

DAVID Y. IGE
Governor

JOSH GREEN
Lt. Governor



PHYLLIS SHIMABUKURO-GEISER
Chairperson, Board of Agriculture

MORRIS M. ATTA
Deputy to the Chairperson

State of Hawaii
DEPARTMENT OF AGRICULTURE
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**TESTIMONY OF PHYLLIS SHIMABUKURO-GEISER
CHAIRPERSON, BOARD OF AGRICULTURE**

BEFORE THE HOUSE COMMITTEE ON AGRICULTURE

**TUESDAY, MARCH 23, 2022
9:00 A.M.
VIA VIDEOCONFERENCE**

**SENATE BILL NO. 2056, SD1
RELATING TO SOIL CLASSIFICATIONS**

Chairperson Hashem and Members of the Committee:

Thank you for the opportunity to testify on Senate Bill No. 2056, SD1 that requires the Office of Planning and Sustainable Development (OP/SD) to conduct a study of the suitability of the State's current soil rating system as developed by the Land Study Bureau. OP/SD may seek the assistance of the Department of Agriculture, the University of Hawaii College of Tropical Agriculture and Human Resources, the Land Use Commission, and the U. S. Department of Agriculture. There is an appropriation, and a report is required prior to the 2023 legislative session.

The Department supports this measure and otherwise defers to OP/SD. We look forward to participating in a comprehensive review of soil quality indexes such as the Land Study Bureau which have significant roles in land use regulation, identifying what agricultural production resources need to be protected, and help to optimize public and private investments that support food sustainability and overall local agricultural production.

Thank you for the opportunity to comment on this important measure.



SB-2056-SD-1

Submitted on: 3/21/2022 11:37:46 PM

Testimony for AGR on 3/23/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Hawaii Department of Agriculture	Hawaii Department of Agriculture	Comments	Remotely Via Zoom

Comments:

Staff will join via Zoom to be available to answer questions on behalf of the Department.

DAVID Y. IGE
GOVERNOR



CRAIG K. HIRAI
DIRECTOR

GLORIA CHANG
DEPUTY DIRECTOR

EMPLOYEES' RETIREMENT SYSTEM
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND
OFFICE OF THE PUBLIC DEFENDER

STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
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ADMINISTRATIVE AND RESEARCH OFFICE
BUDGET, PROGRAM PLANNING AND
MANAGEMENT DIVISION
FINANCIAL ADMINISTRATION DIVISION
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

WRITTEN ONLY
TESTIMONY BY CRAIG K. HIRAI
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE HOUSE COMMITTEE ON AGRICULTURE
ON
SENATE BILL NO. 2056, S.D. 1

March 23, 2022
9:00 a.m.
Room 325 and Videoconference

RELATING TO SOIL CLASSIFICATIONS

The Department of Budget and Finance (B&F) offers comments on this bill.

Senate Bill No. 2056, S.D. 1, requires the Office of Planning and Sustainable Development (OPSD) to conduct a study of the suitability of soil classification systems used to regulate agricultural lands in the State; requires OPSD to submit a report to the Legislature; and appropriates an unspecified amount of general funds for FY 23 to conduct the study.

B&F notes that, with respect to the general fund appropriation in this bill, the federal Coronavirus Response and Relief Supplemental Appropriations Act requires that states receiving Elementary and Secondary School Emergency Relief (ESSER) II funds and Governor's Emergency Education Relief II funds must maintain state support for:

- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and

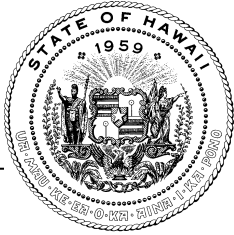
- Higher education in FY 22 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

Further, the federal American Rescue Plan (ARP) Act requires that states receiving ARP ESSER funds must maintain state support for:

- Elementary and secondary education in FY 22 and FY 23 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 and FY 23 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

The U.S. Department of Education has issued rules governing how these maintenance of effort (MOE) requirements are to be administered. B&F will be working with the money committees of the Legislature to ensure that the State of Hawai'i complies with these ESSER MOE requirements.

