

ADMINISTRATIVE ORDER

No. <u>03</u> Series of 2022

SUBJECT:

CREATION OF THE NATIONAL URBAN AND PERI - URBAN AGRICULTURE PROGRAM (NUPAP), A BANNER PROGRAM OF THE DEPARTMENT OF

AGRICULTURE

WHEREAS, the Department of Agriculture (DA) promotes agricultural development and growth through policies, public investments, provision of support services, in partnership with local government units (LGUs) necessary to make agriculture and agriculture-based enterprises profitable and help spread the benefits of development to the poor;

WHEREAS, Chapter 8 of the Philippine Development Plan (PDP), which contains the Strategic Framework to Expand Economic Opportunities in Agriculture, Forestry, and Fisheries, 2017-2022, highlights the government's commitment to promote resilient measures such as urban agriculture and multi-stakeholder partnerships;

WHEREAS, pursuant to Sagip Saka Act (RA 11321), it is a declared policy of the State to achieve sustainable modern agriculture and food security by helping the agricultural and fishing communities to reach their full potential, increasing farmers' and fisherfolks' incomes, and bridging gaps through public-private partnerships, thereby improving their quality of life.

WHEREAS, the Philippines is one of the top countries with the highest urban area population with an estimated forty-seven percent (47%) or 52 million citizens (World Bank, 2020).

WHEREAS, the country is faced with rising pressures due to unstable food supplies, climate change, and growing unemployment as a consequence of the COVID-19 pandemic;

WHEREAS, Urban Agriculture (UA) or the practice of agriculture in limited space in the metropolis, is seen as an intervention in achieving food security and provide alternative source of livelihood;

NOW THEREFORE, this Administrative Order provides the guidelines in the implementation of the National Urban and Peri-Urban Agriculture Program (NUPAP).







SECTION I. INTRODUCTION

A. Rationale

Food security has constantly been under pressure due to the increasing population, losses brought about by natural disasters and prevalence of pests and diseases. These are compounded lately due to the COVID-19 pandemic. Indeed, sustainable actions are required in order to deal with the challenges to food security. Since the majority of the population is generally concentrated in city centers, UA is seen as a sustainable option which can alleviate this wicked problem¹.

Through UA, we will be able to produce food in limited spaces, provide an alternative source of livelihood and aid in solid waste management. This national program will both cover urban and peri-urban in which agriculture shall be practiced within the areas that are located between city and countryside.

By producing food in these areas, the logistics costs are minimized, food safety is ensured, and pressure on rural agricultural systems are eased. Although it does not seek to displace the production in the countryside, it has the potential to temper the seasonal supply of food and make food available year-round.

UA has been launched in the Philippines since 1998, and now through the initiative of DA Secretary William D. Dar, UA is elevated as a Banner Program of the Department of Agriculture which aims to achieve food security.

B. Vision

To make food abundant in urban and peri-urban areas by supporting the establishment of community gardens and farms while increasing awareness on human health through nutrition and inspiring citizens to contribute to innovative, economic and environmentally sustainable food systems towards the uplifting of Filipino communities.

C. Mission

To develop Urban and Peri-Urban Agriculture across the Philippines in collaboration with local government units (LGUs), National Government Agencies (NGAs) and interested stakeholders, in order to foster food security, food safety and promote economic development by ensuring access to food and encouraging UA enterprises that are economically, environmentally and socially sustainable and resilient.

 1 Rittel and Webber's definition of wicked problem (Rittel, H.W.J., Webber, M.M. (1973). Dilemmas in a general theory of planning. Policy Sciences, 4(2), 155-159, https://doi.org/10.1007/BF01405730

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SECTION II. Objectives.

A. Short term (6 months - 1 year) - 2021 to 2022

- 1. Launch information and educational campaigns on NUPAP for public awareness.
- 2. Improve accessibility and supply of food by encouraging planting in own backyard.
- 3. Continue and further develop the existing partnership projects with the NGAs.
- 4. Promote food safety on UA produce.
- 5. Provide continuous training and agri-related livelihood activities such as growing of crops, livestock, and aquaculture production.
- 6. Incentivize UA participants through awards and other forms of recognition.
- 7. Formulate roadmap on UA and develop UA manual.

B. Medium term (1 to 3 years) - 2022 to 2025

- 1. Organize urban farms into formal groups to upscale operations and consolidate/cluster farms.
- 2. Put up pilot corporate urban farming in every region e.g. Vertical Farming, Indoor Farming, etc.
- 3. Establish KADIWA NI ANI AT KITA outlets and market linkages e.g. online selling, linking with institutional buyers (Jollibee, San Miguel, Inc. etc.)
- 4. Establish processing centers for UA and peri-urban produce.
- 5. Establish UA centers/hubs in every region to serve as training and local technology demonstration sites.

C. Long term (beyond 3 years) - beyond 2025

- 1. Establish contracts between clustered/formal groups of urban farmers with buyer/institutional buyers for the continuous supply of produce and ensured markets producers.
- 2. Enable clustered/formal groups to process their produce for domestic distribution and possibly for exports.
- 3. Enhanced capacity of urban farms to augment local supply for vegetables and fruits and engage them in livestock and aquaculture activities.
- 4. Enhance capacity to supply needs of the government during emergencies/disasters (e.g. food packs).
- 5. Promote healthy lifestyle and enhance nutrition status at the locality by consuming vegetables and fruits, especially for children of 5 years old and above.

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SECTION III. Scope.

The DA NUPAP covers urban areas and peri-urban areas. As per definition of the Philippine Statistics Authority (PSA), all barangays in the National Capital Region are automatically classified as urban if it falls under the following:

- 1. It has a population size of 5,000 or more, or;
- 2. It has at least one establishment with a minimum of 100 employees, or;
- 3. It has 5 or more establishments with a minimum of 10 employees, and 5 or more facilities within the two-kilometer radius from the barangay hall.

