

Republic of the Philippines

Department of Agriculture

OFFICE OF THE SECRETARY

Elliptical Road, Diliman,

Quezon City, 1100 Philippines

ADMINISTRATIVE ORDER

SUBJECT

REVISED GENERAL GUIDELINES ON THE IMPLEMENTATION OF THE DEPARTMENT OF AGRICULTURE FARM-TO-MARKET ROADS DEVELOPMENT PROGRAM (DA-FMRDP)

BACKGROUND:

The Department of Agriculture (DA) is mandated to undertake various agri-fisheries infrastructure projects such as, but not limited to the construction, restoration, and rehabilitation of irrigation systems, post-harvest facilities and farm-to-market roads (FMRs) in order to provide better opportunities to farmers and fisherfolk by increasing farm production at lower cost and thereby increasing their incomes and making food more affordable to the general public.

FMR is a vital intervention that will improve the links between the production areas and markets, and enhance the efficiency of transporting agricultural products. Therefore, well planned and implemented FMR directly supports the realization of the DA Policy Framework for inclusive Agri-industrialization and New Thinking for Agriculture.

LEGAL BASIS:

Section 52 of RA No. 8435 (Agriculture and Fisheries Modernization Act) mandates the Department of Agriculture (DA) to coordinate with the Local Government Units (LGUs) and the resident-farmers and fisher folk to identify priority locations of FMRs taking into account the number of farmers and fisher folk and their families who shall benefit therefrom and the amount, kind and importance of agricultural and fisheries products produced in the area. Likewise, Section 24 of RA No. 10601 (Agricultural and Fisheries Mechanization Law) mandates the Bureau of Agricultural and Fisheries Engineering (BAFE), a new bureau of DA, to coordinate, oversee and monitor the national planning, implementation and regulations of FMRs.

In view of this mandate of DA, the General Appropriations Act (GAA) provides annual appropriations for FMR under the DA budget. The allocated budget will be used for the construction, repair, rehabilitation, and road openings of FMR in designated key production areas which will be directly released to the Department of Public Works and Highways (DPWH), and part of the allocation is for the FMR network planning and monitoring services to be undertaken by DA.

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As such, a revised guidelines on the implementation of DA Farm-to-Market Road Development Program is hereby issued with the following provisions:

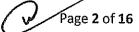
SECTION I. Scope- This guidelines covers the procedures in the identification, validation, selection and prioritization, design, approval, and coordination arrangements with DPWH on the construction or rehabilitation and monitoring of FMRs to be implemented under Farm-to-Market Road Development Program (FMRDP). It also includes the roles and responsibilities of various operating units of DA.

The FMRDP shall give priority to the concreting of existing unpaved FMRs as well as new road openings that links production areas to markets. Access roads classified as national, provincial, city or municipal roads, or identified as industrial roads or farm-to-mill roads are not eligible for funding under FMRDP.

SECTION 2. *Definition of Terms*- For the purpose of this Administrative Order, the following terms shall be used:

- a) Augmentation refers to the act of the constitutional officers authorized to use savings in their respective appropriations to cover a deficiency in any existing item of appropriation within their respective offices¹;
- b) Barangay Roads refers to rural roads located either outside the urban area of city or outside industrial, commercial or residential subdivisions which act as feeder to farm-to-market roads, and which are not otherwise classified as national, provincial, city or municipal roads. Roads located outside the Poblacion area of municipality and urban area of a city to be designated as such by the Barangay Council concerned²;
- c) City Roads refer to roads/streets within the urban area of the city to be designated as such by the Sangguniang Panglungsod²;
- d) FMR Concreting refers to the process of building of road following engineering plans, designs and specifications and approved existing engineering methodology that involves but not limited to culvert construction, slope protection and Portland Concrete Cement Pavement (PCCP) construction utilizing manpower and equipment resources;
- e) Farm-to-Market Road refers to road within the agriculture and fisheries production areas, coastal landing points, post-harvest or processing facilities that links to local roads, national highways and market³;
- f) FMR Network Plan refers to a systematic list of proposals detailing the integrated connectivity of FMR that links identified agri-fisheries production areas, processing and other agriculture-related infrastructures, trading posts, local markets and agritourism sites with the local core road network and national highways. The FMR Network Plan is supplementary to the Local Roads Network

³ Harmonized Definition based on Section 4 of RA No. 8435, PD No. 701 and PCAF FMR Policy Study, 2018



¹DBM National Budget Circular 577

² DPWH Road Safety Manual Vol. 1, p. 11-13

Development Plan (LRNDP) of respective LGUs mapping the development of identified and prioritized road links for rehabilitation, improvement or new construction/opening primarily serving the local agriculture sector into all-weather accessibility;

- g) Farm-to-Mill Road refers to roads connecting the sugarcane farms to any sugarcane processing facilities such as sugar mills, ethanol distilleries, biomass powerplants and other production facilities using sugarcane as raw material with specifications that can handle truckloads of sugarcane⁴;
- h) Local Roads refers to roads that are either barangay, municipal, city or provincial roads;
- i) Local Road Network Development Plan (LRNDP) refers to an integrated 5-year development plan for the sustainable development and maintenance of local road networks. The LRNDP supports efforts of provincial governments to improve local competitiveness through adequate and well-maintained roads infrastructure and better roads connectivity to ease movement of people and goods, and spur local economic development⁵;
- j) Local Road Network Map refers to a map for local road networks which is included in the Local Road Network Development Plan (LRNDP) of the Local Government Units (LGUs);
- k) *Modification* refers to any change in the FMR project title such as but not limited to typographical errors and change of location within the congressional district;
- Municipal Roads refer to roads/streets within the poblacion area of a municipality to be designated as such by the Sangguniang Bayan⁶;
- m) National roads refer to roads that are continuous in extent that form part of the main trunk line system; all roads leading to national ports, national seaports, parks or coast-to-coast roads. National arterial roads are classified into three groups from the viewpoint of function, i.e. North-south backbone, East-West Laterals and Other Strategic Roads³;
- Portland Cement Concrete Pavement (PCCP) refers to type of concrete road which consist of a Portland Concrete Cement slab that is usually supported by a granular or stabilized base, and a subbase. (check DGCS definition by DPWH);
- o) Provincial Roads refer to roads connecting one municipality with another; all roads extending from a municipality or from a provincial or national roads to a public wharf or railway station; and any other road to be designated as such by the Sangguniang Panlalawigan³;

⁶ DPWH Road Safety Manual Vol. 1, p. 11-13

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⁴ Implementing Rules and Regulations, Sugar Industry Development Act of 2015

