

A LOOK BACK AT THIS YEAR'S
ANNUAL MEETING AND SCIENTIFIC CONFERENCE



The **20th Philippine Society of Soil Science and Technology (PSSST) Annual Meeting and Scientific Conference** was organized to showcase soil science as an important discipline in the field of agriculture and its vitality in human's life. Hence, essential to promote and create awareness on the conservation of these significant soil resources.

This event is one way of strengthening collaboration and networking among the different soil science and technology practitioners and also in harmonizing principles for enriching our conservation and management on soil resources. It also provides a great opportunity for showing and sharing research outputs that will definitely contribute in addressing soil related problems.

This 20th PSSST Annual Meeting and Scientific Conference was held at **Bayfront Hotel, Cebu City** on **May 10-12, 2017** with the theme "**Creating Awareness on the importance of Soil Resource Conservation for Human Survival**".

The conference theme was very timely and significant in pursuing President Rodrigo R. Duterte's pledge to enable the farmers and fisherfolk to produce sufficient, safe and affordable food for all Filipinos according to the Department of Agriculture (DA) Secretary, Hon. Emmanuel F. Piñol's message. He also acknowledged the unwavering efforts of the Society to elevate soil science in the public's consciousness. In addition, he pointed out that soil plays an essential role in mankind's survival because it does not only serve as the matrix of our food chain, but also builds up our capability to mitigate the dangers posed by climate change. As the basis for plant growth, soil contributes to the sustenance of both the natural and planted landscape, supporting forests, wetlands, jungles, prairies and grasslands that spawn the planet's amazing plant and animal biodiversity and provide us food, fuel, medicine and raw materials for industry. Containing the fossil fuels that spur climate change when mined, but reduce greenhouse gas emissions when left untouched, soils play an important role in helping us to address climate change.

Secretary Piñol said that he is one with the Society in its advocacy to encourage deeper awareness and concern for the conservation of our soil and water resources. He said that, together with the DA, he would continue supporting the Society's efforts to promote soil science towards the common vision of national food sufficiency and security, increased income and better lives for the rural folk, and the sustainability of the earth's resources and for survival of mankind.



During the opening program, Ms. Geraldine M. Franzia delivered the message of the Department of Agriculture-Regional Field Office VII (DA-RFO VII), on behalf of the Regional Executive Director, Atty. Salvador D. Diputado, LL.M., PhD. In his message, Regional Executive Director Diputado highlighted that over the years, the PSSST has been the staunch ally in the promotion of soil fertility in the pursuit of increased crop production and sustainability. According to him, this year's theme, spells out the important role the Society plays not only for the utilization of soil resources for human survival but most significantly to create awareness on its conservation for sustainability. The Director hoped that the gathering will not only usher exchange of knowledge towards the realization of the theme, but also renew the camaraderie to strengthen the Society's network for effective project implementation. He also took the opportunity to commend the organizers of the event for a successful holding of the conference in Cebu City, bringing as well his wish of productive gathering and wonderful stay in the region, particularly in Cebu City.



Another significant message was extended by Hon. Hilario P. Davide III, Governor of Cebu, through his representative. He expressed his warmest greetings to the PSSST. He picked-out and emphasized that soil is the basic foundation of ecosystem. He also pointed out that it is a critical resource essential for agricultural stability, food security, environmental protection and human health. The Governor hoped that the gathering would provide an excellent platform for an exchange of knowledge, ideas and experiences to further advance soil science and technology in the country and thereby, strengthen the collaboration

and network among its participants for the continuous development and conservation of the Philippine soils. His wish was to have a productive and memorable conference.

Director Angel C. Enriquez, Officer-In-Charge, Director of Bureau of Soils and Water Management (BSWM) and Ex-Officio member of the Board of Trustees(BOT) of Philippine Society of Soil Science and Technology (PSSST),as she delivered her speech, she recognized that the past civilizations rose because of soil productivity, but these ancient civilizations eventually fell because



they failed to prevent soil degradation. According to her, we will suffer the same fate if we allow soil erosion, fertility decline, salinity intrusion in irrigated areas, and a host of other crop cultivation practices which are not sustainable. The link between the soil and culture, civilization, livelihood and health is both vital but fragile. For the soil is the foundation of human societies. OIC Director Enriquez added that “the Bureau of Soils and Water Management (BSWM) remains at the forefront to address land degradation and promote sustainable land management through its various programs and projects relating to soil health assessment, improvement and management; organic agriculture; effective watershed management; soil conservation guided farm planning; mapping and land use evaluation, and conduct of research and development studies. Unless we learn to value soils as important agricultural resources, we expose our sensitive agricultural lands to various threats of desertification and degradation”. She pointed out that we should understand that the thin organic layer of top soil sustains life-and this we need to protect and handle with care to sustain agricultural productivity and attain food sufficiency and food security. The OIC Director congratulated the Society and assured the support of the BSWM in strengthening partnership in the PSSST as the sole professional society in the Philippines for soil practitioners engaged in all sub-disciplines of soil science, accredited with the International Union of Soil Sciences.

