

A BILL

For the United States to participate in a global climate stabilization program.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE: TABLE OF CONTENTS.

(a) Short Title. This Act, with the following table of contents, may be cited as the "Emergency Climate Stabilization/Earth Regeneration Act of 1988."

(b) Table of Contents.

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SEC 2. PURPOSES

The purposes of this law are to establish a process whereby the Congress and the President of the United States shall cooperate, in a national and international program, to

(a) reduce heat, drought and subsequent famine, forest fires and tornadoes; and decrease the freezing extremes, snow buildup, flooding, cloud cover, and storms in the winter;

(b) promote earth regeneration, including reforestation, soil remineralization, conservation, alternative energy technology development and stopping deforestation; and

(c) strive for climate stabilization by reducing atmospheric carbon dioxide and thereby holding off the warming/cooling extremes, i.e., the transition into another glacial period (ice age).

SEC. 3. PROBLEM STATEMENT AND SOLUTIONS

(a) Accelerating planetary climate conditions. Human technological activity is accelerating the rate of carbon dioxide buildup in the atmosphere. The net result of this buildup is to speed up a shift of global climate toward increasingly extreme and variable weather conditions. If this shift continues, destruction of lives and property and transition past the point of no return into a glacial period will follow, according to geological evidence on past glacial periods. It is the consensus of a majority of workers in the field of ecology that we are now in a period of ecological destabilization that, given the time and effort needed to stabilize climatic conditions, constitutes an ecological emergency. We are confronted with the dual problem of converting those human actions which are now increasing atmospheric carbon dioxide (CO₂), and at the same time working to stabilize the earth's natural glacial/interglacial cycle through human effort.

(1) "Destruction of lives and property" refers to the effects a carbon dioxide-induced climate shift is having upon agriculture and the

technology base, world-wide.

(2) "Point of no return" refers to the point past which the shift of climate into a glaciation cycle is no longer humanly controllable.

(3) "Glaciation period" refers to the shift of global weather patterns to conditions of planetary glaciation lasting approximately 70,000 to 110,000 years.

(b) Given that the earth is already into the transition into a glacial period, and that soil, forest and climatic changes are already occurring -- which include abnormal weather patterns and acid rain -- a coordinated, international, emergency climate-stabilization program is imperative.

(1) "Climate stabilization" means reduction of atmospheric carbon dioxide to levels low enough to prevent transition into a glacial period (reduce from the present 350 parts per million to 280 ppm or less).

(A) The mechanism of this transition involves carbon dioxide heat-trapping -- known also as "The Greenhouse Effect." "Greenhouse" heat-trapping has dual effects; in the lower latitudes, higher temperatures increase evaporation of water; as moisture-laden air moves to higher, cooler latitudes, it condenses and produces increased cloud cover, general cooling, precipitation, and snow buildup. Thus, "greenhouse heat-trapping" leads to drought and famine in the lower latitudes and glaciation and crop destruction from storms and freezing in the higher latitudes; it is thus the mechanism of both increasing temperature extremes and climate destabilization. Since carbon-dioxide buildup has been increasing exponentially since early in this century, it is expected that "greenhouse effects" will accelerate exponentially as well, and the transition into glaciation will be rapid and is already in progress.

(B) Climate stabilization is to be accomplished through a program of ecosystem regeneration which re-establishes balance between atmospheric carbon dioxide and other gases which interact to influence atmospheric conditions. The primary means to re-establish this balance is large-scale soil remineralization, which supports the regeneration of planetary vegetation and significant natural carbon sinks, which remove atmospheric CO₂. Additional and essential means of climate stabilization include reforestation, saving swamps and estuaries, and rapid and extensive reduction of fossil fuel consumption through conservation and development of alternative energy technology.

(2) "Soil remineralization" means adding rock dust, with appropriate proportions of minerals and trace minerals, to the soil. Remineralization has been shown to support the growth of microorganisms and plant life that transforms atmospheric carbon dioxide to carbon (tree trunk and branches are approximately 45% carbon) and oxygen (maintains the world's oxygen supply).