⁵ Guidelines on the Development of the Local Roads Network Development Plan (LRNDP) p. 1

- p) Rehabilitation or Restoration refer to a grouping of types of work which restore structural capacity and performance, and/or enhance safety. These types of work are applicable to infrastructure in poor or bad condition. In the case of pavement, this shall not extend into the subgrade. In the case of flood control, this includes dredging;
- q) Right of Way (ROW) refers to a part of the entirety of a property, site or location, with defined physical boundaries, used or required by a national government projects⁷;
- r) Road Influence Area (RIA) refers to the area that an FMR is expected to effectively service to ensure that the value of investments in an FMR will be much more beneficial than costly. RIA captures an indicative area, including both agricultural and built-up areas, that will directly utilize the road with the goal of supporting and augmenting agricultural activities in the area; and
- s) Strategic Agriculture and Fisheries Development Zones (SAFDZ) refers to the areas within the Network of Protected Areas for Agricultural and Agro-Industrial Development (NPAAAD) identified for production, agro-processing and marketing activities to help develop and modernize, with the support of government, the agriculture and fisheries sectors in an environmentally and socio-culturally sound manner.⁸

SECTION 3. Coverage- The Guidelines shall cover rural roads infrastructure that act or function as access roads to production areas and are not otherwise classified as national, provincial, city or municipal roads. It includes the construction of new barangay roads/road openings and upgrading/improvement of existing FMRs, and other farm access roads. However, it shall give priority to the concreting of existing unpaved FMRs that links production areas to markets.

Depending on the location, the construction of FMR shall be:

Road Lane	ADT	Minimum pavement width (m)	Minimum road shoulder width (m)
One lane	Less than 50	2.5	0.75
Two Lane	50 to 200	5	1.5
Two Lane	200 and above	6.1	1.5

One-lane roadway:

a) There shall be provisions of turnout in strategic locations for maneuver of two vehicles traveling in opposite directions and in critical sections especially on steep grades along mountainous areas. Turnout shall be about 1 m wide and 60 m long. The minimum distance of consecutive turnouts shall be 1000m.9

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⁷ PNS/BAFS PABES 289:2019

⁸ RA No. 8435

⁹ PNS/BAFS PABES 289:2019

- b) The road shall be constructed either left or right from the center of the existing ROW in order to accommodate expansion in the future¹⁰.
- c) The design of the roadside ditch within the ROW should be earth ditch, since it will be damaged during expansion. However, steep slope ditch should be constructed of other materials to prevent erosion.¹¹

The appropriate road lane shall be determined during the validation process

SECTION 4. *Identification and Social Preparations*-All FMR requests either for concreting, road openings, rehabilitation and improvement emanating from local government units (LGUs), agricultural and fisheries councils (AFCs), farmers and fisherfolk associations or other proponents shall be submitted or forwarded to the concerned DA Regional Field Office through the Regional Agricultural Engineering Division (RAED). Prior to the validation of FMR proposals, the RAED shall ensure that the following supporting documents are submitted or complied by the proponent/s:

- a) Letter of intent or resolution stating the need for connecting the production area to the market through the construction of FMR and endorsed by the LGUs;
- b) Local Road Network Map showing the accessibility and connectivity of the proposed road to equal or higher road classification and to market or trading center/agricultural infrastructure facility;
- c) Prioritization profile accomplished by the LGU/proponent (Annex B, downloadable in BAFE Website).
- d) Certification from Municipal/City or Provincial Planning Development Office that the proposed FMR project is included in the Local Development Investment Plan (LDIP) or Local Agriculture and Fisheries Modernization Plan (AFMP) or Provincial Commodity Investment Plan (PCIP).
- e) Endorsement from the Regional Development Council that the project is part of the Regional Development Plan (RDP). The concerned DA RFO shall coordinate, secure and validate this with their respective NEDA Regional Office.

Please see Annex A (RAED Checklist)

The RAED shall be responsible for its encoding to ABEMIS, validation, geo-tagging and initial screening of the proposed FMR projects.

SECTION 5. *Validation of Proposed FMR Projects-* 1) Following the submission of complete supporting documents by the FMR proponent, the RAED shall conduct validation and ensure that the following criteria are satisfactorily complied:

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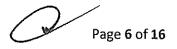
¹⁰ PNS/BAFS PABES 289:2019

¹¹ PNS/BAFS PABES 289:2019

- a. The FMR serves a road influence area (RIA) that has significant agricultural potential (i.e. FMR as road within the agriculture and fisheries production areas, coastal landing points, post-harvest or processing facilities that links to local roads, national highways and market);
- b. It is part of a connected road network system that provides vital access to and from the existing or potential key production areas and the nearest market centers (e.g., trading post, public market, port or administrative center, postharvest processing facility), or agri-tourism areas;
- c. It is linked to an all-weather road of equal or higher quality;
- d. It must have a minimum length of 1.00 kilometer for both flat and rolling terrain and inclined steep areas (special areas) to enhance impact and for cost efficiency;
- e. The proposed road section shall be one continuous road;
- f. The FMR has a minimum perpendicular distance of one (1) kilometer to another concreted road or road scheduled for construction. Exemption shall apply for those projects that are: 1) located in the area with natural barriers, 2) provide direct access to post harvest facilities, small scale irrigations projects, costal landing points, agri-tourism sites and other agri-infra projects;
- g. It is within the Strategic Agriculture and Fisheries Development Zones (SAFDZ);
- h. It shall benefit the farmers, fisherfolk, and agrarian reform community within the barangay or cluster of barangays;
- i. It has no adverse environmental impact within the RIA; and
- j. The proposed FMR projects should be included in the FMR network plan/Regional Development Plan (RDP) submitted by the LGU through DA-RFO to avoid duplication or overlapping of projects.