Thank you for your consideration of our comments.



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

DAVID Y. IGE
GOVERNOR

SCOTT J. GLENN
CHIEF ENERGY OFFICER

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Testimony of
SCOTT J. GLENN, Chief Energy Officer

before the
HOUSE COMMITTEE ON AGRICULTURE

Wednesday, March 23, 2022
9:00 AM
State Capitol, Conference Room 325 & Videoconference

**SUPPORT
SB 2056, SD1
RELATING TO SOIL CLASSIFICATIONS.**

Chair Hashem, Vice Chair Perruso, and Members of the Committee, the Hawai'i State Energy Office (HSEO) supports SB 2056, SD1, which requires the Office of Planning and Sustainable Development (OPSD) to conduct a study of the suitability of the State's current soil overall (master) productivity rating system classified by the Land Study Bureau's (LSB) detailed land classification. This bill also requires a report to the Legislature and appropriates funds.

HSEO agrees with the statement in SECTION 1 of the bill that the LSB system "reflects the agricultural activities of plantation sugar cane and pineapple production that dominated Hawai'i agriculture at the time of the study" and may no longer be appropriate to guide Hawai'i's food and agricultural sustainability goals. Further, the bill references the U.S. Department of Agriculture's national soil classification system as an example of other methods that can be used to classify agricultural soils more appropriately.

Current state law (sections 205-2 and 205-4.5, Hawai'i Revised Statutes) directs the permissibility of solar energy projects on Agricultural land based on the land's LSB rating. However, in some cases the practical use of the lands for agriculture, or co-location of crops or livestock with solar energy projects, is greater or less than indicated by the soils alone. For example, although the soils in one area may have a productivity

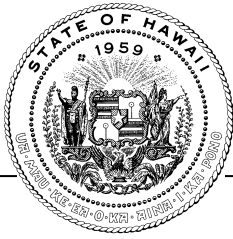
rating that is higher than another area the availability or lack of irrigation water may encourage or constrain the actual productivities of the various sites. The degree to which these factors are captured (or not) in the current system deserves review.

Therefore, HSEO believes a study of the suitability of soil classification systems for the regulation of agricultural lands would contribute to a better understanding of Hawai'i's agricultural lands, systems, potential, and needs.

HSEO defers to the appropriate agency for administration and fiscal matters.

HSEO supports this bill provided that its passage does not replace or adversely impact priorities indicated in the Executive Supplemental Budget.

Thank you for the opportunity to testify.



**STATE OF HAWAII
OFFICE OF PLANNING
& SUSTAINABLE DEVELOPMENT**

DAVID Y. IGE
GOVERNOR

MARY ALICE EVANS
DIRECTOR

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Statement of
MARY ALICE EVANS
Director, Office of Planning and Sustainable Development
before the
HOUSE COMMITTEE ON AGRICULTURE
Wednesday, March 23, 2022
9:00 AM
State Capitol, Conference Room 325 & Videoconference
in consideration of
SB 2056 SD 1
RELATING TO SOIL CLASSIFICATIONS.

Chair Hashem, Vice Chair Perruso, and Members of the House Committee on Agriculture.

The Office of Planning and Sustainable Development (OPSD) **strongly supports** SB 2056 SD1. This measure would appropriate funds and require OPSD to conduct a study of the different agricultural rating systems, including the Land Study Bureau productivity rating system, the United States Department of Agriculture (USDA) soil inventory and other relevant soils rating systems, and determine recommendations for the use of soil classification systems for the regulation of agricultural lands in the State. The measure also provides that OPSD may consult and work with the Department of Agriculture, College of Tropical Agriculture and Human Resources, the Land Use Commission, and with USDA.

The measure indicates that since 1972, a period of fifty (50) years, there has not been a comprehensive soil study or agricultural soil mapping. Further, the Land Study Bureau classification system was based on older style agricultural activities, such as plantation sugar cane and pineapple production. Since that time, plantations have closed, and the type of agriculture practiced within the State has changed significantly.