(3) "Program of ecosystem regeneration" means a program of sufficient magnitude and of such timing as to permit climate stabilization before climate conditions preclude action. This includes major reductions in activities that produce CO₂, such as fossil fuel consumption; and in activities that impair natural mechanisms for removing CO₂ from the atmosphere, such as forestry practices that reduce forest acreage beyond minimal requirements for fuel and building materials. It also involves replacing improper agricultural practices that deplete the soil, such as

use of petrochemical fertilizers, pesticides and herbicides, with methods of sustainable agriculture that enhance soil fertility, such as remineralization/organic ("R/O") agriculture.

(c) The key time period is not an overall program of 15 or 20 years, but the next one, three, and seven to ten years (solar thermal electric power plants can be built in three years, and trees can become significant removers of CO₂ in about six years). In six to nine years we will probably find out if we can reduce CO₂ in the atmosphere and avoid going beyond the point of no return, when the increasing snow cover no longer melts off in the summer, glacial growth accelerates, and the destruction of crops, facilities, and people becomes global.

SEC. 4. IMPLEMENTATION OF A CLIMATE STABILIZATION PROGRAM

(a) Proposed Response to Changing Planetary Climate Conditions.— Organization and implementation of a Climate Stabilization program (hereinafter referred to as "the Program") shall commence upon enactment of this legislation.

(b) Objectives.— Obtain and publish information on world climatic conditions.

(1) Establish information development and processing centers on resources, changing environmental conditions, and progress of the Program.

(2) Establish a climate program, with a central body responsible for coordinating and gathering required data, and making the data available on a quarterly basis. The National Oceanic and Atmospheric Administration (NOAA) may be the logical agency for the U.S. The U.S. shall cooperate to the fullest extent with appropriate international bodies regarding global data outside the U.S. A full scale data program as indicated below should be started immediately, and be functioning by the end of 1988 on an emergency basis. Major data should include, but not be limited to:

- (A) Snow cover, depth and volume of snow.
- (B) Sea ice, arctic and antarctic.
- (C) Land surface air temperature.
- (D) Rural surface air temperature.
- (E) Sea surface temperature.
- (F) Troposphere temperature (1 1/2 to 10 km.).
- (G) Stratospheric air temperature (15 to 20 km.).
- (H) Cloud cover and optical characteristics.
- (I) Precipitation.
- (J) Mapping of soil mineral quality — as it bears on forest and crop conditions.
- (K) Desertification.
- (L) Trends in land use: forest and swamp cover. Derive CO₂ source and sink data — key elements of the system.
- (M) Forest fires and dying forests.

(3) Establish information analysis centers regarding losses due to specified environmental conditions, listed below but not limited to:

- (A) Record heat spells
- (B) Drought
- (C) Storms with heavy rain and wind
- (D) Floods
- (E) Landslides
- (F) Tornadoes and hurricanes
- (G) Record cold conditions

- (H) Abnormal frost and freezing conditions
- (I) Blizzards
- (J) Snowstorms
- (K) Snow and ice buildup
- (L) Shorter growing seasons
- (M) Forests dying out
- (N) Forest fires
- (O) Forest and agricultural insect infestation
- (P) Acid rain, lake and other damage
- (Q) Earthquakes
- (R) Volcanic action

(c) Assess and publish information on developing climate conditions and their effects upon life on Earth, of which human life is an interdependent part.

(1) Data will be used to track and analyze the losses of food crops, utilities, buildings, roads, trees, production facilities of all types, human life, and elements of the technological infrastructure. The type and magnitude of destruction over the past ten years shall also be reviewed.

(2) When volcanic eruptions occur, the contribution of volcanic ash to soil remineralization for crops and first growth shall also be reviewed. An appropriate inter-agency force shall be established to coordinate the U.S. information, analysis, and reports.

(3) The magnitude and rate of future breakdown of technological systems due to climate shift shall be estimated on a periodic basis.

