"(5) Urban forestry.—
24	"(A) Establishment.—Not later than 1
25	year after the date of the enactment of this

1	paragraph, the Secretary of Agriculture and the
2	Secretary of Labor shall jointly establish Civil-
3	ian Conservation Centers in urban and commu-
4	nity areas (as defined in subsection (j) of sec-
5	tion 9 of the Cooperative Forestry Assistance
6	Act of 1978 (16 U.S.C. 2105)).
7	"(B) Focus.—In addition to the training
8	and skills required under paragraph (1), the Ci-
9	vilian Conservation Centers established pursu-
10	ant to subparagraph (A) shall provide training
11	on urban forestry issues, including urban forest
12	conservation, management, maintenance, and
13	monitoring.".
14	SEC. 123. MEMORANDUM OF UNDERSTANDING TO COORDI
15	NATE URBAN FORESTRY PROGRAMS.
16	Not later than 120 days after the date of the enact-
17	ment of this Act, the Secretary shall enter into a memo-
18	randum of understanding with the Secretaries of Health
19	and Human Services, Housing and Urban Development
20	Interior, Labor, and Transportation and the Adminis-
21	trator of the Environmental Protection Agency to—
22	(1) identify strategies to increase equitable ac-
23	
23	cess to urban forests through existing programs and

1	(2) coordinate existing urban forestry pro-
2	grams;
3	(3) conduct research on the benefits of urban
4	forests for air quality, heat island mitigation, energy
5	burden reduction, and enhanced shading for heat-re-
6	silient housing and active transit; and
7	(4) conduct research on improving coordination
8	between the agencies to address insects, disease, and
9	non-native invasive species in urban and community
10	areas.
11	Subtitle D—International Forests
12	SEC. 131. SENSE OF CONGRESS.
13	It is the sense of Congress that—
14	(1) the Trillion Trees Initiative established by
15	the World Economic Forum should be supported;
16	(2) under such Trillion Trees Initiative, coun-
17	tries, corporations, and individuals around the globe
18	will contribute to conserving, restoring, and growing
19	one trillion trees;
20	(3) one trillion new trees globally would seques-
21	ter a significant amount of atmospheric carbon and
22	constitute a pragmatic step towards addressing glob-
23	al carbon emissions; and
	ar our soir ormostoris, and

1	(A) take a leadership role in conserving,
2	restoring, and growing one trillion trees glob-
3	ally;
4	(B) use the vast natural assets, robust for-
5	est products market, and technical expertise of
6	the United States, to conserve, regenerate,
7	manage, and utilize domestic forestland; and
8	(C) incentivize the use of sustainable build-
9	ing products to store carbon.
10	SEC. 132. INTERNATIONAL FOREST FOUNDATION.
11	(a) Establishment.—The Administrator of the
12	United States Agency for International Development may
13	enter into an agreement with a non-profit organization to
14	establish an "International Forest Foundation" (in this
15	section referred to as the "Foundation", which shall not
16	be an agency or instrumentality of the United States Gov-
17	ernment.
18	(b) Purposes.—The purposes of the Foundation
19	shall be—
20	(1) to encourage, accept, and administer private
21	gifts of money and of real and personal property for
22	the benefit of, or in connection with, the activities
23	and services carried out by the United States Agen-

cy for International Development to promote refor-

- estation, afforestation, and the prevention of deforestation around the world;
 - (2) to use private funds to support, undertake, and conduct activities that further the goals established under section 101; and
 - (3) to undertake, conduct, and encourage educational, technical, and other assistance and other activities that support international goals to increase global carbon capture and storage through the promotion of healthy forests and responsible forest management.

(c) Transfer of Funds; Liability.—

- (1) Transfer of funds.—The Administrator may authorize, pursuant to an agreement entered into in accordance with this section, the transfer of funds of the United States Agency for International Development to a nonprofit organization for the purpose of offsetting any administrative costs of the Foundation.
- (2) Liability.—The United States shall not be liable for any debts, defaults, acts, or omissions of the Foundation. The full faith and credit of the United States shall not extend to any obligations of the Foundation.

SEC. 133. INTERNATIONAL ENGAGEMENT.

- 2 (a) In General.—To the maximum extent prac-
- 3 ticable, the Administrator of the United States Agency for
- 4 International Development shall prioritize programs to
- 5 support reforestation and afforestation, and to prevent de-
- 6 forestation, in developing countries and in regions that
- 7 have experienced significant levels of deforestation or
- 8 whose biodiversity, local economy, and stability would be
- 9 significantly impacted by deforestation or loss of forest
- 10 canopy cover around the world.
- 11 (b) COORDINATION.—In carrying out the programs
- 12 prioritized in accordance with subsection (a), the Adminis-
- 13 trator shall, to the maximum extent practicable, make use
- 14 of public-private partnerships to facilitate engagement by
- 15 nonprofit organizations and industry partners.

16 SEC. 134. GLOBAL CLIMATE CHANGE PROGRAM.

- 17 (a) FORESTRY INCLUDED.—Section 2402(c)(2) of
- 18 the Global Climate Change Prevention Act of 1990 (7
- 19 U.S.C. 6701(c)(2)) is amended by inserting "and for-
- 20 estry" after "agriculture".
- 21 (b) Study of Global Climate Change, Agri-
- 22 CULTURE, AND FORESTRY.—Section 2403(b) of the Glob-
- 23 al Climate Change Prevention Act of 1990 (7 U.S.C.
- 24 6702(b)) is amended—