Please see Annex C (RAED Checklist)

- 2) When the FMRs are found feasible after the RAED validation, these shall be included or updated in the Regional DA FMR Registry or Database (ABEMIS) subject to the submission of the original copies of the following documents:
 - a. Certification from the concerned Municipal or City Local Government Unit or the concerned DPWH District Office that the proposed road is: (i) neither part of any higher road classification such as national, provincial, and municipal nor classified as industrial or farm-to-mill roads; and (ii) will not be reclassified/upgraded into national roads for the next ten years;



- b. Proponent LGU resolution or endorsement of the project stating its willingness to assist in the road right of way acquisition, allocation of budget for the perfection of the conveyance of Title of the road right of way, planning, construction, inspection and monitoring of the project, and its support in the operation and maintenance of the project after the turnover;
- c. Municipal/City LGU resolution to provide a counterpart of not less than ten percent (10%) of the project cost subject to their Internal Revenue Allotment (IRA), either in cash and/or in kind;
- d. Certification from the Local Chief Executive (LCE) of no road right-of-way (RROW) conflict;
- e. A notarized letter from the Project Affected Person (PAPs) such as land/property owner and authorized representative expressing his/her willingness to donate a portion of the private property to be acquired for the RROW, if a private property will be affected by the proposed FMR;
- f. Certification from the LCE and/or Municipal/Provincial Environment and Natural Resources Office (M/PENRO) that the proposed project has no adverse environmental impact within the Road Influence Area (RIA);
- g. Certification from the National Commission on Indigenous Peoples (NCIP) that the project will affect an ancestral domain of Indigenous People or Indigenous Cultural Communities (IP/ICCs) if applicable;
- h. Certification from the Barangay Chairperson expressing commitment and support to ensure safety and protection in the proposed FMR site/s and within the RIA if a disruption of the peace and order situation occurs during the project pre-construction, construction, and monitoring activities; and
- i. Copy of deed of donation and other conveyance instrument of the RROW prior to approval of the project

Please see Annex D (RAED Checklist)

3) The RAED shall coordinate and collaborate with the Agricultural and Biosystems Engineering (ABE) Units of the LGUs to assist them in the validation of FMR projects.

SECTION 6. Review and Approval- 1) The list of validated, eligible and with complete documentation requirements of proposed FMR projects shall be prioritized by RAED using Prioritization Indicators (See Annex E).

The weighted point allocation system shall be used and shall measure the relative importance of each criterion with respect to the project being evaluated. After assessing the proposed FMR, all points shall be summed-up per major category to obtain the total points earned. Further, the ranking of FMR projects as to priority shall consider the following:



- a. The threshold point or number of the total earned points for each proposal; and
- b. The amount available for implementation by summing up the estimated total cost of each project, starting from those which get the highest point in each legislative district until the amount available for funding is exhausted in the computation.
- The list of validated and prioritized FMR projects by province, district, municipality or city with its FMR Proposal Evaluation Reports (See Annex C, D and E) prepared and certified by RAED shall be endorsed by the concerned DA Regional Director to the FMRDP-PMO for consolidation. The DA Regional Director shall likewise harmonize the validated and prioritized FMR projects endorsed by the Congressional Representatives and LGUs and submit and recommend for approval to the Secretary through the FMRDP-PMO;
- 4) Eligible and prioritized FMRs projects that were submitted to FMRDP-PMO prior to the Annual Budget Call can be considered for inclusion in the DA budget proposal submission for the year. Otherwise it shall be considered in the next budget proposal cycle;
- 5) The FMRDP-PMO shall endorse through the Undersecretary concerned the list of prioritized FMR projects to the Office of the Secretary for approval.

SECTION 7. Endorsement for Funding-1) The DA Secretary shall endorse the approved list to the Department of Budget and Management (DBM) for funding under the annual National Expenditure Program (NEP);

Upon release of the list of FMR projects included in the NEP, the FMRDP-PMO shall provide a copy to the DA-RFOs to ensure that the following information such as: name, location, and amount of the project are in order and doesn't have any typographical errors (i.e. a) Concreting of Sitio A, Brgy. B to Brgy. C FMR, Barangay B*, Municipality/City, Province b) Concreting of Brgy. B and Brgy. C FMR, Barangay B and C**, Municipality/City, Province).

Note: * refers to the *direction* of FMR where it will be constructed.

**refers to 2 sites of different barangays and both will be constructed.

- 3) The RAED shall conduct review of the proposed projects under NEP. If a proposed FMR project is already funded by other government funding agencies, the replacement must come from the list of unfunded prioritized FMR project/s in the same legislative district.
- 4) The DA Regional Director shall submit the updated list of FMR projects to FMRDP-PMO for final review.



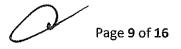
- Upon approval of the General Appropriation Act (GAA) for the year, the FMRDP-PMO shall ensure that the list of approved FMR projects are posted on the official website of DA and ABEMIS of the BAFE reflecting the following information:
 - (a) location of FMRs which must lead to local roads, national highways and key production areas;
 - (b) estimated length in kilometers of FMRs to be constructed;
 - (c) costing and project specifications;
 - (d) estimated number of farmer/fisherfolk beneficiaries; and
 - (e) status of implementation of the said projects.

SECTION 8. Coordination with DPWH on the implementation of funded FMR projects-The FMRDP-PMO and BAFE shall undertake close coordination with DPWH Central Office, as well as the DA RFOs through RAEDs with DPWH Regional and District Offices on the implementation and post implementation phases of funded FMR Projects.

Specifically, the FMRDP-PMO, BAFE and RAEDs shall provide assistance and necessary information to, and ensure with DPWH on the following:

1) Implementation Phase:

- a) Survey and Staking The FMRDP-PMO shall submit and provide the DPWH-Central Office with geotagged locations of the approved FMRs. The RAED together with the DPWH-District Engineering Office (DEO) shall conduct site survey and staking with the presence of concerned LGU and/or proponent group to ensure participatory validation and concurrence.
- b) Detailed Engineering Design (DED) and Program of Works (POW) Preparation:
 - b.1. The RAED shall secure from DPWH-DEO a copy of the DED and POW prior to procurement. Within three (3) days upon the receipt of the said documents, the DA Regional Director shall issue a No Objection Letter to DPWH-DEO.
 - b.2. The DED, POW, Detailed Unit Price Analysis (DUPA), Construction Schedule and other supporting documents for each project/road segment to be prepared by DPWH shall be in accordance with the existing design standards and specifications of DPWH as well as that prescribed by the Philippine Agricultural Engineering Standards (PAES)/Philippine Agricultural and Biosystems Engineering Standards (PABES) or PNS:PABES for FMR. (Annex F indicates the prescribed minimum design standards for FMR)
 - b.3. All FMRs shall be constructed to Portland Cement Concrete Pavement (PCCP) type to ensure access to all weather road that has longer economic life and lower maintenance cost;



