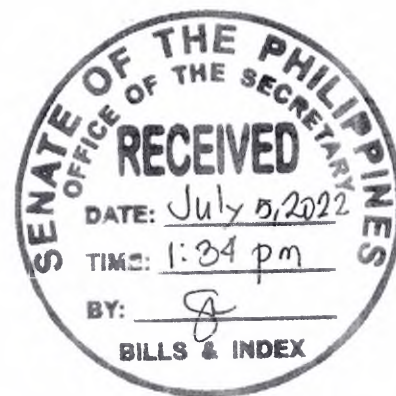


NINETEENTH CONGRESS OF THE)
REPUBLIC OF THE PHILIPPINES)
First Regular Session)



SENATE

S. No. 34

Introduced by Senator Manuel "Lito" M. Lapid

AN ACT
ENHANCING THE RESILIENCY AND ADAPTABILITY OF FARMERS TO
ADVERSE WEATHER AND CLIMATE EVENTS BY INSTITUTIONALIZING THE
USE OF CROP CLIMATE CALENDARS, EQUIPPING FARMERS FOR CLIMATE-
SENSITIVE DECISION-MAKING, AND PROVIDING ACCESS TO LOCALIZED
WEATHER AND CLIMATE INFORMATION

EXPLANATORY NOTE

With almost an average of 20 typhoons passing through our country every year, our countrymen experience the damage and devastation brought about by these adverse weather conditions on a regular basis. The rebuilding, restoration and rehabilitation after every natural calamity, unfortunately, have become a way of life for many Filipinos, especially in disaster-prone areas. Nowhere is this more felt than in the farming sector.

Year in and year out, our agricultural sector suffers billions of pesos in damages due to typhoon, landslides, and floods. In 2019 alone, Php 16 billion worth of agricultural damage was inflicted by typhoons that hit the country, while in 2018 the figure is a staggering Php 34.45 billion.¹ In 2020, the damage caused by just two typhoons, Quinta and Super Typhoon Rolly, amounted to Php 4.6 billion.² In 2021,

¹ Karl R. Ocampo, *Typhoons-inflicted damage to agriculture in 2019 hit P 16B*, Inquirer.net, January 4, 2020 available at <https://business.inquirer.net/286540/typhoons-inflicted-damage-to-agriculture-in-2019-hit-p-16b>

² Ralf Rivas, *Quinta, Rolly wipe out P4.6 billion in agricultural goods*, Rappler, November 3, 2020 available at <https://www.rappler.com/business/agriculture-damage-quinta-super-typhoon-rolly-november-3-2020>

the agricultural damage caused by Typhoon Odette has reached Php 11.5 billion. In these numbers are the lives and livelihood of thousands, if not hundreds of thousands, of farmers and their families further plunging deeper into economic hardship and poverty.

This is why the government must exert all efforts to make our agricultural industry more resilient and adaptive to climate change. Our Department of Agriculture must continuously look into innovative ideas and technologies, as well as the best practices, and determine which should be implemented to help our local farmers withstand the challenges brought about by of climate change and weather disturbances.

This proposed measure aims to contribute to this goal of building a climate-resilient Philippine agricultural sector.

One of the interventions that this bill seeks to institutionalize is the creation and promotion of crop climate calendars for our farmers. According to an April 2020 Philippine Institute of Development Studies (PIDS) study, crop climate calendars serve to supplement traditional crop calendars by incorporating “phenological states, cultivation practices and weather and climate requirements that any crop faces throughout a cropping season”³ in addition to planting and harvest schedules.

A crop climate calendar is defined as “a visual tool that presents the phenology and cultivation practices of a crop against the timeline of the cropping season, containing information on the weather and climate states that occur in the locality and the risks faced by the crop per growing stage in relation to these.”⁴

Under this bill, the Department of Agriculture (DA) shall institutionalize the use of crop climate calendars throughout the Philippines. In coordination with municipal, city and provincial agriculturists, the DA shall equip all farmers and farmer’s

³ Sonny N. Domingo, et al., *Development of Crop Climate Calendars for High-Value Crops in Atok, Benguet: Report from Preliminary Co-Learning and Co-Development Engagements with Agricultural Stakeholders in Benguet Province*, PIDS Discussion Paper Series No. 2020-09 Abstract Page (2020) available at <https://www.pids.gov.ph/publications/7004>

⁴ *Id.* at 1

organizations in the formulation, use and interpretation of crop climate calendars that are tailor-made for each specific locality or community. These crop climate calendars shall be distributed free-of-charge to all farmers and farmer's organizations as well as be made available online, including in social media and similar sites accessible to our farmers on demand.

This bill also mandates the training and capacity-building of farmers and farmers' organizations in climate-sensitive decision-making and the use of relevant tools and applications. These will be done through the Agricultural Training Institute (ATI) of the DA. The formulation of clear, concise and easily understandable charts, tables, diagrams, briefers, and similar documents on climate-sensitive decision-making for distribution to farmers and farmers' organizations is likewise envisioned.

Lastly, the PIDS noted that one of barriers faced by farmers in relation to making the right decisions in "crop choice, crop variety and harvesting" is the "lack of localized weather and climate information that is tailored to the conditions of their locality."⁵

This bill mandates the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) to provide regular and up-to-date localized weather and climate information, in clear, understandable and simple English, Filipino and other regional language or dialect, to city, municipal and provincial agriculturist's offices and directly to the farmers themselves through all available means of communication and information dissemination, such as the internet, social media, television and radio. Localized information in this sense is information that is particularized down to the city or municipal level.