1	(1) in the first proviso, by striking "The Sec-
2	retary shall conduct a study" and inserting the fol-
3	lowing:
4	"The Secretary shall, not later than 2 years after the
5	date of enactment of the Trillion Trees Act, conduct a
6	study and submit a report to Congress";
7	(2) in paragraph (2), by striking "and" at the
8	end;
9	(3) in paragraph (3), by striking the period at
10	the end and inserting "; and; and
11	(4) by adding at the end the following:
12	"(5) identify and address programs which could
13	lead to increased forest carbon stock (as defined in
14	section 2 of the Trillion Trees Act) globally, healthy
15	international forest ecosystems, and a globally sus-
16	tainable forest products market.".
17	(c) Office of International Forestry.—Section
18	2405(c) of the Global Climate Change Prevention Act of
19	1990 (7 U.S.C. 6704(e)) is amended—
20	(1) in paragraph (2), by striking the "and" at
21	the end;
22	(2) in paragraph (3), by striking the period at
23	the end and inserting "; and; and
24	(3) by adding at the end the following:

1	"(4) identify and implement programs which
2	lead to—
3	"(A) increased forest carbon stock (as de-
4	fined in section 2 of the Trillion Trees Act)
5	globally;
6	"(B) healthy international forest eco-
7	systems; and
8	"(C) a globally sustainable forest products
9	market.".
10	(d) Authorization of Appropriations.—Section
11	2412 of the Global Climate Change Prevention Act of
12	1990 (7 U.S.C. 6710) is amended by striking "1991
13	through 1997" and inserting "2021 through 2025".
14	SEC. 135. INTERNATIONAL FORESTRY COOPERATION.
15	Section 602(b)(1) of the International Forestry Co-
16	operation Act of 1990 (16 U.S.C. $4501(b)(1)$) is amend-
17	ed—
18	(1) in subparagraph (G), by striking "and" at
19	the end;
20	(2) in subparagraph (H), by inserting "and" at
21	the end; and
22	(3) by adding at the end the following:
23	"(I) activities that increase forest carbon
24	stock (as defined in section 2 of the Trillion
25	Trees Act), including reforestation and

1	afforestation (as such terms are defined in such
2	section) programs.".
3	SEC. 136. MODIFICATIONS TO AUTHORITIES RELATING TO
4	TROPICAL FORESTS.
5	Section 118 of the Foreign Assistance Act of 1961
6	(22 U.S.C. 2151p-1) is amended as follows:
7	(1) In subsection (a)(2), by inserting ", includ-
8	ing by reducing global forest carbon stock (as de-
9	fined in section 2 of the Trillion Trees Act)" before
10	the period at the end.
11	(2) In subsection (c)(1), by inserting ", refor-
12	estation (as defined in section 2 of the Trillion Trees
13	Act)," after "conservation".
14	(3) In subsection $(e)(2)(A)$, by inserting "and
15	impact on global carbon emissions" after "irrevers-
16	ible losses".
17	(4) In subsection (c)(6), by inserting "(includ-
18	ing projects to increase forest carbon stock)" after
19	"sustainable forestry projects and practices".
20	(5) In subsection (c)(8), by inserting "increas-
21	ing forest carbon stock (as defined in section 2 of
22	the Trillion Trees Act)," after "soil conservation,".
23	(6) In subsection (f), by inserting "and a study
24	on the total carbon sequestered through increases in
25	tropical forest carbon stock (as defined in section 2

1	of the Trillion Trees Act) globally as a result of pro-
2	grams, projects, and activities carried out under this
3	section" before the period at the end.
4	TITLE II—CARBON SEQUESTRA-
5	TION THROUGH IMPROVED
6	FOREST MANAGEMENT AC-
7	TIVITIES
8	SEC. 201. LAND USE PLANNING; SUPPLEMENTS TO PRO-
9	GRAMMATIC ENVIRONMENTAL IMPACT
10	STATEMENTS.
11	(a) Priority Areas.—
12	(1) Areas identified.—The Secretary shall
13	designate a landscape-level area on covered land as
14	a priority area if—
15	(A) the Secretary has identified such area
16	as having a high or very high risk of wildfire;
17	(B) the completion of covered projects in
18	such area would reduce the risk of carbon emis-
19	sions as a result of wildfire or tree mortality;
20	and
21	(C) the area is covered by an existing pro-
22	grammatic environmental impact statement ap-
23	plicable to such covered projects.
24	(2) Effect of identification.—The Sec-
25	retary shall prioritize review under section 102(2)(C)

- of the National Environmental Policy Act of covered projects in a priority area over the completion of any other review under such section.
 - (3) DEADLINE FOR IDENTIFICATION.—The Secretary shall establish the priority areas required under paragraph (1)—
 - (A) in the case of priority areas for watershed protection projects, critical infrastructure protection projects, or wildlife habitat restoration projects, not later than 60 days after the date of the enactment of this section; and
 - (B) in the case of priority areas for wildland-urban interface protection projects, not later than 60 days after the programmatic environmental impact statement required under subsection (b) is completed.

(4) REVIEW AND MODIFICATION.—

(A) IN GENERAL.—Except with respect to areas subject to review under subparagraph (B), not later than 5 years after the date of the enactment of this section and not less than once every 5 years thereafter, the Secretary shall review the priority areas established under paragraph (1) and modify, add, or remove such priority areas.