Outside NCR, areas that are considered peri-urban areas, according to the United Nations Educational, Scientific and Cultural Organization, are "zones of transition from rural to urban land uses located between the outer limits of urban and regional centers and the rural environment".

SECTION IV. Implementation Strategy.

A. Communities of Support

The DA NUPAP aims to initiate and enhance existing efforts of the government and integrate these activities towards the goal of food availability and accessibility and public-private partnerships as championed by Secretary William Dar in his "New Thinking" in agriculture. It also complements the efforts of the DA to organize farmers including the urban setting and enable them to engage in sustainable and economically-viable production and value-adding activities.

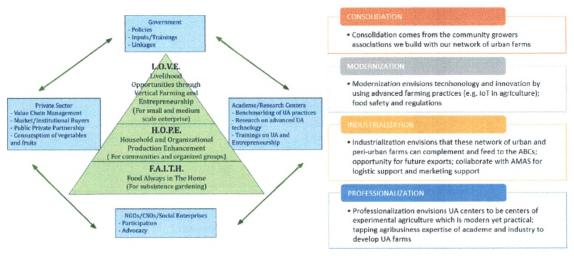
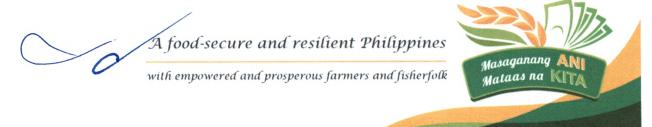


Fig. 1. DA NUPAP's "Communities of Support" (COS) strategy complementing the OneDA Reform Agenda





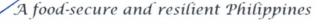
DA NUPAP focuses on the development and strategic growth of urban agriculture subprograms, namely: (1) Distribution of agricultural inputs to program beneficiaries; (2) Establishment of community urban farms (e.g. conventional, vertical, small livestock urban farms); (3) Start-up of corporate urban farms for commercial scale and (4) Establishment of NUPAP training and technology centers (Fig. 1).

This shall be based on the "Communities of Support Paradigm" which entails not only the support of the government but also NGO, academe, private sector and urban and periurban dwellers integrating their services. For the government, it will entail the usual support for inputs, technical assistance, financing and facilities. For the private sector, it can also come with the financing of value chain activities, linking them to farmer sectors, and encouraging public-private partnership. For the NGOs, it can come in entrepreneurship training, advocacy and mentoring while for academe, it comes with research and training. For institutional buyers, it can come from entrepreneurial training and partnerships. For individuals, it means supporting and buying locally-sourced produce. The urban and peri-urban dwellers shall also support and complement the activities of the program according to their capabilities and agreement. The integration of these actors shall cause the sustainability of the NUPAP.

The Communities of Support (COS) strategy is anchored on the principle of Collaborative Public Management (CPM) popularized by authors Arganoff and McGuire². It is a concept that describes the process of entering and engaging in multi-sectoral arrangements in order to solve issues that cannot be solved by single agencies. It is achieved through common objectives and spans across multi sectoral boundaries and relationships. It is based on the value of reciprocity and includes the participation of the public.

The DA NUPAP's COS strategy complements the OneDA Reform Agenda. Consolidation comes from the community growers' associations of DA NUPAP, together with the network of urban farms. The program also envisions the empowerment of partners in order to sustain the initiatives of the NUPAP on their own in the future. There would also be a diversification wherein NUPAP modules or technologies can be adapted to local conditions of the country, and food can be grown 24/7.

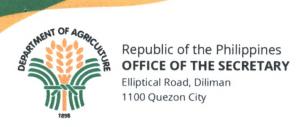
²Agranoff, R., McGuire, M. (2003). Collaborative public management: New strategies for local governments. Washington, DC: Georgetown University Press.



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For modernization, the program envisions technology and innovation by using advanced farming practices (e.g. IoT in agriculture). It also aims to be a climate resilient for a modern perspective of farming. The program would also tap the food safety and regulations as a primary concern in urban gardening.

For industrialization, the program also envisions that the network of urban and periurban farms can complement and provide supply to the Agro-Industrial Business Corridors (ABCs), which could also be an opportunity for future export. The DA NUPAP shall also collaborate with the Agribusiness and Marketing Assistance Services (DA-AMAS) to encourage consumption of "Local Food".

Lastly, for Professionalization, there would be UA Centers to be an avenue to experiential agriculture which is modern, yet practical. There would also be an agribusiness expertise of academe and industry which aims to develop UA farms. Youth and women engagement is also included wherein the program encourages young individuals to be involved in agriculture and to build a smart and modern agricultural set-up, and women by providing them with nutrition and livelihood opportunities (e.g. malunggay).

B. Legislative Support

The DA NUPAP shall support the passing of a national law on Urban and Peri-Urban Agriculture, in cooperation with the Office of the Undersecretary for Policy and Planning. There have been many bills that were crafted regarding Urban Agriculture which provide for the promotion of NUPAP to address food security and this is the most opportune time to push for its promulgation. Existing guidelines (DA Memorandum Circulars No. 8 and No. 13 and Administrative Order No. 28 on Urban Agriculture shall serve as the bases for the implementation of the program. (Annex A -List of House Bills relevant to Urban Agriculture)

SECTION V. PROGRAM COMPONENTS

The implementation of the NUPAP shall be done in collaboration with DA banner programs and agencies in coordination with NGAs, LGUs, private sector, NGOs and civil society, among others,

A. Distribution of Agricultural Inputs for Individuals/Households

The DA and its agencies shall continue to provide inputs and technical support especially for the benefit of the needy segments of the society, specifically the subsistence level urban farming. Subsistence level sectors are made up of the poor and marginalized, and victims of natural disasters. The identification of these beneficiaries may be done with the help of the Department of Social Welfare and Development (DSWD) and LGUs. A database of beneficiaries shall be in place in order to prevent repeating of beneficiaries and in order



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to determine the volume of inputs distributed. It should also serve as a monitoring tool for implementers. Results from this strategy can be achieved in the short term (less than 1 year) as this is already part of the existing programs of the DA and its agencies such as the distribution of seeds and planting materials from the BPI, small livestock from BAI, aquaculture inputs from BFAR and agricultural support through soil and water analyses from BSWM and agricultural engineering support from BAFE. The BPI alone has distributed an estimated total of 197,779 kilograms of seeds from March 2020 until September 14, 2021.