Dr. Fe B. Perlas, the President of PSSST, gave her warmest welcome to all the participants for the 2017 scientific conference. In her speech, she emphasized that “there is a need for a widespread public education and understanding of soils because of widespread problems such as global warming, dwindling energy supplies, the need to feed an ever-growing human population on a shrinking agricultural land-base and the declining interest in soil science as a profession”. Thus, PSSST continues to capacitate soil scientists in order to promote the advancement of soil science and technology in the Philippines. She said that the conference is a perfect venue to share and exchange knowledge and ideas specifically, about their initiatives in the conservation of the soil resources for human survival. Dr. Perlas believes that the conference will fulfill and meet its objectives towards creating awareness for the proper management of the soil to prevent exploitation, destruction or degradation in order to ensure survival of the human race. On behalf of PSSST, she expressed her sincere appreciation to the unwavering support and cooperation of the men and women behind the successful conduct of the activity: the officers and members of the Board of Trustees (BOT), the Local Organizing Committee (LOC) from the Department of Agriculture-Regional Field Office VII (DA-RFO VII), Bureau of Soils and Water



Management (BSWM), Department of Agriculture-Bureau of Agricultural Research (DA-BAR), other government and non-government agencies and private sector and to all the participants who came all the way from Luzon, Visayas and Mindanao and from neighboring countries.



Based on the Secretariat's record, a total of 244 regular and life members of the society from Luzon (162), Visayas (27) and Mindanao (55) attended the conference. These delegates came from government and non-government agencies, private sector, and State Universities and Colleges (SUCs).



There were two (2) plenary sessions held during the event. The first was focused on the Characteristics and Management of Upland Soils of the Philippines with Dr. Victor B. Asio, a faculty of Visayas State University (VSU) as the presenter.

The second plenary session presenter was Dr. Damasa M. Macandog, a faculty of University of the Philippines – Los Baños (UPLB). She presented a paper entitled "Conserving Soil and Land Resources for Disaster Risk Mitigation using GIS, Remote Sensing, Hydrologic and Agent-Based Modeling, and Participatory Approach".

Meanwhile, Dr. Nora B. Inciong of the Professional Regulatory Board (PRC) presented to all the participants the Republic Act No. 10912, an act mandating and strengthening the continuing professional development program for all regulated professional development council and appropriating funds, therefore, and for other related purposes.



There were six (6) oral presentations (junior category) and sixteen (16) oral presentations (senior category) organized under seven (7) technical sessions. The technical sessions under the junior category focused on the following: (1) Landuse, Suitability and Soil Conservation, (2) Soil Fertility and Nutrient Management and (3) Soils and Climate Change. The oral presentations under senior category were characterized into the following topics: (1) Landuse, Suitability and Conservation, (2) Soil Fertility and Nutrient Management, (3) Soils and Climate Change and (4) Geomorphology and Mapping. Each oral presentation was allotted 20 minutes for discussion and 5 minutes for open forum.

A total of twelve (12) posters were displayed and judged under the Landuse, Suitability and Soil Conservation, and Soil Fertility and Nutrient Management categories. Posters of Students' Soil Science Societies from different State Universities and Colleges (SUCs) were also displayed and judged.

In this conference, the winners under the different categories were as follows:

2017 BEST PAPER AWARD (Junior Category)

1st place

Paper title: "Land Suitability Assessment for Major Crops in Roxas, Isabela"

Authors: Eric Lindbergh C. Inovejas and Federico O. Perez



2nd place

Paper title: "Isolation, Characterization and Identification of Plant Growth Promoting Rhizobacteria"

Authors: Editha V. Evangelista, Jayvee A. Cruz and Florida C. Garcia



3rd place

Paper title: "Soil Fertility Assessment of Agricultural Areas in MSU-Main, Marawi City, Philippines"

Authors: Margie C. Rigor and Juliet C. Bangi



2017 BEST PAPER AWARD (Senior Category)



1st place

Paper title: "Preservation of Organic Carbon in Mangrove Sediments by Reactive Iron"

Authors: Gerald P. Dicen, Carmela A. Garcia, Severino G. Salmo III, Roland V. Rallosandlan A. Navarrete