1	(B) WILDLAND-URBAN INTERFACE PRO-
2	TECTION PRIORITY AREAS.—Not later than 5
3	years after the date on which the programmatic
4	environmental impact statement required by
5	subsection (b) is complete and not less than
6	once every 5 years thereafter, the Secretary
7	shall review the priority areas established under
8	paragraph (1) and covered by such statement
9	and modify, add, or remove such priority areas.
10	(b) Programmatic Environmental Impact
11	STATEMENT FOR WILDLAND-URBAN INTERFACE PRO-
12	TECTION PROJECTS.—Not later than 5 years after the
13	date of the enactment of this section, the Secretary shall
14	complete a programmatic environmental impact statement
15	in accordance with section 102(2)(C) of the National En-
16	vironmental Policy Act of 1969 (42 U.S.C. 4332(2)(C))
17	for wildland-urban interface protection on public lands, in-
18	cluding with respect to—
19	(1) lands classified as high or very high risk of
20	wildfire; and
21	(2) areas with at-risk communities (as defined
22	in section 101 of the Healthy Forest Restoration Act
23	of 2003 (16 U.S.C. 6511)).
24	(e) Compliance With the National Environ-
25	MENTAL POLICY ACT.—

- (1) IN GENERAL.—The requirements of section 102(2)(C) of National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C) with respect to a major Federal action taken under this section shall be deemed to be met—
 - (A) for wildland-urban interface protection projects proposed after the date of completion of the programmatic environmental impact statement required by subsection (b), by supplementing such programmatic environmental impact statement and incorporating relevant additional regional analyses that have been completed by Federal agencies since such statement was finalized;
 - (B) for watershed protection projects, by supplementing the programmatic environmental impact statement entitled "National Forest System Land Management Planning" published in January 2012 and incorporating relevant additional regional analyses that have been completed by Federal agencies since such statement was finalized;
 - (C) for critical infrastructure protection projects, by supplementing the programmatic environmental impact statement entitled "Des-

1	ignation of Energy Corridors on Federal Land
2	in the 11 Western States (DOE/EIS-0386)"
3	published on November 28, 2008 and incor-
4	porating relevant additional regional analyses
5	that have been completed by Federal agencies
6	since such statement was finalized; and
7	(D) for wildlife habitat restoration
8	projects, by supplementing the programmatic
9	environmental impact statement entitled "Na-
10	tional Forest System Land Management Plan-
11	ning" published in January 2012 and incor-
12	porating relevant additional regional analyses
13	that have been completed by Federal agencies
14	since such statement was finalized.
15	(2) Coordination and consultation.—In
16	developing a supplement under subparagraphs (A)
17	through (D) of paragraph (1), the Secretary shall
18	consult and coordinate with—
19	(A) appropriate State, Tribal, and local
20	governments;
21	(B) transmission infrastructure and water
22	infrastructure owners, operators, and devel-
23	opers; and
24	(C) other appropriate entities.

- 1 (d) Environmental Review in Priority 2 Areas.—
- 3 (1) IN GENERAL.—If the Regional Forester de-4 termines that a proposed covered project has been 5 sufficiently analyzed by a previously completed pro-6 grammatic environmental impact statement, such 7 statement shall be deemed to fulfill the requirements 8 of section 102(2)(C) of the National Environmental 9 Policy Act of 1969 (42 U.S.C. 4332(2)(C)) with re-10 spect to such project. The applicable Regional For-11 ester shall publish any such determinations on a 12 publicly available website.
 - (2) Additional Environmental Review.—If the Regional Forester determines that a proposed covered project has not been sufficiently analyzed under paragraph (1) and additional environmental review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) is necessary, the applicable Regional Forester shall rely on analysis in previously completed environmental reviews under such Act in analyzing the potential impacts of the proposed covered project.
- 23 (e) Reports to Congress.—Not later than Feb-24 ruary 1 of the first fiscal year beginning after the date 25 of the enactment of this section, and each February 1

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1	thereafter, the Secretary shall submit to the relevant com-
2	mittees a report that includes—
3	(1) a description, with respect to the preceding
4	year, of the progress of covered projects in priority
5	areas established under this section; and
6	(2) projections for how such covered projects
7	will reduce the risk and severity of carbon emissions
8	from wildfires and tree mortality.
9	(f) Definitions.—In this section:
10	(1) COVERED LAND.—The term "covered land"
11	means National Forest System lands that are not
12	excluded from forest management activities as a re-
13	sult of—
14	(A) an applicable forest plan;
15	(B) inclusion in the National Wilderness
16	Preservation System;
17	(C) inclusion within a National or State-
18	specific inventoried roadless area established by
19	the Secretary, unless—
20	(i) the forest management activity to
21	be carried out is consistent with the forest
22	plan applicable to the area; and
23	(ii) the Secretary, or their designee,
24	determines the forest management activity

1	is allowed under the roadless rule gov-
2	erning such lands; or
3	(D) any other Federal law.
4	(2) COVERED PROJECTS.—The term "covered
5	projects" means critical infrastructure protection
6	projects, watershed protection projects, wildland-
7	urban interface protection projects, and wildlife
8	habitat restoration projects.
9	(3) Critical infrastructure protection
10	PROJECT.—The term "critical infrastructure protec-
11	tion project" means a forest or rangeland manage-
12	ment project with the primary objective of—
13	(A) reducing the risk of wildfire ignition
14	within or adjacent to—
15	(i) a utility infrastructure right-of-
16	way; or
17	(ii) public transportation infrastruc-
18	ture;
19	(B) protecting public infrastructure from
20	wildfire; or
21	(C) removing hazard trees and or other
22	hazardous fuels from a utility infrastructure
23	right-of-way.
24	(4) Relevant committees.—The term "rel-
25	evant committees" means—

1	(A) the Committee on Agriculture, Nutri-
2	tion, and Forestry of the Senate;
3	(B) the Committee on Energy and Natural
4	Resources of the Senate;
5	(C) the Committee on Agriculture of the
6	House of Representatives; and
7	(D) the Committee on Natural Resources
8	of the House of Representatives.
9	(5) Watershed protection project.—The
10	term "watershed protection project" means a forest
11	or rangeland management project with the objective
12	of—
13	(A) protecting a municipal or Tribal water
14	source from damage or destruction caused by
15	wildfire;
16	(B) improving, maintaining, or restoring
17	water quality or yield; or
18	(C) any combination of the purposes speci-
19	fied in subparagraphs (A) through (B).
20	(6) WILDLAND-URBAN INTERFACE PROTECTION
21	PROJECT.—The term "wildland-urban interface pro-
22	tection project" means a forest or rangeland man-
23	agement project which takes place within the bound-
24	aries of, or adjacent to, an at-risk community (as