Implementers shall provide starter inputs such as seeds, seedlings, and other planting materials upon availability to requesting beneficiaries. Formal requests for inputs (e.g. seeds and/or planting materials) shall be done through letter or email addressed to the Director of the implementer. It shall include the name of the requesting party, contact details and the reason for the request. Provision of inputs shall follow existing guidelines of implementing DA agencies.

B. Community Farms

1. Establishment of community urban farms (e.g. conventional, vertical, small livestock urban farms for food security) –

Community urban farms are lands cultivated with fruits, vegetables, ornamental plants, small livestock like chickens, rabbits and quails, hydroponics, aquaponics, beekeeping and mushroom production on public or private spaces. This can be done in schools, parks, housing projects, places of worship, vacant lots and private properties within the city or town. Community urban farms are embedded in the locality and involve collaboration with DA, LGUs and private sector, among others.

Local governments complement this effort by passing local ordinances which incentivize the establishment of community gardens in vacant and unused lots. The produce, through conventional plot gardens, cooperative gardens, youth gardens, entrepreneurial market gardens (selling of produce) or therapeutic gardens, is consumed by the community, donated to charity or educational institutions. It can also be supplemented with raising of small livestock, hydroponics, aquaponics, beekeeping and mushroom production.

Aside from food production, community urban farms can serve as a networking site for people growing in the garden by sharing ideas, resources and experiences, thus, can be both empowering and therapeutic especially nowadays with the pandemic. This component shall also enhance the nutrition portion of the involved sectors through planting healthy plants such as malunggay. Moreover, the community farms are also encouraged not only for fruits and vegetables, but

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also ornamental plants and indigenous vegetables which are also in demand for exportation.

The DA has always pushed for the establishment of subsistence level to farmer cooperatives and associations (FCAs), as well as clustering of farms, as this can help in a more efficient management of agricultural activities. These can also be adapted to the national NUPAP through establishing and strengthening community-based urban garden groups. As of September 2021, there have been 2,589 community gardens established nationwide.

To step up, groups that will be dubbed as community farms shall be managed by trained individuals not only in agricultural production but also in entrepreneurship. As these groups undergo farmer entrepreneurship programs and gain experience, their produce shall be supplied to localities to aid in food security. When achieved in scale, it can cater to the demands of institutional buyers and partners through contracting. This can be achieved in collaboration with government services such as DA AMAS which can assist these groups with Kadiwa centers. The academe, such as the Department of Agribusiness Management and Entrepreneurship (DAME) at the University of the Philippines Los Baños (UPLB), can also contribute their expertise to establish business models for the benefit of these urban farming groups. This can be achieved in the short to medium term (1-3 years).

2. Startup of corporate urban farms for commercial scale

Corporate urban farms are areas where organized group entities are engaged in the business of farming/agriculture through setting up UA modules, such as nurseries and vertical farms, in order to provide the seedlings, augment tissue culture laboratories and complement indoor vertical farms to produce high-value crops that can be distributed to the localities. The establishment of community grower associations (CGA) shall be endeavored and these CGAs shall be composed of a cluster/community leader, production coordinator and marketing coordinator. This set-up shall prepare the Community Urban Farms to link to institutional buyers for possible commercial scale urban farming.

These shall be achieved, among others, through joint ventures, contract growing and other sustainable set-ups and can be achieved in the short to medium term (1-3 years). This also aims to create sustainable income for participants for them to be able to produce for the short (vegetables), medium (fruits) and long-term (plantation crops). These activities can also be assisted by the existing services of the DA such as loans and credit opportunities.



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DA NUPAP will link these with possible institutional buyers (e.g. Jollibee Foods Corporation) for the sourcing of their requirements after undergoing the necessary training such as farmer entrepreneurship programs. Collaboration with the Department of Trade and Industry (DTI) shall also be explored to identify developing markets especially in the Asian region and eventually, in the global scene. The DA NUPAP will also encourage food safety protocol standardization, through the help of RFOs, BPI and DA Legal for all linked farmers in order to serve a healthy and safe food in the table. In collaboration with UPLB- DAME, the marketing of the produce shall also be explored.

C. Establishment of NUPAP Training and Technology Centers

NUPAP technology centers shall be established to provide practical and hands-on training to growers from the aforementioned Urban Agriculture subprograms/strategies. It shall also serve as a site to conduct analytical agribusiness studies for urban agriculture enterprises in the Philippines, focusing on target markets both domestically and internationally for the planned systematic growth and expansion of the Philippine Urban Farming industry.

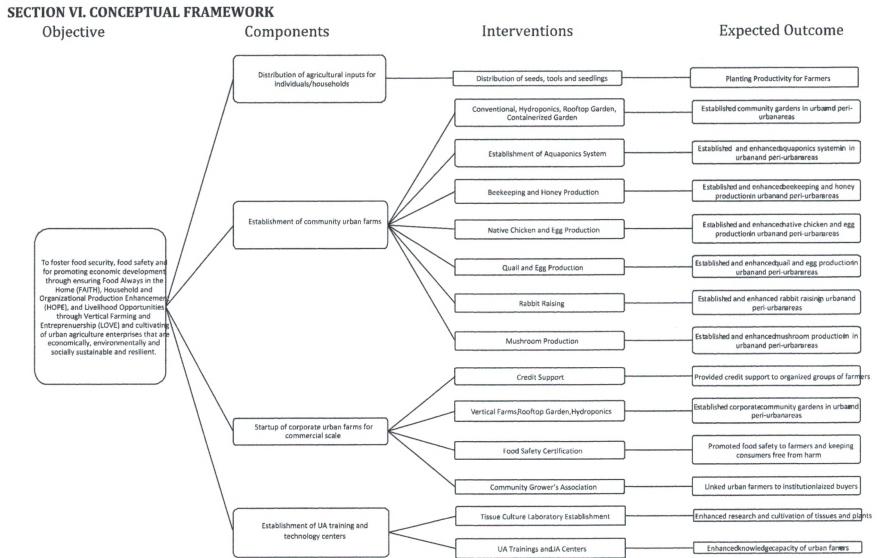
The Center must be in partnership among DA, UP, UPLB, CHED, TESDA and other Universities from Visayas and Mindanao, and commercial urban farming companies that can provide insights in markets based on their own experiences. Its main focus is on the design and demonstration of low-cost and tropics-adapted configurations and embodiments of urban farms appropriate for the Philippines' local climate and conditions. The DA and its agencies, through the ATI shall train NUPAP participants on appropriate agricultural technologies (e.g. BPI for plants, BAI for livestock, BFAR for fisheries, DA-AMAS and UPLB-DAME for agribusiness and entrepreneurship). DA may also tap support institutions and experts who may also train communities and groups in the agricultural market development strategies.