Although currently, the PAGASA reports Climate Information for Agriculture in its website⁶, the same is only presented down to the regional or provincial level with minimal mention of weather information for some cities or municipalities. Moreover,

⁵ Sonny N. Domingo, et al., *Barriers to application of weather and climate information in smallholder vegetable farming in Benguet*, PIDS Discussion Paper Series No. 2020-14 21 (2020) available at <https://www.pids.gov.ph/publications/7021>

⁶ <http://bagong.pagasa.dost.gov.ph/agri-weather#farm-weather-forecast>

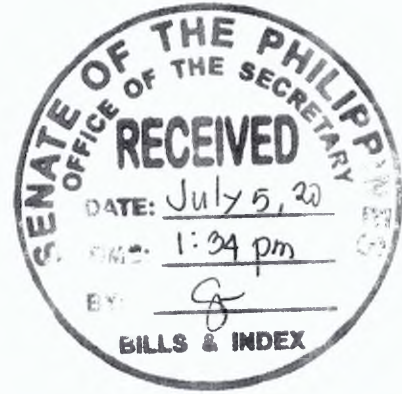
the information is not presented in an easily digestible form and without translation, aside from Filipino) to other regional and local dialects.

In view of this, early passage of this bill is sought.



MANUEL "LITO" M. LAPID
Senator

NINETEENTH CONGRESS OF THE)
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WEATHER AND CLIMATE INFORMATION

*Be it enacted by the Senate and the House of Representatives of the Philippines
in Congress assembled:*

1 SECTION 1. *Short Title.* – This Act shall be known as "Climate-Resilient
2 Agriculture Act."

3
4 Section 2. *Declaration of Policy.* – In recognition of the importance of
5 agriculture in the country's economic development, the State shall enhance the
6 resiliency and adaptability of the sector against the adverse effects of weather
7 disturbances and climate change that endanger productivity levels and harvest yield.
8 Climate resiliency shall be a priority government intervention for the agriculture sector.

9
10 Section 3. *Definition of Terms.* – As used in this Act, the following terms shall
11 be defined as follows:

- 12 a. *Crop climate calendar* - a visual tool that presents the phenology and
13 cultivation practices of a crop against the timeline of the cropping
14 season, containing information on the weather and climate states that
15 occur in the locality and the risks faced by the crop per growing stage in

1 relation to these;

- 2 b. *Climate-sensitive decision* - decisions that hinge on weather and climate
3 states, with final outcomes and even decision alternatives which are
4 varying depending on the prevailing weather phenomena; and
5 c. *Localized weather and climate information* – these are information on
6 weather and climate phenomena that are particularized down to the city
7 or municipal level.

8
9 Section 4. *Crop Climate Calendars.* – The Department of Agriculture (DA) shall
10 establish and promote the use of crop climate calendars throughout the Philippines.
11 In coordination with municipal, city and provincial agriculturists, the DA shall
12 implement a continuing program for all farmers and farmer’s organizations to
13 formulate, use, and interpret crop climate calendars that are tailor-made for each
14 specific locality or community. These crop climate calendars shall be distributed free-
15 of-charge to all farmers and farmer’s organizations and be made available online.

16
17 Section 5. *Climate-Sensitive Decision-Making.* – The DA, through the
18 Agricultural Training Institute (ATI), shall provide regular appropriate training and
19 capacity-building for farmers and farmer’s organizations in the practice of climate-
20 sensitive decision-making and the use of relevant tools and applications. The ATI shall
21 formulate and develop clear, concise and easily understandable charts, tables,
22 diagrams, briefers, and similar documents on climate-sensitive decision-making for
23 distribution to farmers and farmers’ organizations.

24
25 Section 6. *Localized Weather and Climate Information.* – The Philippine
26 Atmospheric, Geophysical and. Astronomical Services Administration (PAGASA) shall
27 provide regular and up-to-date localized weather and climate information to city,
28 municipal and provincial agriculturist’s offices and directly to the farmers themselves
29 through all available means of communication and information dissemination including
30 internet, social media, television and radio. This information shall be written in simple
31 English, Filipino and other regional language or dialect as necessary and must be
32 presented in a clear, concise and easily understandable form.

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Section 7. *Appropriations.* - The amount necessary for the implementation of this Act shall be included in the annual General Appropriations for the year following its enactment into law and thereafter.

Section 8. *Implementing Rules and Regulations.* – Within sixty (60) days from the effectivity of this Act, the DA and PAGASA, in coordination with other relevant government agencies, farmers’ organizations and stakeholders, shall issue the necessary rules and regulations to implement the provisions of this Act.

Section 9. *Repealing Clause.* - All laws, presidential decrees, executive orders, proclamations, rules and regulations, or any part thereof, which are inconsistent with the provisions of this Act are hereby repealed or modified accordingly.

Section 10. *Separability Clause.* - If any provision or part of this Act, or the application thereof to any person or circumstance, is held unconstitutional or invalid, the remainder of this Act shall not be affected thereby.

Section 11. *Effectivity Clause.* - This Act shall take effect fifteen (15) days from its publication in the Official Gazette or in at least two (2) newspapers of general circulation.

Approved,