1	defined in section 101 of the Healthy Forests Res-
2	toration Act of 2003 (16 U.S.C. 6511)).
3	(7) WILDLIFE HABITAT RESTORATION
4	PROJECT.—The term "wildlife habitat restoration
5	project" means a forest or rangeland management
6	project with the primary objective of—
7	(A) protecting, improving, maintaining, or
8	restoring wildlife habitat; or
9	(B) protecting, improving, maintaining, re-
10	storing, or enhancing management with respect
11	to critical habitat (as defined in section 4 of the
12	Endangered Species Act of 1973 (16 U.S.C.
13	1532)).
14	SEC. 202. FOREST CARBON STOCK ON STATE AND PRIVATE
14 15	SEC. 202. FOREST CARBON STOCK ON STATE AND PRIVATE FORESTS.
15 16	FORESTS.
15 16 17	FORESTS. (a) Adding Increasing Forest Carbon Stock as
15 16 17	FORESTS. (a) Adding Increasing Forest Carbon Stock as A Priority.—Section 2(b) of the Cooperative Forestry
15 16 17 18	FORESTS. (a) Adding Increasing Forest Carbon Stock as a Priority.—Section 2(b) of the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2101) is amended—
15 16 17 18	FORESTS. (a) Adding Increasing Forest Carbon Stock as A Priority.—Section 2(b) of the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2101) is amended— (1) by redesignating subparagraphs (6) through
15 16 17 18 19 20	FORESTS. (a) Adding Increasing Forest Carbon Stock as a Priority.—Section 2(b) of the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2101) is amended— (1) by redesignating subparagraphs (6) through (10) as subparagraphs (7) through (11), respections.
15 16 17 18 19 20 21	FORESTS. (a) Adding Increasing Forest Carbon Stock as a Priority.—Section 2(b) of the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2101) is amended— (1) by redesignating subparagraphs (6) through (10) as subparagraphs (7) through (11), respectively; and
15 16 17 18 19 20 21	(a) Adding Increasing Forest Carbon Stock as a Priority.—Section 2(b) of the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2101) is amended— (1) by redesignating subparagraphs (6) through (10) as subparagraphs (7) through (11), respectively; and (2) by inserting after paragraph (5) the fol-

- 1 estation, management, and related optimizations of
- 2 forest carbon stock (as such terms are defined in
- 3 such section) for climate and other ecological bene-
- 4 fits;".
- 5 (b) Support for State Assessments and Strat-
- 6 EGIES FOR FOREST RESOURCES WHEN CONSIDERING
- 7 Carbon Emissions.—Section 2A(a)(1) of the Coopera-
- 8 tive Forestry Assistance Act of 1978 (16 U.S.C.
- 9 2101a(a)(1)) is amended—
- 10 (1) by redesignating subparagraph (C) and (D)
- as subparagraphs (D) and (E), respectively; and
- 12 (2) by inserting after subparagraph (B) the fol-
- lowing:
- 14 "(C) the current amount of forest carbon
- stock (as defined in section 2 of the Trillion
- Trees Act and incorporating data from the for-
- est inventory and analysis program under sec-
- tion 3(e)) on State lands and opportunities for
- increased forest carbon stock;".
- 20 (c) Increasing Forest Carbon Stock Through
- 21 THE FOREST STEWARDSHIP PROGRAM.—Section 5(d)(1)
- 22 of the Cooperative Forestry Assistance Act of 1978 (16
- 23 U.S.C. 2103a(d)) is amended by inserting "carbon seques-
- 24 tration and storage" before "and the aesthetic".

- 1 (d) Increasing Forest Carbon Stock Through
- 2 THE COMMUNITY FOREST AND OPEN SPACE CONSERVA-
- 3 TION PROGRAM.—Section 7A(c)(1)(B)(ii) of the Coopera-
- 4 tive Forestry Assistance Act of 1978 (16 U.S.C.
- 5 2103d(c)(1)(B)(ii)) is amended by inserting "increasing
- 6 forest carbon stock (as defined in section 2 of the Trillion
- 7 Trees Act) and promoting," after "including".
- 8 (e) Increasing Forest Carbon Stock Through
- 9 THE PROMOTION OF FOREST HEALTH.—Section 8(a) of
- 10 the Cooperative Forestry Assistance Act of 1978 (16
- 11 U.S.C. 2104(a)) is amended—
- 12 (1) by redesignating paragraphs (4) through
- 13 (6) as paragraphs (5) through (7); and
- 14 (2) by inserting after paragraph (3) the fol-
- lowing:
- 16 "(4) protect or enhance forest carbon stock (as
- defined in section 2 of the Trillion Trees Act) on
- healthy forestland;".
- 19 (f) Increasing Forest Carbon Stock Through
- 20 THE REDUCTION OF CATASTROPHIC WILDFIRE.—Section
- 21 10A(b)(1) of the Cooperative Forestry Assistance Act of
- 22 1978 (16 U.S.C. 2106c(b)(1)) is amended—
- 23 (1) in subparagraph (C), by striking "and" at
- 24 the end;

1	(2) in subparagraph (D), by striking the period
2	and inserting "and" at the end; and
3	(3) by inserting at the end the following:
4	"(E) to educate the public about the car-
5	bon stored in healthy forests and carbon emit-
6	ted through wildfire and forest decline.".
7	(g) Increasing Forest Carbon Stock Through
8	THE STATE AND PRIVATE FOREST LANDSCAPE-SCALE
9	RESTORATION.—Section 13A of the Cooperative Forestry
10	Assistance Act of 1978 (16 U.S.C. 2109a) is amended—
11	(1) in subsection (e)—
12	(A) in paragraph (6), by striking "and" at
13	the end;
14	(B) by redesignating paragraph (7) as
15	paragraph (8); and
16	(C) by inserting after paragraph (6) the
17	following:
18	"(7) to improve the potential to increase forest
19	carbon stock (as defined in section 2 of the Trillion
20	Trees Act); and"; and
21	(2) in subsection (l), by amending paragraph
22	(3) to read as follows:
23	"(3) Authorization of appropriations.—
24	There is authorized to be appropriated to the Fund
25	\$25,000,000 for each fiscal year beginning with the