2nd place

Paper title: "Biotic and Abiotic Processes of Phosphorus Cycling in Acidic P-limited Soil: ^{33}P Tracer Assessment"

Authors: Deejay Maranguit, Natalia Bilyera and YakovKuzyakov

3rd place

Paper title: "Screening and Identification of Plant Growth-Promoting Rhizobacteria and its Impact on Rice (*Oryzopsisativa L.*) Seedling Growth"

Authors: Harry Jay M. Cavite, Jayvee A. Cruz and Ariel G. Mactal



2017 BEST POSTER AWARD

1st place

Paper title: "Development of GIS-Based Soil Fertility Map of Davao del Sur as Guide for Appropriate Fertilizer Recommendation"

Authors: Ronald Allan A. Dimaano, Berna Pastor, Eduardo Diokno, Oscar Sangangbayan, Apolinario Carandang, Oscar Costelo, Dominciano Ramos, Jr., Angel C. Enriquez



2nd place

Paper title: "Is There a Possibility of Heavy Metal Contamination in the Paddy Soils with Long Term Application of Organic Fertilizers?"

Authors: Annie Espiritu and Evelyn F. Javier



3rd place

Paper title: "Isolation and Screening of Potential Nitrogen-Fixing Bacteria and Its Impact to Rice Seedling Growth"

Authors: Josef Mikhail R. Bautista, Ronel T. Aguilar, Jayvee A. Cruz, Trinidad Fernando and Ann Jhudael C. Santos



2017 BEST SOCIETY POSTER AWARD

CENTRAL LUZON STATE UNIVERSITY SOIL SCIENCE SOCIETY



The PSSST also awarded individuals with notable achievements and exemplary services. The awardees are:

2017 ACHIEVEMENT AWARD

DR. IAN A. NAVARRETE



In recognition of his notable achievements in his graduate studies with the research projects carried out in the Philippines adding to the knowledge in understanding the nature and properties of highly weathered soils, land-use change effects on soil organic matter including humic substances and neutral sugar composition, heavy metals and soil degradation.

For his outstanding research in the field of soil science, particularly in understanding the biophysical, chemical, mineralogical characteristics, and fertility constraints of the degraded soils in the Philippines. Such information is important in designing soil management strategies leading to sustainable utilization of problematic soils and decreases the negative ecological consequences of soil degradation.



As recipient of the world-renowned and highly competitive Humboldt Research Fellowship from Alexander von Humboldt Foundation, Germany, an international recognition for his academic and scientific achievements despite his young scientific career, giving opportunity in the conduct of research on '*Changes in soil carbon stocks and mechanisms of carbon stabilization in soils with conversion of secondary forest to grassland across soil types in Leyte, Philippines*', forming part of his promising work for the advancement of soil science.

For his desire to develop research skills of students, as manifested by fully supporting thesis of soil science students at Visayas State University (VSU) to study the 'Soil Degradation in Samar, Island'.

2017 SERVICE AWARD

MR. ALEX J. ESPIRITU (2014-2017)



In recognition of his exemplary services to the Philippines Society of Soil Science and Technology, Inc. (PSSST). His untiring, unselfish and enthusiastic support to the Society resulting to a working team of officers and members in promoting the advancement of Soil Science and Technology in the country.

For serving as Liaison Officer for three consecutive years and dynamic role as Chair of the PSSST Standing Committee on Membership and member of various PSSST Committees during Annual Meetings and Scientific Conferences.



PSSST PRESIDENT'S REPORT

June 2016-May 2017

A. BOARD MEETING

A total of 10 meetings were conducted at the following venue: Bureau of Soils and water Management (BSWM) in Diliman, Quezon City, International Rice Research Institute (IRRI) in Los Baños, Laguna, Central Luzon State University(CLSU) in Science City of Muñoz, Nueva Ecija and at Dr. Cezar P. Mamaril'sRiceview Agro-Resort in Bay, Laguna.



B. PLANS AND PROGRAMS

Thesis Grant Program

The grant provides financial support amounting to twenty thousand pesos (PhP 20,000.00) to Bachelor of Science in Agriculture (BSA) students majoring in soil science after thorough evaluation of submitted thesis proposals anchored on the PSSST's R and D priorities. Funds for this program come from the proceeds (10%) of the annual conference, donations from generous members of the society and private individuals and some colleagues from Thailand and Japan.

The following SUCs have grantees this year: Central Bicol State University of Agriculture (CBSUA), Central Luzon State University (CLSU) and Isabela State University (ISU).