OPSD believes that a review of the soils rating system is timely and would help to assure that the administration and regulation by State and counties preserve the 'best' agricultural lands. This would help to meet the State's food sustainability goals and to enhance meeting current challenges in agricultural land usage and cultivation by helping to preserve the best agricultural lands in the State for future generations.

Thank you for the opportunity to testify on this measure.



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
House Committee on Agriculture
Wednesday, March 23, 2022 at 9:00 a.m.

By

Nicholas Comerford, Dean
College of Tropical Agriculture and Human Resources

And

Michael Bruno, PhD

Provost

University of Hawai'i at Mānoa

SB 2056 SD1 – RELATING TO SOIL CLASSIFICATIONS

Chair Hashem, Vice Chair Perruso, and members of the House Committee on Agriculture:

Thank you for this opportunity to testify in support of SB 2056 SD1 relating to soil classifications.

As a Soil Scientist and past surveyor in the National Cooperative Soil Survey, and having soil surveyed the foothills of Mount Rainier and the Skagit River Valley in Washington, Dean Comerford has understood the importance and use of soils information in land use planning and agriculture. The Web Soil Survey (<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>) provides digitized soil maps and interpretive information. In addition, the College of Tropical Agriculture and Human Resources has an on-going research project in the Department of Natural Resources and Environmental Management that is evaluating crop suitability for current and climate change environments for a limited variety of crops across the state related to soil type and climate. These resources may be of use.

The University of Hawai'i supports SB 2056 SD1 and thanks you for the opportunity to testify. We defer to the Office and Planning and Sustainable Development as to their determination of their ability and funding to accomplish the task.



Hawaii's Thousand Friends

335 Hahani Street #342132 * Kailua, HI 96734 * Phone/Fax (808) 262-0682 E-Mail: htf3000@gmail.com

March 21, 2022

COMMITTEE ON AGRICULTURE

SB 2056 SD1
RELATING TO SOIL CLASSIFICATIONS

Hawaii's Thousand Friends, a statewide non-profit water and land use planning organization, opposes SB 2056 SD1, which requires the Office of Planning and Sustainable Development to conduct a study of the suitability of the State's current solid overall (master) productivity rating system classified by the Land Study Bureau's detailed land classification.

A new study is not needed. Studies and reports exist that have evaluated soils using many factors not just based on sugar cane and pineapple agricultural activities.

The UH 1972 Land Study Bureau (LSB) produced the A, B, or C overall master productivity rating and was developed concurrently with USDA soil survey. Soils were grouped into land types based on soil and productive capabilities with A, very good to "E" not suitable. The LSB identified an estimated 447,250 acres of A-C agricultural land statewide.

The 1977 DOA Agricultural Land of Importance to the State of Hawaii (ALISH) identified prime, unique or other important agricultural land. The criteria for Unique Agricultural Land and Other Important Agricultural Land were established cooperatively by the US Natural Resources Conservation Service, US Department of Agriculture, and the UH College of Tropical Agriculture.

The 1988 State Land Evaluation and Site Assessment (LESA) Commission established by the legislature in 1983 developed standards and criteria for identifying important agricultural lands (IAL) and inventory important agricultural lands. Three components are: 1) Land evaluation (LE) physical properties e.g. soils, topography, climate, 2) Site assessment (SA) non-physical properties e.g. location, land use and 3) Agricultural production goals to determine acreage needed for crops. Only LE factors have been mapped and digitized in Hawai'i. LESA IAL statewide is 759,534 acres,

LESA under US NRCS and U.S. Department of Agriculture provides a technical framework. In agriculture land evaluation, soils are rated and placed into groups ranging from the best to the least suited for specific agricultural use.

LESA site assessment involves three major areas, not just soil: 1) non-soil factors related to agriculture use of a site, 2) factors related to development pressures, and 3) other public values of a site.

The LESA Commission created maps of Important Agricultural Land (IAL) for all islands. The LESA Maui map is attached.