1	first full fiscal year after the date of the enactment
2	of the Trillion Trees Act through fiscal year 2025,
3	to remain available until expended.".
4	SEC. 203. GOOD NEIGHBOR AUTHORITY.
5	Section 8206 of the Agricultural Act of 2014 (16
6	U.S.C. 2113a) is amended—
7	(1) in subsection $(a)(4)(A)$ —
8	(A) in clause (ii), by striking "and" at the
9	end;
10	(B) by redesignating clause (iii) as clause
11	(iv);
12	(C) by inserting after clause (ii) the fol-
13	lowing:
14	"(iii) activities to increase forest car-
15	bon stock (as defined in section 2 of the
16	Trillion Trees Act), including reforestation
17	(as defined in such section) activities;";
18	(D) in clause (iv), as so redesignated, by
19	striking the period at the end and inserting ";
20	or''; and
21	(E) by adding at the end the following:
22	"(v) any combination of activities
23	specified in clauses (i) through (iv).";
24	(2) in subsection (b)(1), by adding at the end
25	of the following:

1	"(C) REFORESTATION PRIORITY.—With
2	respect to forest, rangeland, and watershed res-
3	toration services described in subsection
4	(a)(4)(A)(iii), the Secretary of Agriculture may
5	enter into good neighbor agreements under this
6	section in accordance with the priorities speci-
7	fied in subsection (e)(3)(A)(ii) of section 3 of
8	the Forest and Rangeland Renewable Resources
9	Planning Act of 1974 (16 U.S.C. 1601)."; and
10	(3) in subsection (b)(2), by amending subpara-
11	graph (C) to read as follows:
12	"(C) Treatment of Revenue.—Funds
13	received from the sale of timber by a Governor
14	of a State under a good neighbor agreement
15	shall be retained and used by the Governor—
16	"(i) to carry out authorized restora-
17	tion services under such good neighbor
18	agreement; and
19	"(ii) if funds are remaining after car-
20	rying out the services under clause (i), to
21	carry out authorized restoration services
22	within the State under other good neighbor
23	agreements.".

1	SEC. 204. RESEARCH AND DEVELOPMENT PROGRAMS.
2	Section 3 of the Forest and Rangeland Renewable
3	Resources Research Act of 1978 (16 U.S.C. 1642) is
4	amended—
5	(1) in subsection (a), by adding at the end the
6	following:
7	"(6) Renewable resource assessment research
8	shall also include, as appropriate, research activities
9	related to the sequestration of carbon, including the
10	increased carbon storage through afforestation (as
11	defined in section 2 of the Trillion Trees Act), refor-
12	estation (as defined in such section), forest and
13	rangeland management, and the utilization of wood
14	and other materials derived from forest and range-
15	land renewable resources to store carbon in building
16	materials, industrial and consumer products."; and
17	(2) in subsection $(d)(2)$, by adding at the end
18	the following:
19	"(F) Carbon sequestration.".
20	TITLE III—MARKET INCENTIVES
21	FOR CARBON SEQUESTRATION
22	SEC. 301. BIOCHAR DEMONSTRATION PROJECT AND GRANT
23	PROGRAM.
24	(a) Demonstration Projects.—
25	(1) Establishment.—

- 1 (A) IN GENERAL.—Not later than 2 years
 2 after the date of the enactment of this section,
 3 the Secretaries shall establish a program to
 4 enter into partnerships with eligible entities to
 5 carry out demonstration projects to support the
 6 development and commercialization of biochar
 7 in accordance with this subsection.
 - (B) LOCATION OF DEMONSTRATION PROJECTS.—The Secretaries shall, to the maximum extent practicable, establish at least one biochar demonstration project in each Forest Service region.
 - (2) Proposals.—To be eligible to enter into a partnership to carry out a biochar demonstration project under paragraph (1)(A), an eligible entity shall submit to the Secretaries a proposal at such time, in such manner, and containing such information as the Secretaries may require.
 - (3) Priority.—In selecting proposals under paragraph (2), the Secretaries shall give priority to partnering with eligible entities that submit proposals to carry out biochar demonstration projects that—
- 24 (A) have the most carbon sequestration potential;

1	(B) will create new jobs and contribute to
2	local economies, particularly in rural areas;
3	(C) will demonstrate—
4	(i) new and innovative uses of biochar;
5	(ii) viable markets for cost-effective
6	biochar-based products;
7	(iii) the ecosystem services of biochar;
8	(iv) the benefits of biochar to restore
9	forest heath and resiliency, including for
10	forest soils and watersheds; or
11	(v) any combination of purposes speci-
12	fied in clauses (i) through (iv);
13	(D) are located in local markets that have
14	the greatest need for the biochar production
15	units due to—
16	(i) nearby lands identified as having
17	high or very high or extreme risk of wild-
18	fire;
19	(ii) availability of sufficient quantities
20	of feedstocks; or
21	(iii) a high level of demand for
22	biochar or other commercial byproducts of
23	biochar; or
24	(E) any combination of purposes specified
25	in subparagraphs (A) through (D).