Career Orientation Program

This program encourages 2nd year students taking up Bachelor of Science in Agriculture (BSA) to major in soil science. Members of the Board hop from one University, offering Soil Science as major field for BSA, to another. This year, a Career Orientation Program had been conducted in Central Luzon State University(CLSU) on March 24 and soon after this conference, in Isabela State University (ISU) and Central Mindanao University (CMU).



Capability Development Program

This training program was conceptualized to retool PSSST members with updated tools and approaches in conducting soil science research. The first training program was conducted on September 2016 at BSWM and participated by researchers from DA-RFO I to V, BSWM and BAFS.

Website

The PSSST Website is being maintained to serve as repository of all records/documents of the Society.

External Affairs

The PSSST is represented by at least three members of the Board in the Philippine Association of Agriculturists (PAA). Likewise, there is existing coordination with the Professional Regulation Commission (PRC) with regard to curriculum, Licensure Examination for Agriculturists (LEA) review and license.

International Affairs

The PSSST has collaborative relationship with different international organizations such as the International Union of Soil Sciences (IUSS), the East and Southeast Asia Federation of Soil Science Societies (ESAFS) and the World Association of Soil and Water Conservation (WASWAC).

Annual Meeting and Scientific Conference

The DA-RFO VII co-sponsors the 20thPSSST Annual Meeting and Scientific Conference at Bayfront Hotel, Cebu City on May 10-12, 2017. A Local Organizing Committee (LOC) was organized for the smooth organization and holding of the conference in Cebu City. The LOC consists of the following: Steering, Secretariat, Finance, Program and Invitation, Technical Sessions, Awards, Election, Exhibit, Food and Accommodation, and Socials.

Other Matters

The Board of Trustees (BOT) requested for a room at the BSWM to serve as an office. Unfortunately, the request was denied. The documents are kept in the office of a member of the BOT.



The Board expressed its intent to take charge of the Training of Accredited Plant Nutrition Researchers who handle bio-efficacy trials of fertilizers and other soil amendments from the Fertilizer and Pesticide Authority (FPA). This is still under negotiation.

C. WAY FORWARD

Serve as service provider for continuing professional development for soil scientists.

Create awareness on the importance of soil resource conservation for human survival

- IEC development
- Short term courses
- Training programs

D. BOARD OF TRUSTEES (2016-2017)

DR. FE B. PERLAS – PRESIDENT

MS. SONIA M. SALGUERO – VICE PRESIDENT

MS. ANGELITA C. MARCIA – SECRETARY

MS. CONSTANCIA G. MANGAO – TREASURER

DR. EDNA D. SAMAR – AUDITOR

MS. ROWENA L. CASTILLO – PRESS RELATIONS OFFICER

DR. NENITA E. DELA CRUZ – BUSINESS MANAGER

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MS. REDIA N. ATIENZA

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DR. ARTEMIO A. MARTIN, JR.

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LIAISON OFFICERS

MR. ALEX J. ESPIRITU

DR. VIRGINIA M. PADILLA

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EX-OFFICIO
DIR. ANGEL C. ENRIQUEZ, CESO III

ADVISER
DR. NORA B. INCIONG

ADVISER EMERITUS
DR. CEZAR P. MAMARIL

MINUTES OF THE GENERAL ASSEMBLY AND BUSINESS MEETING

Attendance: Board of Trustees (BOT) and Officers, and the regular and life members of the PSSST.

I. CALL TO ORDER: With quorum, the meeting was called to order by President Fe B. Perlas, PhD at 6:40PM.

II. AGENDA:

1. President's Report

President Perlas presented the accomplishments of the Society for 2016-2017.

The highlights were as follows:

- Thesis Grant program – Thesis support of P20,000 were given to thesis grantees from CLSU (2), CBSUA (1) and ISU (2). The fund for this purpose came from the 10% of the proceeds of the annual conference and from the donations of Dr. Samran and Dr. Inubishi.
- Career Orientation – Orientation was conducted in CLSU and to be conducted in ISU and CMU after the conference to encourage 2nd year students to major in Soil Science.
- Capability Development Program – First batch of the seminar on Soil Science Research Techniques, Methodologies and Statistical Analysis was done on September 29, 2016 at BSWM.