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SECTION VII. ORGANIZATIONAL STRUCTURE AND FUNCTIONS



The activities of the DA-NUPAP shall be in coordination with the National Banner Programs such as: High Value Crops Development Program (HVCDP), Fisheries Program, Organic Agriculture Program, Halal Program, Livestock Program, and DA attached bureaus and agencies. It shall operate under the auspices of the Office of the Secretary through the Undersecretary for Operations. The delineation of functions is as follows:

A. Undersecretary for Operations

Undersecretary for Operations, together with Undersecretaries for High Value Crops, Livestock, and Fisheries shall oversee the implementation of the DA NUPAP and shall see to it that these programs are given financial and logistics support annually.

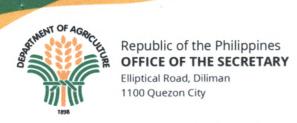
B. DA National Urban and Peri-Urban Agriculture Program Office

1. National Program Director

- a. Implement the activities of the NUPAP in collaboration with the National Banner Programs such as: HVCD Program, Fisheries Program, Organic Agriculture Program, Halal Program and Livestock Program;
- b. Prepare the work plan of the Program and monitor the implementation of the activities of the Program;
- c. Collaborate with private sector and LGUs in establishing demonstration of various urban agriculture schemes; Support private sector initiatives in scaling vertical farming for commercial food production;
- d. Coordinate the status of the Program with DA Regional Field Offices;

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- e. Prepare and submit physical and narrative report to the concerned DA Offices; and
- f. Perform other tasks as assigned by the Undersecretary for Operations and the Secretary.

2. NUPAP Secretariat

The Secretariat shall be composed of technical staff, administrative staff, monitoring staff, monitoring and evaluation staff, information staff, and transportation staff to support the National Program Director with the following duties:

- a. Function as overall support staff for the NUPAP;
- b. Facilitate coordination meetings with all the component agencies and institutions;
- c. Liaise with other banner programs, DA-Regional Field Offices (RFOs), Local Government Units (LGUs), private sector, Civil Society Organizations (CSOs), among others;
- d. Consolidate work plans and reports from Implementers and Support Agencies such as Budget Execution Documents (Financial Plan, Physical Plan, and Monthly Disbursement Plan, Project Procurement Management Plan);
- e. Prepare accomplishment reports regularly; and
- f. Perform other tasks as directed by the National Program Director.

C. Program Implementers

1. DA Offices and complementing functions

The following DA offices shall complement the urban agriculture program through support of their existing mandates.

- a. Agribusiness and Marketing Assistance Services (AMAS) for marketing support of urban farms' produce (e.g. KADIWA stores)
- b. Agricultural Training Institute (ATI) for agricultural training through online and face-to-face and accreditation for agri-tourism sites
- c. Bureau of Animal Industry (BAI) for poultry and rabbit raising, livestock, establishment and training
- d. Bureau of Agriculture and Fisheries Engineering (BAFE) for funding infrastructure and design support of nurseries and urban agricultural technologies
- e. Bureau of Fisheries and Aquatic Resources (BFAR) for fisheries and aquaponics
- f. Bureau of Plant Industry (BPI) for and food safety, community gardens and vertical farming training and establishment
- g. Bureau of Soils and Water Management (BSWM) for soil and irrigation support in the farm and garden establishment

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- h. High Value Crops Development Program (HVCDP) for funding, monitoring, evaluation and development of high value crops in urban and peri-urban areas
- i. Organic Agriculture Program (OAP) for organic agriculture training, and agricultural inputs support
- j. National Fisheries Program (NFP) for training, development and establishment of fisheries and aquaculture technologies
- k. National Livestock Program (NLP) for livestock training, development and production of approved inputs for urban and peri-urban setting
- l. Agricultural Credit Policy Council (ACPC) for credit support for small and medium enterprises engaged in urban and peri-urban agriculture
- m. Regional Field Offices (DA RFOs) to support the agricultural inputs of urban and peri-urban agriculture
- n. DA Strategic Communications Team to disseminate information and encourage programs for urban and per-urban agriculture
- o. Information and Communications Technology Service (ICTS) to provide site initiatives such as the establishment of online database for urban and peri-urban farms as well as implement existing technologies such as IoT which could support decision-making and marketing of produce from Urban and Peri-Urban Operations.
- p. Support Institutions (LGU's / City Agriculture Offices, Private Sector, Non-Government Organizations, Civil Society Organizations, etc.) to support the NUPAP by actively participating and exploring areas of collaboration as well as being the consumer of locally-produced commodities.