(d) Develop an overall plan of action for climate-stabilization. The system of Universities shall establish interdisciplinary councils to develop a comprehensive plan for a Climate Stabilization/Earth Regeneration Program. This plan will suggest forms of participation for each local level: city-wide, county-wide, state-wide, national, and global. These interdisciplinary councils may collaborate and will submit relevant aspects of the plan directly to the Climate Stabilization/Earth Regeneration Board at the Cabinet level, and to each local level for approval and/or feedback and adjustment. Implementation responsibility shall lie with CO/2 Councils and their respective local governments (see Section 5. c.)

(e) Prepare preliminary federal, state, county, and city plans at the earliest possible time.

(f) Set goals for the U.S., subject to ongoing review, public discussion, policy development, and periodic revision. These goals shall determine:

(1) Quantity and quality of rock dust and other amendments to be applied to soil. Sufficient rock dust shall be applied for at least five years of forest or crop growth.

(2) Land area to be covered by application of rock dust.

(3) Priorities for areas to be treated with rock dust to gain the greatest benefit. The goal is to obtain the greatest CO/2 reduction for the effort put forth.

(g) Establish policies that support the Program.

(1) The right to life, liberty and the pursuit of happiness depends upon the stability of the climate, and therefore, upon an effective Earth Regeneration Program.

(2) International participation, in cooperation with all established world bodies, to maximize the primary activities of soil, forest and energy work and reduction of atmospheric carbon dioxide.

(A) This means preferential support of countries where forests can be grown the fastest, including helping to stabilize the daily lives of the people in those countries so that they can carry out the Program in their areas. The security of our technological and agricultural infrastructure depend ultimately upon the condition of the soil and forests everywhere in the world.

(B) Urge and assist other countries to set global tree planting targets. One way to set such targets would be to define removal of atmospheric carbon dioxide. Remove over 100 quadrillion (100 times ten to the fifteenth power) grams of carbon from the earth's atmosphere (or stated as over 100 billion tons) in 30 years by planting, or increasing the growth rate of existing forests, in the amount of approximately 500,000 square kilometers per year. Reforestation is an integral part of the transition from fossil fuel to conservation and alternative energy technology development [see Sec. 3(b)(1)(B), 3(b)(3); Sec. 4(f); Sec. 6(c); Sec. 8(b,c)]. The goal is to reduce the atmospheric carbon dioxide from the current 350 parts per million back to the 280 ppm, which is the upper limit over the last 10,000 years of the interglacial period. Actual achievement may be more than this, as all possible forces are brought into action to replace the damage to forests over the last 2500 years, deterioration of the soil, and to replace fossil fuel with alternatives.

- (h) Establish agencies as necessary to coordinate a climate-stabilization program [see Sec. 5(b)5].
- (i) Provide resources to support a climate-stabilization program [see Sec. 5(c)].
- (j) Plan and coordinate U.S. actions to help stabilize world-climatic conditions.

(1) Start emergency work projects and continue them until they are superceded by more permanent programs.

(2) Establish and carry out CO₂ budgets and set plans for reduction by region. Quantify the process in order to measure progress by ongoing, thorough analysis. A "CO₂ budget" is a planning and control document to show estimates of net CO₂ output per year. CO₂ budgets shall show (1) current rates of CO₂ increase or decrease by source and (2) planned reductions for each of the next five years [see Sec. 8(c)].

(3) Redevelop and expand forests. Each local Program shall produce a species plan to show the species of trees appropriate for each area and the area and number of trees to be planted over the first five years.

(4) Prepare estimates for additional net growth of existing remineralized forests and of newly planted forest areas.

(5) Develop, enhance, and mass-produce remineralization technology. Such technology shall include equipment to manufacture rock dust and equipment to apply it to the soil.

(6) Implement changes in industry, transportation, energy technology, and agriculture that support the Program.

(k) Enlist cooperation by both the public and the private sector. Since the entire human population of approximately five billion people may become at risk, this Act is dealing with a public good and a major portion of the activity will be through the public sector. The private sector will operate through such markets as crops, energy equipment, and energy produced from alternative sources.