The 2003 USDA-NRCS Prime Farmland and Irrigated/Drained/Managed Prime Farmland categorized soils as Prime Farmland or Prime Farmland if: irrigated, drained, protected from flooding, or not frequently flooded during growing season. Estimated prime farmland statewide is 527,280.

If the goals of SB 2056 SD1 are *to meet the State's food sustainability goals and enhance local agricultural productivity* by using adequate soil data that information is already available.

What is needed is an evaluation of what land, water and water infrastructure are actually available for agriculture. Such as parcels of less than 15 acres and State owned agricultural lands may be in the agricultural district but may already be development with non-conforming agriculture uses.

For the reasons stated we urge the committee to hold the bill and any funding be used to evaluate the availability of land and water needed to make agriculture sustainable in Hawaii.

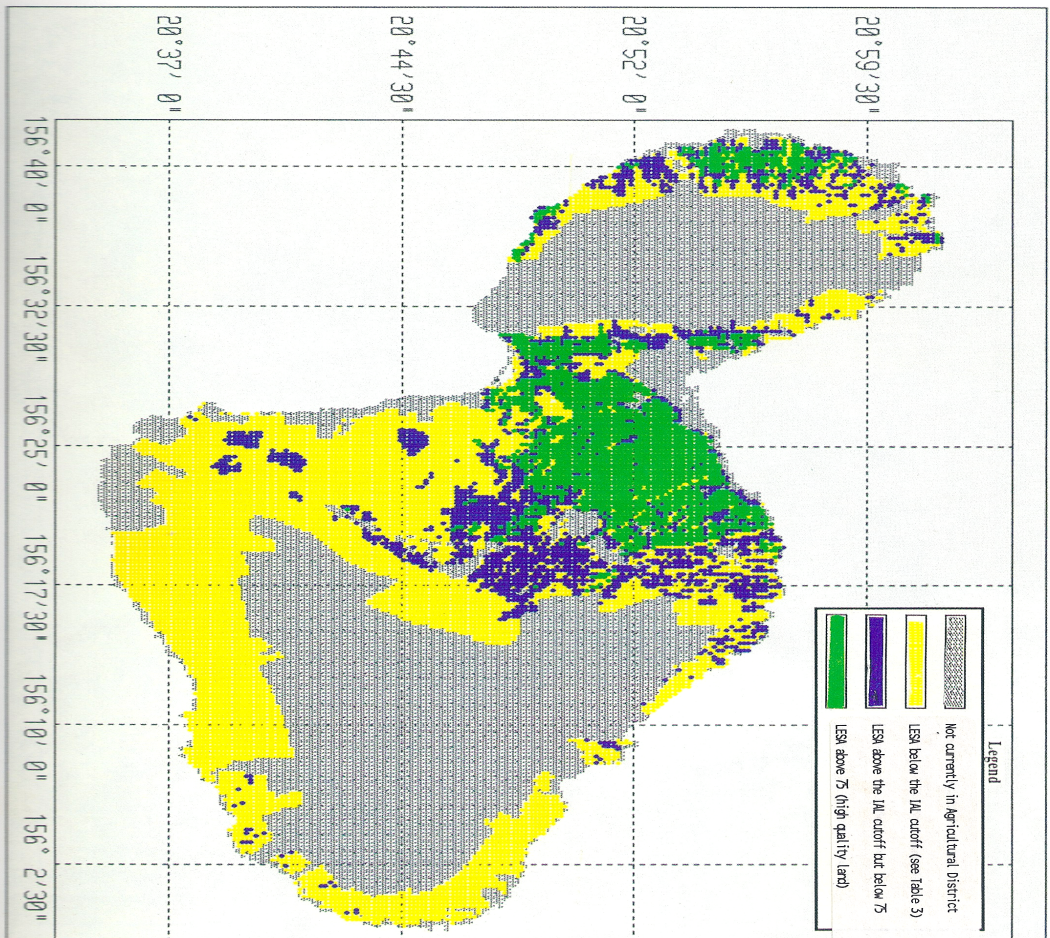


Figure 4. Map of LESA Scores - Maui



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March 23, 2022

HEARING BEFORE THE
HOUSE COMMITTEE ON AGRICULTURE

TESTIMONY ON SB 2056, HD1
RELATING TO SOIL CLASSIFICATION

Room 325 & Videoconference
9:00 AM

Aloha Chair Hashem, Vice-Chair Perruso, and Members of the Committee:

I am Brian Miyamoto, Executive Director of the Hawai'i Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,800 farm family members statewide and serves as Hawai'i's voice of agriculture to protect, advocate and advance the social, economic, and educational interests of our diverse agricultural community.