2. Responsibilities

- a. Conduct site assessment and submit site assessment reports;
- b. Forge partnership with the identified beneficiaries and support linkages and forward a copy of the MOA to the office of the Program Director of UA;
- c. Establish the preferred urban agriculture scheme with the beneficiaries;
- d. Provide initial agricultural inputs such as seeds, seedlings, and garden tools, mushroom starter kits, aquaponics set-up, garden soil, fertilizers, small agricultural tools and design of small structure;
- e. Integrate malunggay planting for additional source of nutrition and for livelihood opportunities;
- f. Conduct trainings and provide technical assistance and IEC materials related to urban agriculture (e.g. crop production and management, small agribusiness management);
- g. Coordinate with other agencies for support if the needs of the beneficiaries are specialized;
- h. Promote urban agriculture in their platforms such as the official website, official Facebook page or other media and paraphernalia;
- i. Monitor the implementation of the project;

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- j. Document and disseminate all UA-related activities through multimedia channels; and
- k. Submit monthly accomplishment and monitoring reports to DA NUPAP.

SECTION VIII. LIST OF NUPAP ACTIVITIES, RESPONSIBLE AGENCIES AND EXPECTED OUTPUTS (Refer to Annex B for the modules of each activity):

Urban Agriculture	Responsible	Expected Outputs	Target Beneficiaries
Activities	Agency		
Seeds and Seedlings	DA-BPI, DA-	Distributed Seeds and	All sectors,
Distribution	RFOs, ATI, UPLB,	Seedlings, Number of	specifically the
	ATI	Beneficiaries	subsistence level
		(Individuals and	urban farming
		Groups), Certification of	
		good quality seeds and	
		planting materials.	
Training and	DA-ATI, BAFE,	UA training modules	All sectors
Development, UA Centers	BAR, CHED,	produced, trained	
Trainings	TESDA	Beneficiaries	
Community Garden/Farms	DA-BPI, DA-	Beneficiaries with	Subsistence level to
Establishment	BFAR, DA-BAI,	Established Farms,	organized groups;
(Conventional, Vertical	DA-BAFE, DA-	urban farm production	
Farms, Hydroponics,	BSWM, NLP, NFP		For corporate farming
Rooftop Garden,			(vertical farms,
Containerized Garden)			hydroponics and
			rooftop gardens) -
			Community Growers'
			Association
Aquaponics System	DA-BFAR, DA-	Beneficiaries with	Subsistence level to
Establishment	RFOs, NFP	Established Aquaponics	organized groups
		System, aquaculture	
		production	

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Beekeeping and Honey	DA-BAI, DA-	Beneficiaries with	Subsistence level to
Production	RFOs	Beekeeping and Honey	organized groups
		Production set-up,	
		apiculture production	
Native Chicken and Egg	DA-BAI, DA-	Native Chicken and Egg	Subsistence level to
Production	RFOs, NLP	Production	organized groups
		Beneficiaries, chicken	
		meat and egg	
		production	
Quail and Egg Production	DA-BAI, DA-	Quail and Egg	Subsistence level to
	RFOs, NLP	Production	organized groups
		Beneficiaries, quail	
		meat and egg	
		production	
Rabbit Raising	DA-BAI, DA-	List of Rabbit Raising	Subsistence level to
	RFOs	Beneficiaries	organized groups
Tissue Culture Laboratory	DA-RFOs, BPI	Tissue Culture	DA Regional Field
Establishment	Centers	Laboratory Plan and	Offices
		Design	
Mushroom Production	DA-BPI, BPI	List of Mushroom	Subsistence level to
	Centers, DA-	Production	organized group
	RFOs	Beneficiaries	
Monitoring and Evaluation	NUPAP	Monitoring Reports,	All sectors with
	Secretariat,	Accomplishment	established farms
	NUPAP Council	Reports	
Credit Support	ACPC	List of Credits Extended	Subsistence level to
		to Urban and Peri-	organized group
		Urban Farmers	
PhilGAP Certification and	NUPAP, BPI, DA-	List of Farmers	All sectors with
Food Safety	RFOs	Approved for Food	established gardens
		Safety	
Ornamental Plants	NUPAP, BPI, DA-	List of Ornamental	All sectors
Production	RFOs,	Plants Growing and its	
		Training	



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D. Program Council

Program Council shall be constituted to serve as advisory committee to assist the Program Director to steer the Program.

The Chairman of the Council shall be the Secretary of Agriculture and the Undersecretary for Operations as his representative. The members of the Council are composed of representative from BPI, BAI, BFAR, BAR, ATI, HVCDP, Field Operations Service, Organic Agriculture, Local Government Unit, Agribusiness Sector, DTI, TESDA, DepEd and PAA and must at least a Division Chief or higher.

Advisors from the academe and science and technology associations shall provide advices to the Program.

SECTION IX. MONITORING AND EVALUATION

Monthly, quarterly and semestral evaluations shall be conducted in order for the program to constantly. A monitoring tool created by the NUPAP's steering committee shall be given to the beneficiaries and partners. A training shall be conducted to teach the partners on how to properly maintain records from the data of inputs given until the production and harvest data. The partners shall then likewise be expected to submit their accomplished forms monthly to the implementers assigned to them (e.g. DA-RFOs, BPI, etc.). The implementers shall then send the consolidated data to the NUPAP Secretariat every third week of the month for the drafting of the monthly accomplishment report

On-site monitoring shall also be regularly conducted by the implementers where they shall assess the physical status of the sites established. The completion of the on-site monitoring shall be done at least quarterly. Assessors shall record the challenges and the interventions to be done in response to the problems encountered. These shall then be consolidated by the implementers to be submitted to the NUPAP Secretariat for the drafting of accomplishment report and endorsement to the NUPAP Director. The DA ICTS shall also assist in the information and evaluation of NUPAP established sites through an online database or dashboard.

SECTION X. INFORMATION DISSEMINATION

All activities of the DA NUPAP shall be documented and submitted to the Office of the Assistant Secretary for Communications and shall be endeavored to be widely disseminated. Collaboration with media outlets shall be explored in order to further promote the UA initiative. This will be also in coordination to the DA Information and Communications Technology Service (ICTS) in order to provide the program the over-all orchestration and guidance on Information and Communications Technology (ICTS).