(1) Full employment of people, together with the necessary physical resources to carry out the soil, forest, and energy work. The Program hereby becomes a central theme of productive activity of the people of the U.S. until such time as we restore earth-atmosphere balance and hold off the transition into a full glacial period.

(2) It is the resolve of this Congress to use every resource possible to achieve the goal: continuation of our civilization as we know it, continuation of the best of our civilization. Such full employment for climate stabilization can only come about in a climate of international cooperation.

(3) Use private and government enterprises to provide the rock grinding equipment necessary to produce rock dust where, when, and in the quantities needed, as stated in Sec. 3(b)(2) above, and 4(f).

(4) Implement plans of action with support from the city, county, state, and/or federal level, according to the sphere of influence and degree of effectiveness. Recruitment of labor shall come from the ranks of the unemployed, the military, volunteer organizations, and the public at large.

(1) Curtail counter-productive technological practices.

(1) Reduce use of fossil fuels through conservation and development of alternative energy technology other than radioactive nuclear, e.g., solar thermal electric, solar heating and cooling, wind electric facilities, alcohol fuel, hydrogen fuel, geothermal, tidal and other appropriate and benign sources. Reduction goals are to be stated in British Thermal Units (BTUs) of energy saved per year through conservation, and operation of alternative energy technology.

(2) Close off fossil fuel development projects, such as off-shore oil drilling and Alaska's "section 1002".

(3) Reduce present operating oil wells and coal burning facilities as alternative energy technology sources are developed.

(4) Limit cutting of trees for timber and fuel. Stop, as completely as possible, the clearing of forests for agricultural, industrial, or residential use of the land.

(5) Plan, on a year to year basis, for the reduction in use of toxic and radioactive materials that are harmful to living tissue. Polluting and toxic materials add to the growing minor and major illness in the population and limit the extent and effectiveness of a maximum Program. The health of all people is inextricably tied to climate stabilization, their individual and collective survival. Out of this Program will come a more clear understanding and statement of people's right to health.

(m) Support and protect fitting technology and ecologically-sound practices.

(1) Protect such types as agricultural technology that supports remineralization, and energy technology that improves the efficiency with which petrochemical fuels are used or develops alternative, ecologically-sound energy technology.

(2) "Ecologically-sound energy technology" means energy technology development whose waste products are recyclable by the ecosystem and whose ecological effects are within the tolerances of the ecosystem for supporting life native to this geological period.

(3) Provide funding to support development of alternative, benign energy technology [see Sec. 9].

(4) Formulate and implement more fitting waste management policies, e.g., composting of urban solid waste and addition of this material back to the soil in the region in which it is generated, or as close as possible. This type of goal, on a year by year basis, is essential to the primary Program. It saves money in the urban area which can be used for the local Program. It reduces energy used in hauling to distant landfills and pollution from the additional transportation or burning of waste.

(n) Manage the socio-economic requirements of the Program.

(1) Train or retrain people to work on soil, forest and energy projects. Education programs will need to be expanded and revised to include aspects relating to the Program. Workers in industries in which activity will be reduced will need a certain amount of retraining in order to take assignments in soil, forest or energy jobs. People who are unemployed, partly, or marginally employed, will also need orientation, preparation or specific retraining.

(2) Maintain local communities. Local communities shall be assisted so that people working in a local Program can continue to live in the area with their roots, their families and their neighbors. For example, miners and representatives of coal miners' unions shall be part of the city, county and state CO/2 councils in areas where there is coal mining, and also part of the national CO/2 council.

(o) The United Nations Charter is the law of the U.S. by treaty. The following sections particularly need to be applied by the U.S. to implement a climate stabilization Program.

(1) Articles 2.3 and 2.4 of the UN Charter require that member nations settle their international disputes by peaceful means and do not use force or threat of force.

(2) Articles 55 and 56 included the section which states that "the UN shall promote: (a) higher standards of living, full employment, and conditions of economic and social progress and development."