The Hawai'i Farm Bureau supports SB 2056, SD1, which requires the office of planning and sustainable development to conduct a study of the suitability of the State's current soil overall (master) productivity rating system classified by the land study bureau's detailed land classification.

HFB recognizes and supports the need to review our current soil classification system. We also recognize that in the land category system used today, agriculture was originally the catchall land classification and that some lands included within the agricultural district were not necessarily considered optimal for agriculture. However, agriculture has significantly evolved. Soil classification is no longer the determinant of land good for agriculture. Greenhouses, hydroponics, aquaculture, and aquaponics are just a few of the many types of agriculture that can occur on *all* classes of land (A, B, C, D, E). Some of the best floriculture and hydroponic operations in Hawai'i are on C, D, and E lands. The total environment, including rainfall amount and timing, day and night-time temperatures, wind, and humidity each contribute to whether a particular region is suitable for a specific crop. In many cases, the soil type and even the existing terrain are not determinative of whether farming can exist and thrive.

Thank you for the opportunity to provide testimony on this measure.



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Brynn Foster
North Shore, Oahu

Christian Zuckerman
Wai'anae, Oahu

Vincent Kimura
Waimanalo, Oahu

Anabella Bruch
Kauai

Aloha Chair Hashem, Vice Chair Perruso, and Members of the House Agriculture Committee,

The Hawaii Farmers Union United (HFUU) is a 501(c)(5) agricultural advocacy nonprofit representing a network of over 2,500 family farmers and their supporters across the Hawaiian Islands. As this bill notes, the existing Land Study Bureau productivity classifications are 50 years old. Due to their critical importance in state and county land use decisions an update is well overdue for an update. For these reasons **HFUU strongly supports SB2056 and seeks an amendment to ensure the study considers multifunctional land use (MLU) classification approaches.**

Previous update efforts, such as [HB1120 \(2014\)](#), sought also to assess 'potential alternative systems of classifying and regulating agricultural lands'. As written SB2056 will require study of the suitability of 'other soil classification systems' but does not provide direction on the type of systems to consider. **HFUU seeks the following amendment to direct study towards systems that focus on MLU:**

Amendment 1: Page 2, lines 14-21:

(1) Require the office of planning and sustainable development to conduct a study of the suitability of the land study bureau soil overall (master) productivity rating system and other soil classification systems in the regulation of agricultural lands in the State and make recommendations for the use of soil classification systems for **multifunctional** agricultural land use regulation; and

Beyond soil capacity for agricultural output alone, a robust approach needs to consider the land use potential for myriad functions, inter alia, native forest barriers, hydrological impacts and riparian buffers, community firebreaks, etc. Assessment that considers these facets will further the capacity of land use decision-making to weigh social, environmental, and economic outcomes and goals.

An MLU focused update to our land use considerations would provide a more robust means to inform state land acquisition and leasing that can weigh the values of a proposed private use against manifold public benefits. In short, to persevere and maintain our working lands, we need mechanisms that consider not just productive capacity but the potential outcomes of use. Leasing state lands for the agricultural equivalent of strip-mining reduces our collective capacity to meet our articulated food self-sufficiency goals.

Mahalo for the opportunity to testify.
Vincent Mina President HFUU/HFUF

SB-2056-SD-1

Submitted on: 3/21/2022 5:27:09 PM

Testimony for AGR on 3/23/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Andrea Quinn	Individual	Support	Written Testimony Only

Comments:

Dear Honorable Committee Members:

Please support SB 2056.

Thank you for the opportunity to present my testimony.

Andrea Quinn

Kihei, Maui