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SECTION XI. INCENTIVES

At the end of every calendar year, the NUPAP Summit shall be held in order to recognize the communities or partners with exemplary gardens/farms. Awards shall be given to projects that are collaborations between any of the support institutions including nonprofit organizations, local government entities (e.g., parks and recreation departments, housing authorities), small businesses, other public gardens, educational institutions, or similarly qualified organizations. New or existing programs/projects/partnerships may apply which have food growing and education, and must also serve audiences experiencing food insecurity in urban or metropolitan areas. Applications must be submitted by only one organization who signed MOA on behalf of the partnership/project. Awardees shall publicly share results and lessons learned from their Urban Agriculture experience.

SECTION XII. BUDGETARY REQUIREMENTS

An initial budget of Five Hundred Million Pesos (Php 500,000,000) shall be earmarked for the initial year of implementation of the NUPAP sourced from the GAA, Bayanihan 3 or any available fund sources of the DA.

SECTION XIII. EFFECTIVITY CLAUSE

This Order shall take effect immediately.

Done this 3rd day of February 2022.

WILLIAM D. DAR, Ph.D.

Secretary

DEPARTMENT OF AGRICULTURE

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ANNEX A Legislations related to NUPAP

During the 17th Congress, the following house bills relevant to Urban Agriculture were crafted:

House Bill No. 4337 An Act Promoting the Use of Urban Agriculture in All Urban Areas in the Philippines, Establishing for the Purpose the Urban Agriculture Program and Appropriating Funds Therefor

House Bill No. 4805 An Act Mandating the Department of Agriculture to promote Urban Agricultural Development in the Country's Metropolitan Areas, to Address Food Security, and Providing Funds Therefor

House Bill No. 7526 An Act Promoting Integrated Urban Agriculture and Vertical Farming in the Country, Appropriating Funds Therefor

House Bill No. 9105 An Act Promoting Integrated Urban Agricultural Development in All Metropolitan Areas nationwide to Address Food Security Concerns and Appropriating Funds Therefor

House Bill No. 4337 and 4805 were substituted by House Bill No. 9105 and was approved by the House on May 27, 2019. It was transmitted to the Senate on May 28, 2019 and received by the Senate on the same day. House Bill No. 7526 is still pending with the Committee on Food Security since May 16, 2019.

Meanwhile the following house bills and senate bills were introduced during the 18th Congress:

House Bill No. 284 An Act Promoting Integrated Urban Agricultural Development in All Metropolitan Areas Nationwide to Address Food Security Concerns and Appropriating Funds Therefor

House Bill No. 2119 An Act Promoting the Use of Urban Farming in the Metropolitan Regions to Address Food Security Concerns, Establishing Ecological Community Functions, and For Other Purposes

House Bill No. 3412 An Act Integrated Urban Agriculture in Urban Areas Nationwide to Address Food Security and Appropriating Funds Therefor

House Bill No. 4081 An Act Promoting Integrated Urban Agricultural Development in All Cities and Metropolitan Areas Nationwide to Address Food Security Concerns and Appropriating Funds Therefor

House Bill No. 5640 An Act Promoting the Use of Urban Agriculture in All Urban Areas in the Philippines, Establishing for the Purpose the Urban Agriculture Program and Appropriating Funds Therefor

House Bill No. 5923 An Act Promoting the Use of Urban farming in the Country's Metropolitan Areas to Address Food Security Concerns and Regenerate Ecosystem Functions, Appropriating Funds Therefor, and for any Other Purpose

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House Bill No. 637 An Act Promoting Food Forest gardening, Providing Funds Therefor, and for Other Purposes

House Bill No. 6471 An Act Addressing Food Security Concerns through Integrating Instructional Gardens in Primary and Secondary School Curricula and Promoting the Use of Urban Agriculture, and for Other Purposes

House Bill No. 7614 An Act Institutionalizing the Gulayan sa Bakuran Program of the Iglesia ni Cristo with the End in View of Helping Alleviate Food Shortage in the Land

House Bill No. 7768 An Act Promoting Integrated Urban Agricultural Development in All Metropolitan Areas Nationwide to Address Food Security Concerns and Appropriating Funds Therefor

House Bill No. 7768 have been considered the same and recommend that House Bill No. 8385 be approved in substitution of House Bills Numbered 284, 637, 855, 2119, 3412, 4081, 5640, 5923, 6472, 7614 and 7768 in the Second Regular Session of Eighteenth Congress

House Bill No. 855 An Act Mandating the Department of Agriculture to Promote Urban Agricultural Development in the Country's Metropolitan Areas, to Address Food Security, and Providing Funds Therefor

Senate Bill No. 147 An Act Mandating the Establishment of Instructional Gardens in all Elementary and Secondary Schools, Public or Private, Making it a Requirement for the Creations and Issuance if Permits for Schools and for Other Purposes

Senate Bill No. 257 An Act Promoting the Use of Urban Agriculture and Vertical Farming in the Country's Metropolitan Areas to Address Food Security Concerns and Regenerate Ecosystem Functions, Appropriating Funds Therefor, and for Other Purposes

Senate Bill No. 280 An Act to Promote Urban Agriculture and Vertical Farming in the Country's Metropolitan Areas to Address Food Security Concerns and Regenerate Ecosystem Functions and Appropriating Funds Therefor

Senate Bill No. 587 An Act Promoting Integrated Urban Farming to Address Food Security Concerns and Livelihood Opportunities and Appropriating Funds for the Purpose

Senate Bill No. 1264 An Act Promoting Integrated Urban Agricultural Development in All Metropolitan Areas Nationwide to Address Food Security Concerns and Appropriating Funds Therefor

Senate Bill No. 1342 An Act Addressing Food Security Concerns Through Integrating Instructional Gardens in Primary and Secondary School Curricula and Promoting the Use of Urban Agriculture, and for Other Purposes

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Senate Bill No. 1342 substitutes Senate Bill Nos. 147, 257, 280, 587, and 1264. Its current status is pending for second reading with the Committee on Agriculture, Food, and Agrarian Reform since February 17, 2020.