Sec. 5. ORGANIZATION -- Organizational Structure of Agencies Implementing the Program.

(a) Congress shall establish a joint Senate and House Supervisory Committee to review and guide the national Program.

(b) A "Climate Stabilization/Earth Regeneration" Cabinet position and Board shall be established and report directly to the President.

(1) The Board shall have twenty-four (24) or more members. An increase in the size of the Board above 24 members shall be subject to Board approval.

(2) The Chairperson shall be appointed by the President and approved by Congress, a majority vote in the House and Senate.

(3) Board members shall be selected as follows: three (3) by the U.S. House of Representatives, three (3) by the U.S. Senate, one (1) by the National Governors' Association, one (1) by the U.S. Conference of Mayors, and at least fifteen (15) general members from labor, business, ethnic, environmental, science, and other citizen groups. The general members shall be chosen by the Chair and the six Congressional members.

(4) Board members shall serve for a term of six years and can be replaced at any time by the body selecting them, except for the general members, who can be replaced by majority vote of the Chair together with the six Congressional members.

(5) The Board shall be responsible to the President for the National Program, for ensuring the participation and coordinating the work of involved government agencies, such as the Departments of the Interior, Defense, Energy and State; NASA, NOAA, and others, so as to maximize the U.S. Program.

(6) The Board shall have appropriate staffing and funding to carry out its responsibilities. Additional legislative support for the program will be developed as the Program progresses.

(c) CO₂ Councils shall be established to plan, implement, review, maintain and revise the Program at the state, county, and city levels; they shall have sign-off responsibility for the Program at each level and shall coordinate with the other levels. Governmental units at each level shall be responsible to establish these Councils at their respective level. Council members shall represent local governments, trade unions, industry and other citizen groups.

(1) Climate stabilization shall be approached in an interdisciplinary manner. Over twenty-five (25) fields of science are involved, related to: the rock and soil of the earth, forests, swamps, deserts and other aspects of the biosphere; the warming and cooling of the earth's atmosphere, differential effects of CO₂ in the lower and higher latitudes, weather patterns, oceanic temperatures. Integration of every appropriate scientific and lay discipline by people world-wide, from development and implementation of technology to motivating the public, is needed to stabilize the climate, and to minimize the destruction produced by rapidly changing climate now already under way.

(2) Proposals for measures to prevent or minimize technological damage and to maintain the technological and agricultural infrastructure shall be prepared for submission to CO/2 councils.

(3) Effects of climate change on breakdown of technological systems (including utilities, transportation, communication, and industry) shall be estimated, monitored, and reported.

SEC. 6. DISTRIBUTION OF RESPONSIBILITY FOR IMPLEMENTING THE PROGRAM

(a) Each city, county (unincorporated areas), state and the federal government shall establish a Program appropriate to its sphere of influence.

(1) City plans shall be combined into county plans and county plans shall be combined into state plans, with responsibility for reviewing and recommending plans of action for plans of each lower level resting with the next higher, coordinating level. State plans shall be combined into the U.S. national plan. Responsibility for reviewing, coordinating, and providing guidance for the state plans shall be the responsibility of the federal agencies responsible for the national Program.

(2) Summaries of interdisciplinary proposals shall, upon approval by each local CO/2 Council, be forwarded to the next higher and lower levels, ultimately reaching, in summary form, the Climate Stabilization/Earth Regeneration Board at the Cabinet level.

(b) Management of funds shall be the responsibility of each CO/2 council, with distribution among lower levels managed by the next-higher level.

(c) Private industry shall participate, to the extent feasible, in ways such as the manufacture and installation of cost and energy-efficient solar thermal electric power facilities that displace CO/2-producing facilities.

(d) Public participation in efforts and enterprises that support climate stabilization shall be supported by the appropriate coordinating level according to the sphere of influence of such public participation. Large scale public volunteer projects shall receive support from the correspondingly higher coordinating levels of the Program. This Program must be supported by a full-employment job program which will also provide support services including food, housing, health and child care, and education. The objective is to mobilize and provide adequate support for the entire working population of the U.S.