1	(4) Use of funds.—In carrying out the pro-
2	gram established under paragraph (1)(A), the Secre-
3	taries may enter into partnerships and provide fund-
4	ing to carry out demonstration projects that—
5	(A) acquire and test various feedstocks and
6	their efficacy;
7	(B) develop and optimize commercially and
8	technologically viable biochar production units
9	including mobile and permanent units;
10	(C) demonstrate the production of biochar
11	from forest residues and the use of biochar to
12	restore forest health and resiliency;
13	(D) build, expand, or establish biochar fa-
14	cilities;
15	(E) conduct research on new and innova-
16	tive uses of biochar or demonstrate cost-effec-
17	tive market opportunities for biochar and
18	biochar-based products;
19	(F) carry out any other activities the Sec-
20	retaries determine appropriate; or
21	(G) any combination of the purposes speci-
22	fied in subparagraphs (A) through (F).
23	(5) FEEDSTOCK REQUIREMENTS.—To the max-
24	imum extent practicable, a biochar demonstration
25	project under this subsection shall, with respect to

1	the feedstock used under such project, derive at
2	least 50 percent of such feedstock from forest
3	thinning and management activities, including mill
4	residues, conducted on National Forest System
5	lands.
6	(6) Review of biochar demonstration.—
7	(A) In General.—The Secretaries shall
8	conduct regionally-specific research, including
9	economic analyses and life-cycle assessments, on
10	the biochar produced from the demonstration
11	projects under this subsection, including—
12	(i) the effects of such biochar on—
13	(I) forest health and resiliency;
14	(II) carbon capture and seques-
15	tration, including increasing soil car-
16	bon in the short-term and long-term;
17	(III) productivity, reduced input
18	costs, and water retention in agricul-
19	tural practices;
20	(IV) soil and grassland health for
21	grazing activities, including grazing
22	activities on Federal land;
23	(V) environmental remediation
24	activities, including abandoned mine
25	land remediation; and

1	(VI) other ecosystem services of
2	biochar;
3	(ii) the efficacy of biochar as a co-
4	product of biofuels or in biochemicals; and
5	(iii) whether biochar can effectively be
6	used to produce any other technologically
7	and commercially viable outcome.
8	(B) COORDINATION.—The Secretaries
9	shall, to the maximum extent practicable, pro-
10	vide data, analysis, and other relevant informa-
11	tion collected under subparagraph (A) to eligi-
12	ble institutions conducting research and devel-
13	opment activities on biochar pursuant to receiv-
14	ing a grant under subsection (b).
15	(7) Limitation on funding for estab-
16	LISHING BIOCHAR FACILITIES.—In the case of an el-
17	igible entity that enters in to a partnership to carry
18	out a biochar demonstration project under this sub-
19	section and seeks to establish a biochar facility
20	under such demonstration project, the Secretaries
21	may not provide funding to such eligible entity in an
22	amount greater than 35 percent of the capital cost
23	of establishing such biochar facility.
24	(b) BIOCHAR RESEARCH AND DEVELOPMENT GRANT
25	Program.—

1	(1) Establishment.—The Secretary of Agri-
2	culture shall establish an applied biochar research
3	and development grant program to make competitive
4	grants to eligible institutions to carry out the activi-
5	ties described in paragraph (3).
6	(2) Applications.—To be eligible to receive a
7	grant under this subsection, an eligible entity shall
8	submit to the Secretary a proposal at such time, in
9	such manner, and containing such information as
10	the Secretary may require.
l 1	(3) Use of funds.—An eligible institution
12	that receives a grant under this subsection shall use
13	the grant funds to conduct applied research on—
14	(A) the effect of biochar on forest health
15	and resiliency, accounting for variations in
16	biochar, soil, climate, and other factors;
17	(B) the effect of biochar on soil health and
18	water retention, accounting for variations in
19	biochar, soil, climate, and other factors;
20	(C) the long-term carbon sequestration po-
21	tential of biochar;
22	(D) the best management practices of
23	biochar and biochar based-products to—
24	(i) maximize carbon sequestration
25	benefits; and

1	(ii) maximize the commercial viability
2	and application of such products in for-
3	estry, agriculture, environmental remedi-
4	ation, water quality improvement, and
5	other uses;
6	(E) the regional uses of biochar to increase
7	productivity and profitability, including—
8	(i) uses in agriculture and environ-
9	mental remediation; and
10	(ii) use as a co-product in fuel produc-
11	tion;
12	(F) new and innovative uses from biochar
13	byproducts; and
14	(G) opportunities to expand markets for
15	biochar and create jobs, particularly in rural
16	areas.
17	(c) Reports.—
18	(1) Report to congress.—Not later than 2
19	years after the date of the enactment of this section,
20	the Secretaries shall submit a report to Congress
21	that—
22	(A) includes policy and program rec-
23	ommendations to improve the widespread use of
24	biochar;

1	(B) identifies the areas of research needed
2	to advance biochar commercialization; and
3	(C) identifies barriers to further biochar
4	commercialization, including permitting and
5	siting considerations.
6	(2) President's annual budget request.—
7	Beginning 2 years after the date of the enactment
8	of this section and annually until the date described
9	in subsection (d), the Secretaries shall include in the
10	budget materials submitted to Congress in support
11	of the President's annual budget request (submitted
12	to Congress pursuant to section 1105 of title 31,
13	United States Code) for each fiscal year a report on
14	the status of the demonstration projects carried out
15	under subsection (a) and the research and develop-
16	ment grants carried out under subsection (b).
17	(d) Sunset.—The authority to carry out this section
18	shall terminate on the date that is 10 years after the date
19	of the enactment of this section.
20	(e) Definitions.—In this section:
21	(1) BIOCHAR.—The term "biochar" means car-
22	bonized biomass produced by converting feedstock
23	through reductive thermal processing for non-fuel
24	uses.