- Details of the accomplishments in each program were presented by the respective Chairs.
2. Ms. Constancia G. Mangao, Treasurer, presented the Financial Report. She discussed the audited financial statement for the period July 2015 to June 30, 2016. The ending balance as of June 30, 2016 was PhP914,693.69. Pres. Perlas reiterated that it was co-sponsored by the BSWM and the DA-RFO V. They provided the counterpart on accommodation, food and logistics support. A question was raised on the thesis support for 3 grantees amounting to only PhP52,000.00. Ms. Marcia explained that the full thesis support of PhP40,000.00 were given to Ms. Juliet Caringal of CBSUA and Mr. Jerickson dela Cruz of CLSU. However, Ms. Vivien Bonifacio only received PhP12,000.00 as initial thesis support. The remaining PhP8,000.00 shall be given upon presentation of the thesis during the conference.
3. **Announcement of election results** was administered and presented by Dr. Virginia M. Padilla, Chairperson of the Election Committee:

- a. The set of Board of Trustees (BOT) and Officers for the year 2017-2018 are as follows:

President:	Dr. Fe B. Perlas (CBSUA)
Vice President:	Ms. Sonia M. Salguero (BSWM)
Secretary:	Ms. Angelita C. Marcia (BSWM)
Treasurer:	Ms. Constancia G. Mangao (Private)
Auditor:	Dr. Edna D. Samar (BSWM)
PRO:	Dr. Artemio A. Martin, Jr. (ISU)
Business Manager:	Ms. Rowena L. Castillo (IRRI)
Members:	Ms. Redia N. Atienza (Senate of the Philippines) Dr. Nenita E. dela Cruz (CLSU) Dr. Ian A. Navarette (AdMU) Dr. Danilo M. Mendoza (UPLB-Biotech)
Liaison Officers:	Mr. Alex J. Espiritu (PhilRice) Dr. Virginia M. Padilla (UPLB) Mr. Sandy B. Abiad (BSWM)



4. **Thesis grant.** Dr. Artemio A. Martin, Jr. presented the important dates to remember for the submission of thesis proposals. He encouraged other universities like CMU, DMMSU, VSU and BSU to submit thesis proposals. Fliers were also distributed to the different SUCs for reference purposes.



5. **Career orientation program.** Dr. Nenita E. dela Cruz reported that there were 50 participants who attended the Central Luzon State University Career Orientation Seminar on March 24, 2017.
6. **Capability development program.** Dr. dela Cruz mentioned some of the identified problems by the participants in the Seminar on Soil Science Research Techniques, Methodologies and statistical Analysis as follows:

- data management/statistical analysis and interpretation
- identification of research studies and its process
- writing final report
- writing introduction and review of literature
- references/limited local literature
- formulating the objectives-SMART
- lack needed expertise in the evaluation of proposals and monitoring



The said seminar held on March 24, 2017 was a success, and looking forward for the schedule of the second batch soon.

7. **International Linkages.** The 13th East and Southeast Asia Federation of Soil Science Societies (ESAFS) Conference will be held on December 2017 in Thailand while the 21st International Union of Soil Sciences (IUSS) Congress will be held on August 12-17, 2018 in Rio de Janeiro, Brazil.



8. Other Matters

a. Update on Bachelor of Science in Agriculture (BSA) curriculum.

Dr. Federico O. Perez reported that the BSA curriculum will be released by May 2017. This will be downloadable from the Commission on Higher Education (CHED) website. It covers 33 units, with 4 courses and 3 electives including Filipino 1 and 2. The new curriculum is an outcome-based education.

b. Position of PSSST on the definition of organic.

Dr. Danilo M. Mendoza facilitated the discussion. Dr. Cezar P. Mamaril gave his definition of organic as anything that is produced is organic/natural. Our environment is not purely organic, due to acid rain for example. He suggested to use the word “natural farming”. Dr. Fe B. Perlas finalized the discussion with the motion of Ms. Sonia M. Salguero, duly seconded to come up with a position paper to serve as input in the amendment of the Organic Agriculture Act.



c. Issue on Chemistry Law in relation to Soil Laboratory Technicians.

Ms. Cyd Gayonan of Central Mindanao University (CMU), informed the body that soil science graduates are restricted from doing laboratory chemical analyses but can only perform physical analyses, weighing and grinding, and STK analysis. This topic ended with suggestion to require a legal document for the discussion.

d. The venue of the 21st PSSST conference was decided upon based on the membership votes.

General Santos City	21
Mindoro Oriental – Calapan City	15
Davao City	35
Surigao del Sur	24



The LOC would be the DA-RFO XI as suggested and approved by the body and accepted by the Region representatives.

- e. Date of the 21st PSSST conference.

May 2-5	102
May 16-19	6
May 30-June 2	1

The 21st Annual Meeting and Scientific Conference will be on May 2-5, 2018 in Davao City as decided upon through the membership votes as shown above.

III. ADJOURNMENT. The meeting was adjourned at 7:30 PM.

