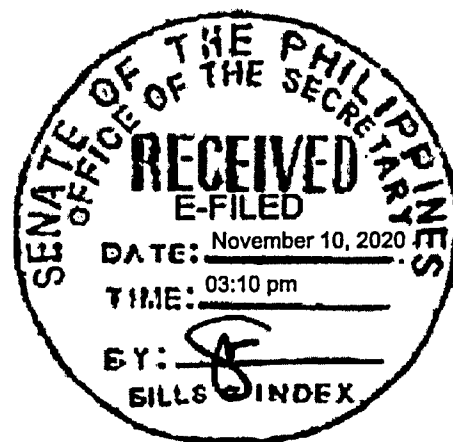


EIGHTEENTH CONGRESS OF THE)
REPUBLIC OF THE PHILIPPINES)
Second Regular Session)

SENATE

S. No. 1912



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 20 typhoons and storms visiting the country every year, the damage and devastation caused by these adverse weather conditions are felt by our citizens almost like clockwork. The rebuilding, restoration and rehabilitation after every natural calamity have become annual rituals, especially on disaster-prone areas. Nowhere is this more felt than in the farming sector. Year in and year out, billions of pesos are lost by the agricultural sector from storms, landslides or flashfloods. 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 This year the damage caused by just two typhoons, Quinta and Super Typhoon Rolly, amounted to Php 4.6 Billion.² Behind these numbers are the lives and livelihood of thousands, if not hundreds of thousands, of farmers and their families plunging into economic hardship and poverty.

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>

This is why the government must exert all efforts to transform the agricultural industry in the country into a state of climate resilience and adaptation. Innovative ideas and technologies, as well as proven best practices, must be tried, tested and eventually implemented to assist our farmers in managing the effects of climate change and weather disturbances.

This proposed measure aims to contribute to this mission of building a climate-resilient Philippine agriculture. One of the interventions that this bill seeks to institutionalize is the availability and use of crop climate calendars by our farmers. According to an April 2020 Philippine Institute of Development Studies (PIDS) Discussion Paper, 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 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.

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. This 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.

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

Lastly, another PIDS Discussion Paper 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 (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, 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

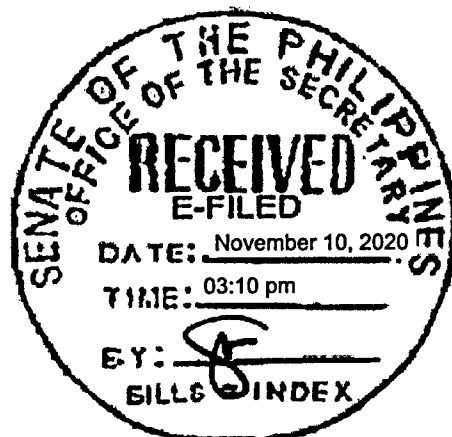
⁵ Sonny N. Domingo, et al., *Barriers to application of weather and climate information in smallholder vegetable farming in Benguet*, PIDS Discussion Paper Series No. 2020-14 21 (2020) available at <https://www.pids.gov.ph/publications/7021>

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

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*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.* – Recognizing the importance of agriculture in
5 the country's economic development, it is imperative that the State shall enhance the
6 resiliency and adaptability of the sector to weather disturbances and adverse climate
7 events that endanger productivity levels and harvest yield. Being a disaster-prone
8 archipelago, climate resiliency must be a priority government intervention for the
9 agriculture sector.

10

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

13 a. *Crop climate calendar* - a visual tool that presents the phenology and

1 cultivation practices of a crop against the timeline of the cropping
2 season, containing information on the weather and climate states that
3 occur in the locality and the risks faced by the crop per growing stage in
4 relation to these;

5 b. *Climate-sensitive decision* - decisions that hinge on weather and climate
6 states, with final outcomes and even decision alternatives which are
7 varying depending on the prevailing weather phenomena; and

8 c. *Localized weather and climate information* – these are information on
9 weather and climate phenomena that are particularized down to the city
10 or municipal level.

11
12 **Section 4. *Crop Climate Calendars.*** – The Department of Agriculture (DA) shall
13 institutionalize the use of crop climate calendars throughout the Philippines. In
14 coordination with municipal, city and provincial agriculturists, the DA shall equip all
15 farmers and farmer’s organizations in the formulation, use and interpretation of crop
16 climate calendars that are tailor-made for each specific locality or community. These
17 crop climate calendars shall be distributed free-of-charge to all farmers and farmer’s
18 organizations.

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

27
28 **Section 6. *Localized Weather and Climate Information.*** – The Philippine
29 Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) is
30 hereby mandated to provide regular and up-to-date localized weather and climate
31 information to city, municipal and provincial agriculturist’s offices and directly to the
32 farmers themselves through all available means of communication and information

1 dissemination (internet, social media, television and radio). This information must be
2 written in simple English, Filipino and other regional language or dialect as necessary
3 and must be presented in a clear, concise and easily understandable form.
4

5 Section 7. *Appropriations.* - The amount necessary for the implementation of
6 this Act shall be included in the annual General Appropriations for the year following
7 its enactment into law and thereafter.
8

9 Section 8. *Implementing Rules and Regulations.* - Within sixty (60) days from
10 the effectivity of this Act, the DA and PAGASA, in coordination with other relevant
11 government agencies, farmers' organizations and stakeholders, shall issue the
12 necessary rules and regulations to implement the provisions of this Act.
13

14 Section 9. *Repealing Clause.* - All laws, presidential decrees, executive orders,
15 proclamations, rules and regulations, or any part thereof, which are inconsistent with
16 the provisions of this Act are hereby repealed or modified accordingly.
17

18 Section 10. *Separability Clause.* - If any provision or part of this Act, or the
19 application thereof to any person or circumstance, is held unconstitutional or invalid,
20 the remainder of this Act shall not be affected thereby.
21

22 Section 11. *Effectivity Clause.* - This Act shall take effect fifteen (15) days
23 from its publication in the Official Gazette or in at least two (2) newspapers of general
24 circulation.
25

26 *Approved,*