Ordinance No. 794, S-2020 An Ordinance Institutionalizing Urban Agriculture in the City of Mandaluyong

Executive Order No. 32 Series of 2020 Creating a Task Force on Food Security to Promote Urban Agriculture and Develop Agriculture Zones and Food Zones

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ANNEX B Urban Agriculture Modules



Source: Uratex Philippines, Cabuyao, Laguna

1. Conventional Community Gardens - an area where individuals, families or groups grow their own flowers, vegetables, fruits or ornamental plants in a traditional way which is planting in the plots of land for various purposes and benefits.



Source: Technical Institute Muntinlupa

2. Container Gardening - this is growing of plants in a container such as pots, recycled materials, or other receptacles that is good to be grown in balcony, patio, courtyard, indoors, or rooms with adequate light.

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Source: Dole Asia Company Ltd. in Makati City

Rooftop gardens - rooftop gardening provides an alternative source of fresh vegetables
which can be more accessible to urban people. It can also reduce heat and electricity
costs and protect buildings from wind elements.



4. Hydroponics - This is a form of gardening which uses mineral solutions in an aqueous solvent, instead of soil, to produce plants and vegetables in a shorter span of growing plants outdoors.

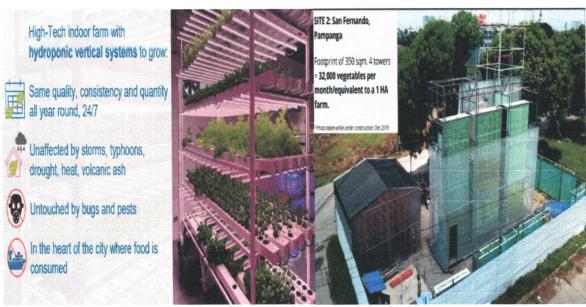
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- Identification of participants shall be done through DA-RFOs, BPI and partner institutions for the identification of beneficiaries, a predetermined number of hydroponics set-up will be given to each region by the UA Program.
- A Memorandum of Agreement (MOA) shall serve as the institutional arrangement with the identified recipients of hydroponics
- Training will be conducted by the partner institutions for each RFOs, as these DA-RFOS are expected to train the determined beneficiaries of hydroponics. Technical training and establishment assistance will also be given by the BPI and other partner institutions.
- DA NUPAP and partner institutions will monitor regularly the hydroponics program and will provide recommendations for improvement until the beneficiaries could harvest and process the products and by-products.
- Beneficiaries shall market their produce in order to sustain the operations



Source: Urban Greens and Good Greens

- 5. Vertical Farms Vertical Farming is an advanced level of agricultural technology which takes into consideration the limited space in the cities where crops can be grown either stacked in layers, shelves, or modified pallets against the walls. It is usually integrated with hydroponics or aeroponics technology wherein the growing environment for the crops is controlled.
- Vertical Farms will be given to chosen beneficiaries through DA-RFOs, BPI and partner institutions
- A Memorandum of Agreement (MOA) shall serve as the institutional arrangement with the identified recipients of vertical farms
- Training will be conducted by the partner institutions for the chosen beneficiaries.
 Technical training and establishment assistance will also be given by the BPI and other partner institutions.
- DA NUPAP and partner institutions will monitor the vertical farms and will provide recommendations for improvement of the farms
- Beneficiaries shall market their produce in order to sustain the operations

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DA RFO II's Mushroom house and Fruiting bags for mushroom production

DA RFO – CAR Operational Urban mushroom facility with cemented flooring and fruiting bags hanged.



6. Mushroom Production

This involves production of bedding-compost containing nutrients for mushrooms to grow and this could be a great source of livelihood. The mushroom production involves steps such as composting, spawning, casing, pinning and cropping.

- Through the help of Bureau of Plant Industry, the training for mushroom production would be done in two-days which would include the overview of mushroom production and hands-on exercises of processes of mushroom production
- Mushroom bags would be given to the beneficiaries; and the growing house could be modified by the inspector
- Growing house that is located in humid area should have conditions of high humidity and coldness that could be made of coco lumber, nipa and sawali while for the roofing would be concreate wall with galvanized roof
- Size of growing house would depend on desired capacity, however, the rule of thumb is 1, 350 bags in 3.5 m x 3.5 m house

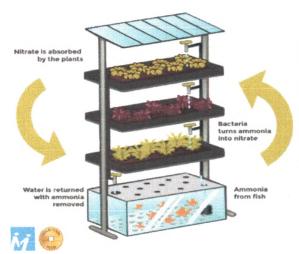
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AQUAPONIC SYSTEM





Source: Pilmico and BPI AD Office

- 7. Aquaponics This is an integrated system of aquaculture and hydroponics which utilizes the synergy of the two systems. In order to aid the shift to sustainable consumption patterns and with the increasing prices of protein sources (such as pork, beef, etc), culturing fish in urban areas shall be a priority. Different models of aquaponics can be tailored to fit one's needs and available resources.
- This component shall be in collaboration with BFAR wherein the project shall distribute start-up inputs for culture of fish and vegetables that varies in structures and sizes for urban and peri-urban areas.
- This would also include a training component for an efficient transfer of technology for all the recipients of the aquaponics system.
- A Memorandum of Agreement (MOA) shall serve as the institutional arrangement with the identified recipients of the project
- 8. Native Chicken and Egg Production (*Manukan sa Bakuran*)
 Native chickens are raised in a backyard setting of the household, in which small numbers of hens and quails are produced and egg collections are being done on a daily basis.
- This project entails to give the beneficiaries the knowledge on how to raised native chickens
- Twenty-five (25) native chickens that are 2 months-old will be given to the beneficiaries for the production of eggs and meat
- This also includes the distribution of chicken coops that is made of steel made by BAI
- This would also include the continuous training and technical consultations for the beneficiaries
- The certificate of ownership shall also be given to the beneficiaries who are already paid for the project.

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9. Quail and Egg Production

Most quails are raised in the backyard and are laying in as little as six to eight weeks. Their eggs have many benefits which include improvement in vision, energy increase, metabolism booster and growth and repair stimulation.