- b.4. Inclusion of FMR slope protection structures using coconet or bioengineering technologies; and
- b.5. Promotion or adoption of polymer-based soil stabilizer pursuant to Item 206, Volume II of the DPWH Standards Specifications for Highways and Bridges and Airports- Chemically Stabilized Road Mix Sub-base/Base Course, aimed to reduce the cost of FMR construction;

c) Procurement Process

- c.1. The DA-RFO may send its RAED's representative who is knowledgeable on procurement process, an Agricultural and Biosystems Engineer, to attend during the conduct of procurement, as observer.
- c.2. The RAED shall secure from DPWH-DEO copies of procurement documents such as construction plans, POW, Approved Budget for the Contract (ABC), Detailed Unit Price Analysis (DUPA), Resolution of Award, Notice of Award (NOA), Bill of Quantities (BOQs)/Unit Bid Price Analysis, Notice to Proceed (NTP), and Contract Agreement for ready reference.
- d) Materials Testing and Quality Control (MTQC)- The DPWH-DEO shall ensure that all materials used in the FMR projects have passed the minimum material testing requirements. Prior to the construction, the RAED shall secure a copy of the test reports from DPWH or other DPWH accredited testing centers for ready reference, including the pouring permit and to witness concrete pouring and placing activity.

e) Signage and Marker

- e.1. Signboards as prescribed by DA (Annex G) showing the DA Logo shall be posted at conspicuous places at the beginning and end of the FMR section as per Commission of Audit (COA) Circular No. 2013-004 dated 30 January 2013. Ensure with DPWH-DEO that the signboards will remain in place throughout the project duration.
- e.2. The FMR Marker shall be placed at the beginning of the project, beside the shoulder and shall conform to the prescribed specifications as indicated in Annex H.

f) Monitoring and Progress Report Documentation

f.1. The RAED shall secure a copy of the monthly progress report (complete with latest photo) from the DPWH-DEO and copy furnish the FMRDP-PMO. Then the RAED or as deemed necessary with FMRDP-PMO, shall monitor the implementation of the FMR projects based on the submitted reports. The BAFE in coordination with FMRDP-PMO shall formulate the monitoring guidelines;

- f.2. The DA-RFO shall copy furnish the concerned Barangay/Municipal LGU with the DED and Bill of Quantities (BOQ) for its own monitoring of the project progress;
- f.3. The RAED shall facilitate the documentation of consolidated FMR reports and reflect it in the FMR Registry of ABEMIS. All documents generated and transmitted shall be consolidated, filed, and bound on the prescribed manner (Annex I);
- f.4. The BAFE in coordination with FMRDP-PMO shall collaborate with the Information and Communication Technology Service (ICTS) on the updating of FMRDP Web page in the Department of Agriculture Official Website.
- g) Constructors Performance Evaluation System (CPES)- The BAFE shall coordinate with DPWH for the conduct of CPES for the approved FMR projects. In order to complement the DPWH CPES, the DA-RFO however, may request PCAF, the DA CPES Implementing Unit (CPES-IU) to conduct CPES as deemed necessary to evaluate the performance of the Constructors based on the NEDA-approved CPES guidelines.

2. Post Implementation Phase

a) Completion

- a.1. After the completion of the project, the DA-RFO, DPWH-DEO and recipient LGU shall conduct a joint inspection to ensure the full delivery of the items/works specified in the contract and assess the status and condition of the road. Based on the result of the inspection, the DA-RFO shall secure a copy of the inspection report from the DPWH-DEO for any deficiency and recommend any appropriate action (e.g., price adjustment repair or removal and replacement, as the case may be). Before final inspection the DA-RFO and DPWH-DEO shall jointly conduct punchlisting inspection. Authorized representatives of the DPWH-DEO and the DA-RFO shall sign the Final Inspection Report and copy furnish the FMRDP-PMO.
- a.2. After complying the findings as stated in the Final Inspection Report, the concerned RAED shall secure the Certificate of Project Completion and Certificate of acceptance from the DPWH-DEO. The DPWH-DEO shall also issue the Certificate of Acceptance after the one-year Defects Liability Period (DLP) duly concurred by the DA-RFO.
- a.3. Upon the project completion, the DA-RFO shall secure a copy of the Terminal Report and its attachments (i.e. signed Certificate of Completion and Certificate of Acceptance) from the DPWH-DEO and copy furnish the FMRDP-PMO.

b) Acceptance and Turnover

The DA-RFO and DPWH-DEO shall jointly turnover the management and ownership of the FMR project to the local government unit. The latter shall commit to shoulder the operation and maintenance cost of the FMR through a MOA.

The DA shall execute a Memorandum of Agreement (MOA) with DPWH for the implementation of the FMR. Part of the MOA shall be the issuance of DA-DPWH Joint Circular on FMR implementation.

SECTION 9. *Monitoring and Evaluation*- The semi-annual monitoring and evaluation after the DLP shall be conducted by the FMRDP-PMO, BAFE and the DA-RFO Regional Operation and Maintenance Audit Team (ROMAT) to assess the status and condition of the of the project and the compliance of the MOA for the Operation and Maintenance.

SECTION 10. Geo-Tagging of FMRs- All FMR projects are required to have a geotagging reference before, during, and after completion of the project. (Please see ANNEX J—Guidelines on Geotagging)

SECTION 11. FMR Network Planning- 1) The RAED shall spearhead the preparation of FMR Network Plans in all agri-fishery based barangays of the municipalities within the province or cities of their respective regions in coordination with appropriate offices of the LGUs. This includes the inventory and location of barangay roads, sitio roads and other farm access roads (surface type either earth, gravel or concrete in km/shapefiles) within the agri-fisheries production areas. The road networks are overlaid to the Municipal/City Comprehensive Land Use Plan and the Municipal/City Local Road Network Plan, indicating the future land use of road location. As such, Municipal or City FMR Network Plans shall be prepared.

- 2) The RAED shall tap the assistance of and collaborate with the LGU's Agricultural and Biosystems Engineering Groups, SCUs and the Philippine Society of Agricultural and Biosystems Engineers in the preparation of FMR Network Plans;
- 3) The BAFE shall coordinate with the DILG for the inclusion of FMR Network Plans in the on-going preparation of the LGUs Local Roads Network Development Plans (LRNDP);
- 4) Provincial Road Network Plan involves consolidation the municipal/city FMR network plans. The list of barangay road networks shall be counter checked with the Provincial Development and Physical Framework Plan (PDPFP), Local Road Network Plan (LRNDP), Provincial Commodity Investment Plan (PCIP) and Value Chain Analysis (VCA) to identify the prioritized agricultural areas of growth at macro level. Agricultural Sector Analysis shall be undertaken using SAFDZ maps, suitability maps, soil maps, ground water maps, agri-fisheries infra location inventory, agri-machinery location inventory, and irrigation inventory;



- 5) Regional FMR consolidation of provincial road network plans will provide a macro level perspective which will be used for regional FMR investment planning.
- 6) National consolidation and review of Regional FMR Network Plan will be done by BAFE.