1	(2) ELIGIBLE ENTITY.—The term "eligible enti-
2	ty" means—
3	(A) State, local, and Tribal governments;
4	(B) eligible institutions; and
5	(C) private, non-private, or cooperative en-
6	tities.
7	(3) Eligible institution.—The term "eligi-
8	ble institution" means land-grant colleges and uni-
9	versities, including institutions eligible for funding
10	under the—
11	(A) Act of July 2, 1862;
12	(B) Act of August 30, 1890, including
13	Tuskegee University;
14	(C) Public Law 87–788 (commonly known
15	as the "McIntire-Stennis Act of 1962"); or
16	(D) Equity in Educational Land-Grant
17	Status Act of 1994 (7 U.S.C. 301 note).
18	(4) FEEDSTOCK.—The term "feedstock" means
19	excess biomass in the form of plant matter or mate-
20	rials that serves as the raw material for the produc-
21	tion of biochar.
22	(5) Secretaries.—The term "Secretaries"
23	means—
24	(A) the Secretary of Agriculture, acting
25	through the Chief of the Forest Service; and

1	(B) the Secretary of Energy, acting
2	through the Director of the Office of Science.
3	(f) Authorization of Appropriations.—There is
4	authorized to be appropriated \$50,000,000 for each of fis-
5	cal years 2021 through 2023 to carry out this section.
6	SEC. 302. SUSTAINABLE BUILDING AND RESIDENCE CRED-
7	IT.
8	(a) In General.—Subpart B of part IV of sub-
9	chapter A of chapter 1 of the Internal Revenue Code of
10	1986 is amended by adding at the end the following new
11	section:
12	"SEC. 30E. SUSTAINABLE BUILDING AND RESIDENCE CRED-
13	IT.
14	"(a) In General.—There shall be allowed as a cred-
15	it against the tax imposed by this chapter for the taxable
16	year an amount equal to the sustainability percentage of—
17	"(1) the taxpayer's purchase price of a quali-
18	fying building or residence, and
19	"(2) the taxpayer's remodeling price of a build-
20	ing or structure described in subsection (c)(3)(B).
21	"(b) Sustainability Percentage.—For purposes
22	of this section:
23	"(1) In general.—
24	"(A) Purchase price.—The sustain-
25	ability percentage with respect to the purchase

1	price of any qualifying building or residence
2	shall be a percentage equal to the lesser of—
3	"(i) the percentage by which the sus-
4	tainability score for such qualifying build-
5	ing or residence exceeds the average sus-
6	tainability score for the class to which such
7	building or residence belongs, or
8	"(ii) 25 percent.
9	"(B) Remodeling price.—The sustain-
10	ability percentage with respect to the remod-
11	eling price of a building or structure shall be a
12	percentage equal to the lesser of—
13	"(i) the percentage by which, after re-
14	modeling, the sustainability score for such
15	building or structure exceeds the average
16	sustainability score for the class to which
17	such building or structure belongs, or
18	"(ii) 12.5 percent.
19	"(2) Sustainability scoring.—
20	"(A) In general.—Not later than 1 year
21	after the date of the enactment of this section,
22	the Secretary (in consultation with the Sec-
23	retary of Energy) shall establish—
24	"(i) a certification process for deter-
25	mining a sustainability score with respect

1	to any building for purposes of the credit
2	allowed under this section, and
3	"(ii) an average sustainability score
4	for different classes of buildings for pur-
5	poses of the comparison under subsection
6	(b)(1)(A)(i) or subsection $(b)(1)(B)(i)$.
7	"(B) Factors for score.—Such score
8	shall at least take into account the following
9	factors:
10	"(i) The net carbon emitted during
11	the production and delivery of materials
12	used in construction of the building.
13	"(ii) The net carbon emitted during
14	the operation of the building on a yearly
15	basis.
16	"(iii) The amount of carbon retained
17	by the building, taking into account build-
18	ing construction materials and processes
19	and continuing use or disposal of carbon in
20	connection with the use of the building.
21	"(iv) The climate in which the build-
22	ing is located.
23	"(C) AVERAGE SUSTAINABILITY.—The
24	classes for which average sustainability scores

1	are determined shall at least take into account
2	the following distinguishing characteristics:
3	"(i) Residential and commercial build-
4	ings.
5	"(ii) Multi-family and single-family
6	residential.
7	"(iii) The size, volume, and intended
8	use of the building.
9	"(D) Updates.—The Secretary (in con-
10	sultation with the Secretary of Energy) shall
11	update the sustainability scoring and the sus-
12	tainability score averages established under sub-
13	paragraph (A) not less frequently than once
14	every 5 calendar years.
15	"(E) Advisory Board.—The Secretary
16	shall establish a volunteer board that advises
17	the Secretary on the sustainability score devel-
18	opment and updates. Such board shall be ap-
19	pointed at the discretion of the Secretary and
20	shall include experts in relevant fields, including
21	energy, construction, transportation, agri-
22	culture, and labor.
23	"(c) Other Definitions and Special Rules.—

1	"(1) Purchase price.—The term 'purchase
2	price' means so much of the adjusted basis of the
3	property as is not attributable to land.
4	"(2) Remodeling price.—The term 'remod-
5	eling price' means the price of remodeling or expan-
6	sion of a property, as defined by the Secretary after
7	consultation with the Secretary of Energy.
8	"(3) Qualifying building or residence.—
9	The term 'qualifying building or residence' means,
10	with respect to a taxpayer—
11	"(A) any dwelling unit first used as a resi-
12	dence by the taxpayer, or
13	"(B) any other building or structure of a
14	character subject to the allowance for deprecia-
15	tion and first placed in service by the taxpayer.
16	"(4) Construction.—Any qualifying building
17	or residence constructed by the taxpayer shall be
18	treated as purchased by the taxpayer on the date the
19	taxpayer first occupies the residence, or places such
20	building in service, as the case may be.
21	"(5) Transfer of credit.—
22	"(A) IN GENERAL.—If a taxpayer elects
23	the application of this paragraph for any tax-
24	able year, the amount of credit determined
25	under this section for such year which would

(but for this paragraph) be allowable to the taxpayer shall be allowable to the person designated by the taxpayer. The person so designated shall be treated as the taxpayer for purposes of this title.