- Through the BAI, quail starter set-up will be given to each region through DA-RFOs as a start-up of the quail and egg production which includes the quails, egg incubator, cages and feeds. DA-RFOs will be the one to determine the beneficiary of the set-ups.
- Technical trainings and assistance will also be given by the BAI to the DA-RFOs for the quality production of chickens.
- The DA will provide funds for the chosen beneficiaries to start their quail and egg production livelihood.
- Partner institutions will monitor the production of quail and egg, will provide recommendations for improvement until the beneficiaries could harvest and process the products and by-products.
- Beneficiaries shall market their produce in order to sustain the operations



Source: Countryside Network

10. Rabbit Raising

Rabbit raising is a form of breeding and growing a few rabbits in the backyard as a potential replacement for meat, a good source of protein and a lucrative livelihood for every family.

- This initiative is a project wherein a pre-determined number of rabbit raising start-up kits (including the rabbits, cages, feeders and feeds) will be given for the DA-RFOs in which they will determine the beneficiary.
- The NLP will handle the technical training and assistance for the DA-RFOs.
- The DA will provide funds for the chosen beneficiaries to start their rabbit raising livelihood.
- Partner institutions will monitor the rabbit raising program and will provide recommendations for improvement until the beneficiaries could harvest and process the products and by-products.
- Beneficiaries shall market their produce in order to sustain the operations.

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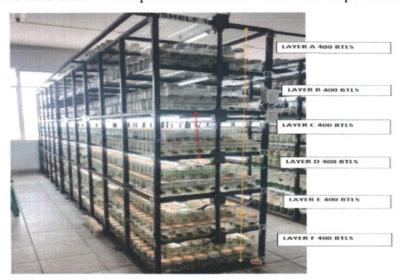


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11. Beekeeping and Honey Production/Apiculture

Beekeeping and honey production aims to provide an alternative source of income for local communities especially to the partner-beneficiaries with thriving gardens.

- The implementers shall include in their site assessment report if the area is amenable for beekeeping and if the partners have resources for a start-up business
- The implementers shall partner with institutions with beekeeping programs (such as the UPLB and CVSU)
- Training on beekeeping and further site assessment will be conducted by these partner institutions
- The DA will provide funds for the chosen beneficiaries to start their beekeeping livelihood
- Partner institutions to monitor the beekeeping endeavor and provide recommendations for improvement until the beneficiaries could harvest and process the products and byproducts
- Beneficiaries shall market their produce in order to sustain the operations



Source: Harbest Agribusiness Corporation

12. Tissue Culture Facility

Tissue culture facility is a laboratory where tissues and organs of plants are grown in vitro on artificial media under an aseptic and controlled environment for beneficial purposes such as research, breeding and multiplication of plants. This laboratory generally comprises different rooms and areas such as: general washing and media preparation, sterilization, storage, aseptic transfer, data collection and culture rooms.

- Low-cost and limited number of tissue culture facilities will be built in the regions based on the proposed budget of the UA Program. The UA Program will assist each region in planning, building and accrediting the tissue culture laboratory.
- Supplies and equipment that will be bought for the laboratory shall be charged from the UA Program budget.
- Personnel that will work in the tissue culture laboratory will be charged from the fund sources of each region.
- Technical training and assistance shall also be given by the DA and partner institutions for the improvement of the laboratory and personnel.
- The DA-RFOs shall monitor the tissue culture laboratory with regards to its laboratory improvement and tissue culture production.

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13. Ornamental Plants Production

Ornamental Plants are grown in gardens and landscape designs and are used for decorative and display purposes. It has been increasingly in demand due to its specialization and commercialization.

- The implementers shall include in their site assessment report if the area is amenable for ornamental plants growing and if the partners have resources for a start-up business
- The implementers shall partner with institutions with ornamental programs (such as UPLB)
- Training on ornamental plants will be also conducted by these partner institutions
- The DA will provide funds and trainings for the chosen beneficiaries to start their ornamental plants livelihood
- DA NUPAP and partner institutions shall monitor the ornamental plants production and provide recommendations for improvement until the beneficiaries could harvest and process the products and by-products
- Beneficiaries shall market their produce in order to sustain the operations

14. PhilGAP Certification and Food Safety

- Food safety has been a primary concern of all the individuals in order for them to ensure that plant products harvested are quality food, fit for consumption and within the safe limits from microbiological and chemical risks.
- The DA NUPAP shall encourage the urban farmers and partners to apply for PhilGAP certification implemented by Bureau of Plant Industry (BPI). BPI through Plant Product Safety Services Division (PPSSD) shall inspect site and undertake responsibilities relevant to food safety of fresh plant foods from primary production to post harvest stages of the supply chain through effective food safety control system and laboratory service (microbiological analysis, pesticide residue analysis, aflatoxin and heavy metals analysis)
- 15. Metropolitan food clusters an innovative network of food producers, processors or service providers aimed at optimizing resource use and market connectivity in a wider social, spatial and institutional framework. It addresses food security issues by transforming rural landscapes near urban areas into sustainable food production areas through application of high level of knowledge and technology with efficient logistics and direct linkage with internal and external markets thereby producing positive effects on socio-economic development. It also applies technologies to reduce costs and environmental emissions.

16. Credit Support

Credit Support is given to urban farmers in order for them to start community gardens or farms as a source of their livelihood.

- The DA NUPAP shall evaluate if the beneficiaries are amenable for support and endorsement to crediting partner agencies
- The DA NUPAP shall endorse the beneficiary to the partner institution such as ACPC.
- The crediting partner agency shall evaluate the documents submitted to their office if they
 could be granted credit. The amount that shall be given will be based on the ACPC
 approval.
- The crediting partner agency shall inform the DA NUPAP about the approval status of the beneficiary.
- The DA NUPAP shall monitor the progress of the garden after the credit has been granted
- The beneficiary needs to regularly update DA NUPAP about the gardens' progress

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