SECTION 12. *Variation/Extra Work/Change Order/Termination*- 1) In case of change of location of approved FMR projects, and unless otherwise authorized in the special provisions of GAA of the current Fiscal Year; the DA Secretary is authorized to make modifications provided that:

- a) The allotment released has not been obligated;
- b) Changes may only be done once except if due to the occurrence of calamities;
- c) The alternative proposal which the proponent shall endorse is included in the list of validated and qualified proposals submitted by the DA-RFO;
- d) Changes are within the same legislative district; and
- e) Changes will be undertaken by the same Implementing Unit.
- 2) In case of variation, the DA-RFO shall secure a copy for the revised DED and POW and submit a No Objection Letter to DPWH-DEO. For suspension, and time extension, the DA-RFO shall secure a copy of the approved Notice of Suspension and Resume Order, Notice of Time Extension, and other related documents from the DPWH-DEO;
- 3) In case of termination of projects, the DPWH shall similarly secure the concurrence of FMRDP-PMO with attached justifications;
- Savings incurred from the project may be utilized for the same project while savings generated from terminated projects may be used to augment FMRs listed and funded on the same year, with the recommending approval of the DA Secretary but subject to the approval of the DBM and accounting and auditing rules and regulations.

SECTION 13. *Institutional Arrangement*- The functions and responsibilities of various DA units are as follows:

1) Farm-to-Market Road Development Program Management Office (FMRDP-PMO)

An FMR Development Program Management Office (FMRDP-PMO) is hereby created which shall be responsible in the over-all supervision on the implementation of FMR projects of DA and coordination works with DA-RFOs, BAFE and various DA operating units, DPWH and other concerned government agencies. The FMRDP-PMO shall be headed by a Program Director which shall be supervised by an Undersecretary, both are designated by the Secretary of Agriculture. Specifically, the FMRDP-PMO shall have the following functions and responsibilities:

- a) Preparation of budget allocation per RFOs which will be submitted to DBM for inclusion in the next Fiscal Year (FY) NEP;
- b) Evaluation or review of the prioritized list of FMR projects endorsed by the RFOs and ensure completeness of the requirements prescribed by this guidelines. The prioritized list of FMR proposals with their rankings shall be included in the pipeline or list of FMRs for funding, and submit the consolidated prioritized proposal to the Secretary for subsequent endorsement to DBM and DPWH;
- c) Ensure that the ongoing construction of the FMR projects are properly and adequately monitored by RAEDs so that the standard set forth by the DPWH is observed by the contractors.
- d) As deemed necessary, monitor FMR projects funded under the Regular Funds or under the General Appropriations Act (GAA), inspect the road quality and geotag the completed project to ensure that the FMR project is implemented in the correct road section by counter-checking its coordinates in the validation conducted before the implementation of the project.

The FMR-PMO shall likewise compose of technical and administrative personnel, and the provision of funding and other logistical support for its operation.

2) Bureau of Agriculture and Fisheries Engineering (BAFE)

Pursuant to Section 24 of RA No. 10601 and DA AO No. 05, Series of 2020, the BAFE shall, among others:

- a) Establish and maintain a national database (ABEMIS) of FMR projects implemented by the various DA bureaus, attached agencies, Regional Field Offices (RFO), as well as other national government agencies and Local Government Units (LGU);
- b) Spearhead the preparation and updating of Farm-to-Market Road Network Plan in collaboration with FMRDP-PMO, DA RFO-RAEDs and other concerned DA bureaus and attached agencies/corporations;
- c) Prepare and update the FMR validation, design and construction protocols in coordination and collaboration with DPWH, PRDP and FMR-PMO;
- d) Coordinate and collaborate with the Bureau of Agricultural and Fisheries Standards (BAFS) in the development and/or updating of the Philippine Agricultural and Biosystems Engineering Standards (PABES) for FMR;
- e) Coordinate, oversee and monitor the conduct of Constructors' Performance Evaluation System (CPES) of DA funded FMR projects; and
- f) Conduct capacity building program with ATI for Agricultural and Biosystems Engineers and other FMR workforce of DA, LGUs and other agencies on FMR design and implementation;



3) Department of Agriculture Regional Field Office (DA RFO)

The DA Regional Field Offices (RFOs) through the RAED shall serve as the DA field implementing arm of FMRDP-PMO. The RAEDs shall:

- a) Validate all proposed FMR projects in their respective regions from various proponents using the geo-tagging guidelines;
- b) Prepare validation reports indicating the results, whether the proposed project is technically feasible or not;
- c) Regularly updates the information provided in the ABEMIS;
- d) Prepare endorsement letter of the Regional Director on the list of FMR projects to the FMRDP-PMO for further review and approval of the Secretary:
- e) Monitor the implementation FMR projects in coordination with DPWH-DEO;
- f) Prepare regular progress report for submission by the Regional Director to the FMRDP-PMO; and
- g) Provide assistance to FMRDP-PMO and BAFE in the performance of their functions.
- h) Coordinate and collaborate with the Agricultural and Biosystems Engineering Groups of LGUs in the field implementation of FMR projects.

The Regional Director shall ensure that the prioritized FMR projects endorsed to FMRDP-PMO for approval by the Secretary have complied all the requirements prescribed by this guidelines.

4) DA- Information & Communication Technology Service (ICTS)

The DA ICTS shall serve as the service provider for the data of Farm-to-Market Road Information System in ABEMIS.

5) Philippine Council for Agriculture and Fisheries (PCAF)

The PCAF as the advisory body and the Constructors Performance Evaluation System Implementing Unit (CPES-IU) of Department of Agriculture shall facilitate the conduct of CPES Evaluation for FMR projects using the DA Department Circular No. 1, Series of 2019 re: "Guidelines for the Implementation of CPES at Department of Agriculture".

Moreover, the PCAF shall facilitate the conduct of participatory monitoring and evaluation of the completed FMR projects by the Agricultural and Fisheries Councils (AFCs).

Please see Annex K for the Operational Structure of FMRDP



SECTION 14. Funding – The funding necessary for the implementation of this AO shall be included in the annual planning and budgeting proposals under the GAA by the DA, BAFE, and its other concerned bureaus, attached agencies/corporations and DA-RFOs.

SECTION 15. Separability Clause – If any section or provision of this AO is held or declared unconstitutional or invalid by a competent court, the other sections or provisions hereof shall continue to be in force as if sections or provisions so annulled or voided had never been incorporated herein.