(e) It shall be the function of U.S. international agencies, both public and private, to work with the United Nations, UNESCO, and other international organizations in assisting individual countries. The goal is to assist other countries in gathering information, establishing Programs, preparing CO/2 budgets, and in implementing the plans for each region within a country.

SEC. 7. CRISIS MANAGEMENT — Managing the Consequences of Climatic Shift.

(a) Interdisciplinary proposals specifying protective measures to minimize technical damage and to maintain agricultural and industrial production under changing conditions shall be prepared and submitted to CO/2 Councils at the appropriate governmental levels. The U.S. shall cooperate with the United Nations, UNESCO, FAO, all appropriate international bodies, and particularly the U.N. program in formation entitled the International Decade for Natural Disaster Reduction.

(b) Federal and local measures shall be coordinated under a "unified crisis management" centralized operation to coordinate the multitude of agencies currently responding to disasters. The objective is to organize sufficient national response capability as all forms of natural disasters increase and augment each other, such as heat, drought, and fire in the summer.

SEC. 8. EVALUATION — Policies for Evaluating Program Effectiveness.

(a) Public and private agencies shall be funded to provide continuing evaluation of the results, locally and regionally, from climate stabilization activities.

(b) All Environmental Impact Statements and Environmental Impact Reports (local, state, or national) shall have a section stating the impact of the proposed project on CO/2 level. Annual estimates shall be made for increase or decrease in CO/2 for each of five years, starting from commencement of work. Longer estimates shall be provided when the CO/2 impact will be significant beyond a five-year period.

(c) CO/2 Budgets shall be prepared at the city, county, state, and national level to reflect the changes brought about by CO/2 reduction plans. These Budgets shall show estimated annual output of CO/2 by source (transportation, industry, building heating, decaying matter) and the annual reduction of CO/2 resulting from reforestation, soil improvement, energy conservation, and the development of alternative energy sources.

(d) Ecological standards shall be observed. U.S. or United Nations ecological standards shall be obeyed, whichever is higher. No money may be spent, or any secret government fund spent, that violates national or international law. This includes any type of arms testing. Control of all forms of toxic substances will determine the ability of people to work and the effectiveness of the climate stabilization effort.

Sec. 9. FUNDING — Sources of Funding for U.S. Participation; Funding and Energy Policies

(a) Funding of each project shall be provided as follows: Federal government: 80%, state governments: 10%, city or county (if outside of incorporated city areas): 10%.

(b) Funding shall be primarily by transfer within current budget and from increased corporate income taxes.

(1) In 1946, around half of all IRS revenue came from corporate

income taxes. This figure is now down to approximately 8%. A massive increase in corporate income taxes is essential to the Program. Investment will have little meaning if technological systems no longer function and food supplies and labor forces are no longer available.

(2) Transfer of current budget funds shall come primarily from the military as necessary international agreements for disarmament are carried out. The times are of such emergency that actual reduction of arms expenditures is now the main source of funds for our survival in the face of climate change.

(3) More funds will be available in the sense that unemployment, welfare, and illness costs will be greatly reduced under a full-scale Program. The combination of employment, quality of life support for all types of workers, and well-mineralized soil and crops, will provide the basis for significant national health improvement and other benefits/savings.

(c) Utility investments in new facilities shall be redirected.

(1) Utilities shall be required to build alternative energy technologies rather than coal, oil, or conventional nuclear plants. A cost-efficient and energy-efficient solar thermal electric plant, for example, is now operating near San Diego, California (5 megawatt plant built by LaJet Energy Company of Abilene, Texas; another 120 megawatts of small module solar thermal electric plants is also on line in Southern California.) Utilities shall be involved to a maximum extent in energy conservation programs, including co-generation plants.

(2) Incentives shall be developed, as well as assistance, to encourage compliance with Programs.

For further reference or copies of this Bill:

Alden Bryant
470 Vassar Avenue
Berkeley, CA 94708
415-525-4877