- "(B) TREATMENT OF AMOUNTS PAID FOR ASSIGNMENT.—If any amount is paid to the person who assigns the credit determined under this section, then no portion of such amount shall be includible in such person's gross income.
- "(6) Basis adjustment.—For purposes of this subtitle, if a credit is allowed under this section with respect to any qualified building or residence, the basis of such building or residence shall be reduced by the amount of the credit so allowed.

"(7) APPLICATION WITHOUT CREDITS.—

"(A) Business credit treated as part of general business credit.—So much of the credit which would be allowed under subsection (a) for any taxable year (determined without regard to this paragraph) that is attributable to property of a character subject to an allowance for depreciation shall be treated as a

1	credit listed in section 38(b) for such taxable
2	year (and not allowed under subsection (a)).
3	"(B) Personal Credit.—For purposes of
4	this title, the credit allowed under subsection
5	(a) for any taxable year (determined after ap-
6	plication of subparagraph (A)) shall be treated
7	as a credit allowable under subpart A for such
8	taxable year.
9	"(8) Carbon Storage Certification.—
10	Under the certification process established under
11	subsection (b)(2)(A), the Secretaries shall addition-
12	ally establish a process for certifying to the taxpayer
13	the amount of carbon dioxide stored by a building or
14	residence as determined under (b)(2)(B)(iii).".
15	(b) Clerical Amendment.—The table of sections
16	for subpart B of part IV of subchapter A of chapter 1

18 lowing new item:

"Sec. 30E. Sustainable building and residence credit.".

19 (c) Effective Date.—The amendments made by 20 this section shall apply to property purchased after De-21 cember 31, 2020.

17 of such Code is amended by adding at the end the fol-

1	SEC. 303. CLARIFICATION OF RESEARCH AND DEVELOP-
2	MENT PROGRAM FOR CELLULOSIC BIO-
3	CHEMICAL AND BIOPLASTICS.
4	(a) In General.—The Secretary, acting through the
5	Research and Development deputy area and the State and
6	Private Forestry deputy area of the Forest Service, shall
7	conduct performance-driven research and development and
8	provide for education and technical assistance for the pur-
9	pose of facilitating the use of cellulosic biochemical and
10	bioplastics products in the United States.
11	(b) Activities.—In carrying out subsection (a), the
12	Secretary shall—
13	(1) after collaboration with the forest products
14	industry, conservation organizations, and institutions
15	of higher education, conduct research and develop-
16	ment and provide for education and technical assist-
17	ance at the Forest Products Laboratory or through
18	the State and Private Forestry deputy area that
19	meets measurable performance goals for the achieve-
20	ment of the priorities listed in subsection (c); and
21	(2) after coordination and collaboration with
22	the entities referred to in paragraph (1), make com-
23	petitive grants to institutions of higher education for
24	such institutions to conduct research and develop-
25	ment and carry out educational programs and pro-
26	vide technical assistance.

1	(c) Priorities.—In awarding grants under sub-
2	section (b)(2), the Secretary shall give priority to applica-
3	tions from institutions of higher education proposing
4	projects—
5	(1) to address ways to improve the commer-
6	cialization of cellulosic biochemical and bioplastics
7	products;
8	(2) for the conduct of applied research, includ-
9	ing projects designed—
10	(A) to bring products from benchtop to
11	production scale; and
12	(B) for end-of-life reuse, recycling, and dis-
13	posal of the project;
14	(3) which, based upon the lifecycle analysis of
15	forest carbon stock developed under section 105(c),
16	will lead to an increase in forest carbon stock
17	through the extraction of raw materials through the
18	manufacture of biochemical and bioplastics products;
19	or
20	(4) to address one or more other research areas
21	identified by the Secretary, in consultation with con-
22	servation organizations, institutions of higher edu-
23	cation, and the forest products industry.
24	(d) Timeframe.—To the maximum extent prac-
25	ticable, the measurable performance goals for the research

- 1 and development, education, and technical assistance
- 2 under subsection (a) shall be achievable within 5 years.
- 3 (e) Definitions.—In this section:
- 4 (1) CELLULOSIC BIOCHEMICAL PRODUCT.—The
- 5 term "cellulosic biochemical product" means any
- 6 biochemical, including bioethanol and its derivatives,
- 7 that is derived from wood or plant cellulose fiber.
- 8 (2) Cellulosic bioplastics product.—The
- 9 term "cellulosic bioplastics product" means any bio-
- plastic that is derived from wood or plant cellulose
- 11 fiber.
- 12 (3) Institution of Higher Education.—The
- term "institution of higher education" has the
- meaning given such term in of sections 101 and 102
- of the Higher Education Act of 1965 (20 U.S.C.
- 16 1001 and 1002).
- 17 SEC. 304. TRIBAL AND ALASKA NATIVE BIOMASS DEM-
- 18 ONSTRATION PROJECT EXTENSION.
- 19 (a) Tribal Biomass.—Section 3(a) of the Tribal
- 20 Forest Protection Act of 2004 (25 U.S.C. 3104 note) is
- 21 amended by striking "fiscal years 2017 through 2021"
- 22 and inserting "fiscal years 2021 through 2025".
- 23 (b) Alaska Native Biomass.—Section 202(c)(2) of
- 24 the Indian Tribal Energy Development and Self-Deter-
- 25 mination Act Amendments of 2017 (25 U.S.C. 3104 note)

- 1 is amended by striking "fiscal years 2017 through 2021"
- $2\,$ and inserting "fiscal years 2021 through 2025".

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