SECTION 16. Repealing Clause – All DA administrative issuances or parts of said administrative issuances inconsistent with this AO are hereby revised, amended, modified and/or superseded as the case may be by this AO. DA Administrative Order No. 4, series of 2016 is hereby expressly repealed.

SECTION 17. *Effectivity* – This issuance shall take effect fifteen (15) days after publication in the Official Gazette or in one (1) newspaper of general circulation.

APPROVED this day of MAY 2020.

WILLIAM D. DAR, Ph.D.

Secretary av

DEPARTMENT OF AGRICULTURE

in replying pls cite this code : For Signature: S-05-20-0074 Received : 05/08/2020 11:22 AM



FARM-TO-MARKET ROAD DEVELOPMENT PROGRAM (FMRDP) IDENTIFICATION AND SOCIAL PREPARATION

Regional Agricultural Engineering Division

CHECKLIST OF REQUIRED SUPPORTING DOCUMENTS

These are the following requirements to be submitted by the proponent prior to validation:

	Requirements		ched	Remarks
			No	Kemai KS
1	Letter of intent or resolution stating the need for connecting the production area to the market through the construction of FMR and endorsed by the LGUs;			
2	Local Road Network Map- showing the accessibility and connectivity of the proposed road to equal or higher road classification and to market or trading center/agricultural infrastructure facility;			
3	Prioritization template accomplished by the LGU/proponent (downloadable in BAFE Website or ANNEX B).			
4	Certification from Municipal or Provincial Planning Development Officer that the proposed FMR project is included in the Local Development Investment Plan (LDIP) or Local Agriculture and Fisheries Modernization Plan (AFMP) or Provincial Commodity Investment Plan (PCIP) wherein the proposed FMR project is in consonance or has been identified as a priority investment.			
5	Endorsement from the Regional Development Council that the project is part of the Regional Development Plan (RDP).	- 11 11 11 11 11 11 11 11 11 11 11 11 11		100

DESIGNATION	

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ANNEX B



FARM-TO-MARKET ROAD DEVELOPMENT PROGRAM (FMRDP) PROJECT VALIDATION

LGU PRIORITIZATION PROFILE

tion: Please fill out the ne	cessary data that sui	t the most app	ropriate re	sponse in each par
E OF FMR PROJECT	•			
ATION	:			
IMATED LENGTH (KM)				· · · · · · · · · · · · · · · · · · ·
ritization Indicators with	nin the Road Influe	nce Area (RI	A) within !	500meters radiu
Estimated RIA				
	RIA	And the second s		Area (ha)
Existing Agricultural Prod	luction Area			
Potential Agricultural Pro	duction Area			
		Total		
	19 ⁴⁴⁻¹⁹⁴ -194-194-194-194-194-194-194-194-194-194			
Major Agrigultu	val Dvo du ata	Anac	ha)	Yield/ha
Major Agricultu	rai Froducts	Area (naj	(MT)
1.				
2.				
3.				
4.				
5.				
Т	otal			



II. Beneficiaries

Beneficiaries	Number
Farmers/Fisherfolk	
Households	S - O O O O O O O O O O O O O O O O O O
Agrarian Reform Beneficiaries	
Indigenous People	

III. Present Road Condition

Present condition of existing road being used by human or vehicular/other means of transport within the RIA.

Road Condition	Description	Remarks Put (X) if applicable
Very Bad	Very Bad Footpath or trail is the only access going in and out of the RIA.	
Bad	Road is not passable in most days of the year. Very muddy with deep potholes during rainy season while dusty during summer time.	THE STATE OF THE S
Poor	Road is passable in most days of the year. Muddy with potholes during rainy season. Requires regular maintenance after rainy season.	
Fairly good	maintenance and restoration after rainy season.	
Good	Good Road is unpaved but passable throughout the year.	
Very Good	Road is paved, all weather and passable throughout the year.	

ACCOMPLISHED BY:	APPROVED BY:		
Name	Local Chief Executive		
Date	Date		





FARM-TO-MARKET ROAD DEVELOPMENT PROGRAM (FMRDP) PROJECT VALIDATION

CHECKLIST FOR THE VALIDATION OF FMR

To ensure the proper selection and maximize the impact of the proposed FMR projects, the following criteria shall be considered in the initial screening:

	Requirements	Attached		Remarks	
	nequis ements	Yes	No	Remarks	
1	The FMR serves a road influence area (RIA) that has significant agricultural potential (i.e. Farm-to- Market Road refers to road within the agriculture and fisheries production areas, coastal landing points, post-harvest or processing facilities that links to local roads, national highways and market;				
2	It is part of a connected road network system that provides vital access to and from the existing or potential key production areas and the nearest market centers (e.g., trading post, public market, port or administrative center, postharvest processing facility), or agri-tourism areas;				
3	It is linked to an all-weather road of equal or higher quality;				
4	It must have a minimum length of 1.00 kilometer for both flat and rolling terrain and inclined steep areas (special areas) to enhance impact and for cost efficiency;				
5	The proposed road section is one continuous road;				
6	The FMR has a minimum perpendicular distance of one (1) kilometer to another concreted road or road scheduled for construction. Exemption shall apply for those project: 1) located in the area with natural barriers, 2) provide direct access to post harvest facilities, Small Scale Irrigations Projects, costal landing points, agri-tourism sites and other agri-infra projects.				
7	It is within the Strategic Agriculture and Fisheries Development Zones (SAFDZ)				
8	It shall benefit the farmers, fisherfolk, and agrarian reform community within the barangay or cluster of barangays;				
9	It has no adverse environmental impact within the RIA; and			***************************************	
10	The proposed FMR projects should be included in the FMR network plan/ Regional Development Plan (RDP) submitted by the LGU through DA-RFO to avoid duplication or overlapping of projects.				

(W)



Republic of the Philippines

DEPARTMENT OF AGRICULTURE

Bureau of Agricultural and Fisheries Engineering Farm-to-Market Road Development Program

Elliptical Road, Diliman, Quezon City

VALIDATION/ EVALUATION FORM

Farm-to-Market Roads

Date:
ic Information of the Proposed FMR Project roject:
(Specific Road Stationing if applicable, fromto)
Barangay: City/
City/
Province:
1 TOVINCE.
: (Start)
oad Length (in km.): Estimate Cost of the Project (PhP):
egate Road Sections to be covered by the project) (in meters): <u>Imust be based on the estimated AADT, 4 meters for 200 and below and 5 meters for 200 above)</u>
rks: (Indicate all expected items of work to be done during site visit)
ITEM 100 Clearing and Grubbing ITEM 102 Excavation ITEM 104 Embankment ITEM 105 Subgrade Preparation ITEM 200 Aggregate Sub-Base Course ITEM 201 Aggregate Base Course ITEM 311 Portland Cement Concrete Pavement (PCCP) Others, specify:
uctures: (Specify drainage structures and quantity needed for road accessibility and climate-
Bridge Drainage pipe Culvert Vented Spillway Side Drainage Ditch Overflow Spillway Box Culvert Slope Protection (Riprap/ Stone Masonry) Others, specify:

Page 2 of 5

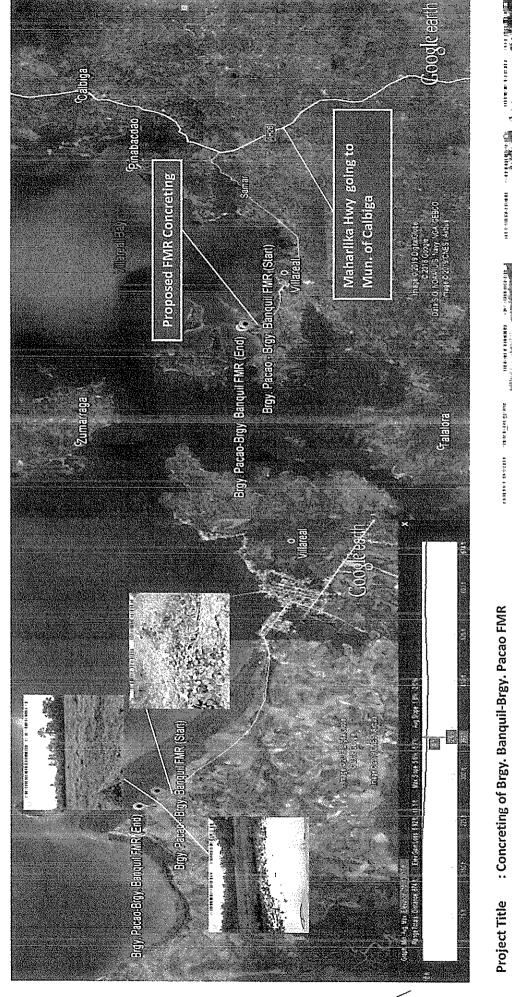
Present Road Surface Condition		Present Road Classification			
☐ Earth		☐ Trail/ Foot/ Tire Path			
Graveled		☐ Callejon Road			
Asphalt		☐ Private Road			
☐ PCCP		☐ Barangay Ro			
Other, specify:					
Accessibility of the Area (Note: Attac	h the Barangay	FMR Network Map)			
Name of Road, which the proposed FM	IR will be conn	ected: (road section	where the beginning of the project		
is connected)					
Road Classification:					
☐ Barangay ☐ Mu	inicipal I	☐ Provincial	☐ National		
Distance to Nearest Market/ Trading C					
Name of Market:					
Specific Location:					
Proximity to Nearest Parallel Road (in l			e project to another concreted		
roads)					
Counterpart Funding Scheme (if application)	able)(10%):				
Source		In-Kind	Amount		
(LGU etc.)	(Labo	r, Materials, Cash)	(PhP)		
ALCOHOLOGICAL DISCONDER LA CONTRACTOR CONTRA			Martin Ma		

Development Type:					
Construction of new road	d/road opening	: Rel	habilitation/ Improvement		
(concreting)					
Implementing Agency:(supervised and	monitored the	construction of the p	project)		
☐ DA-RFU	☐ LGU				
☐ DPWH	☐ Others, S	pecify:			
Mode of Implementation:	_ ,	• • • • • • • • • • • • • • • • • • • •			
☐ By Administration	☐ By Contr	act			
Connectivity Rating:					
Local Traffic	☐ Through	Traffic			
	111, Oug.	Transc			
Climate Vulnerability:					
Is the FMR site prone to any irregular e	environmental	occurrence that wou	ld adversely affect the condition of		
the present access way such as:			a davasas, direct the donation of		
Flooding	☐ Erosion	Others, spe	cifu:		
L. Hooding		Others, spe	city.		
Siltation	☐ Drought				
Observations/Findings:					

0

Other Required Information:

The FMR falls within Protected Area: Yes The FMR falls within Ancestral Land: Yes	No(Indicate the Protected Area Landscape authority No(PAPs are Indigenous People/ Indigenous
Cultural Communities)	(i.i.) are margenous reopie, margenous
With Road Right-of-Way issue? :Yes No_	
Land owners are willing to donate properties within	n road project right-of-way: Yes No
If No, specify the agreements with the Project affe	cted land owners:
EXISTING PRODUCTION AREA: (Farmer Beneficiarian Number of Farmer Beneficiaries: Agricultural Commodities:	
Commodities	Hectares
Others, Specify:	
	TOTAL
POTENTIAL PRODUCTION AREA: (Farmer Beneficial Number of Farmer Beneficiaries:	
Commodities	Hectares
Others, Specify:	
	TOTAL
Prop	onent's Profile
	pposal to concern LGUs/ government agencies)
Name:	
Agency: Contact Number:	
Recommendations/Comments: (Please indicate whethe Geotechnical/Quarry Site/Disposal Site/ Road Safety Fea	
Prepared/ Validated By: Recommended	By: Noted By:



11°34'28.32"N : Brgy. Banquil and Pacao, Villareal, 2^{nd} District Samar End 11°34'24.57"N 124°54'30.56"E : Start Coordinates Location

124°54'24.99"E



Start (BACK)

Start (FRONT)







End

End (FRONT)

Page 5 of 5



FARM-TO-MARKET ROAD DEVELOPMENT PROGRAM (FMRDP)

CHECKLIST OF REQUIRED SUPPORTING DOCUMENTS AFTER VALIDATION IF FOUND FEASIBLE

FMRs that were found feasible during field validation will be updated in the Regional DA FMR Registry or Database (ABEMIS) subject to the submission of the original copies of the following documents:

	Poquiroments Attached			
	Requirements	Yes	No	Remarks
	Certification from the concerned Municipal or City Local Government Unit or the concerned section of DPWH District Office that the proposed road (i) is neither part of any higher road classification such as national, provincial, and municipal nor classified as industrial or farm-to-mill roads; and (ii) will not be reclassified/upgraded into national roads for the next ten years;			
2	Proponent LGU resolution or endorsement of the project stating its willingness to assist in the road right of way acquisition, allocation of budget for the perfection of the conveyance of Title of the road right of way, planning, construction, inspection and monitoring of the project, and its support in the operation and maintenance of the project after the turnover.			
3	Municipal/City LGU resolution to provide a counterpart of not less than ten percent (10%) of the project cost subject to their Internal Revenue Allotment (IRA) in the area. The said counterpart may be in cash and/or in kind.			
4	Certification from the Local Chief Executive (LCE) of no road right-of-way (RROW) conflict;			
5	A notarized letter from the Project Affected Person (PAPs) such as land/property owner and authorized representative expressing his/her willingness to donate a portion of the private property to be acquired for the RROW, if a private property will be affected by the proposed FMR;			

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ANNEX D

6	Certification from the LCE and/or Municipal/Provincial Environment and Natural Resources Office (M/PENRO) that the proposed project has no adverse environmental impact within the Road Influence Area (RIA).		
7	Certification from the National Commission on Indigenous Peoples (NCIP) that the project will affect an ancestral domain of Indigenous People or Indigenous Cultural Communities (IP/ICCs) if applicable.	AA TIME	
8	Certification from the Barangay Chairperson expressing commitment and support to ensure safety and protection in the proposed site and within the RIA if a disruption of the peace and order situation occurs during the project pre-construction, construction, and monitoring activities.		 V/ L
9	Copy of deed of donation and other conveyance instrument of the RROW prior to approval of the project.		 ,p. 444ab.

Спескей бу:	
NAME :	
DESIGNATION:	
DATF:	

0



FARM-TO-MARKET ROAD DEVELOPMENT PROGRAM (FMRDP) PROJECT VALIDATION

PART IV. PRIORITIZATION INDICATORS

Direction: Please fill out the necessary data that suit the most appropriate response in each parameter then write the corresponding points of your answer. Write the points in the box provided.

Prioritization Indicators within the Road Influence Area (RIA)

I. Estimated RIA, 20 points

RIA	Area (ha)
Existing Agricultural Production Area	
Potential Agricultural Production Area	
Tota	1

Area (hectares) Po	int
201 or more	15
151-200	12
101-150	9
51-100	6
50 or less	3

Sub-points:	

Potential Agricultural Production Area

Area (hectares) Po	int
101 or more	5
75-100	4
51-75	3
26-50	2
25 or less	1

Sub-points:	
oun-homes:	

I. Points:

II. Agricultural Potential Indicators, 20 points

	Major Agricultural Products	Area (ha) A	Yield (MT) No. heads for Livestock*
1.			
2.			
3.			
4.			
5.			
	Total		

Production area of livestock and/or poultry	y
and/or fisheries:	

Total production Area (ha)	'oint
201 or more	- 10
151 to 200	- 8
101 to 150	6
51 to 100	4
50 or less	2

Sub-points:	
-------------	--

Annual Average production volume in metric tons (MT) of 5 major agricultural products within the RIA.

Total production volume (MT)	Point
1,201 or more	10
901-1,200	8
601-900	- 6
301-600	- 4
300 or less	- 2

Sub-points:	

II. Points:

(a)

III. Present Road Condition, 5 points

Present condition of existing road being used by human or vehicular/other means of transport within the RIA.

Road Condition	Point	Description
Very Bad	10	Footpath or trail is the only access going in and out of the RIA.
Bad	8	Road is not passable in most days of the year. Very muddy with deep potholes during rainy season while dusty during summer time
Poor	6	Road is passable in most days of the year. Muddy with potholes during rainy season. Requires regular maintenance after rainy season.
Fairly good	4	Road is passable in most days of the year. Requires regular maintenance and restoration after rainy season.
Good	2	Road is unpaved but passable throughout the year.
Very Good	0	Road is paved, all weather and passable throughout the year.

III. Points:

IV. Number of beneficiaries in Barangays within the RIA, 20 points

Total population of beneficiaries within the RIA.

Population	Point
2,001 or more	20
1,501-2,000	15
1,001-1,500	10
1,000 or less	5

IV. Points:

(D

Average Daily Traffic (ADT), 10 points

No. of vehicles passing

Population	Point
201 or more	- 10
151-200	- 8
101-150	6
100 or less	4

IV.	Points:	

V. Vulnerability of the Project Site (10 points)

Is the FMR site prone to any adverse environmental occurrence (flooding, siltation, and erosion) that would adversely affect the condition of the present access way. (determine the technical description of level of vulnerability from BSWM/AMIA/CCC)

Vulnerab	oility	Point
2. Moder	Inerable ately vulnerable?ulnerable	5

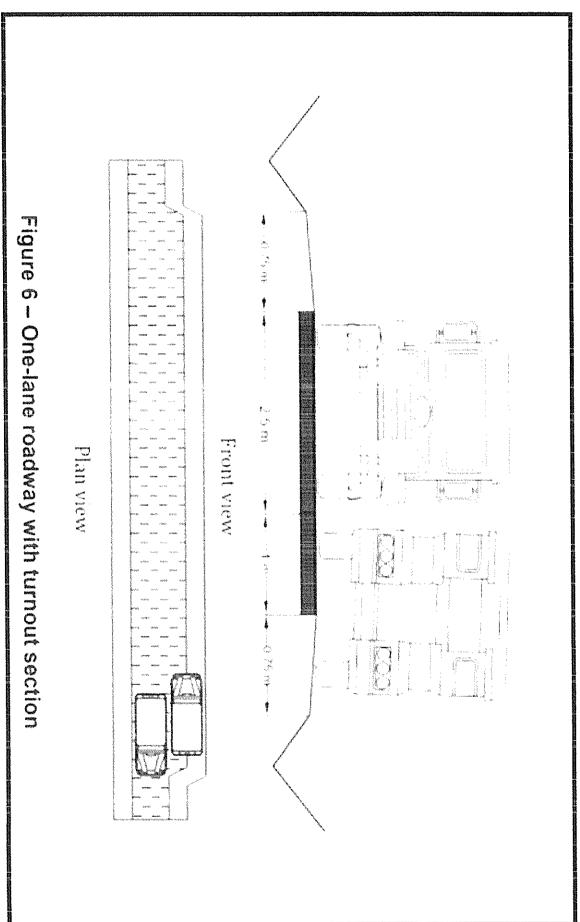
		V. Points:	
I.	Estimated Road Influence Area	20	
II.	Agricultural Potential Indicator	20	
III.	Present Road Condition	10	The second secon
IV.	Number of Beneficiaries	20	
٧.	Average Daily Traffic (ADT)	10	
VI.	Climate Change Resiliency/Adaptation	20	
	· · · ·		***************************************

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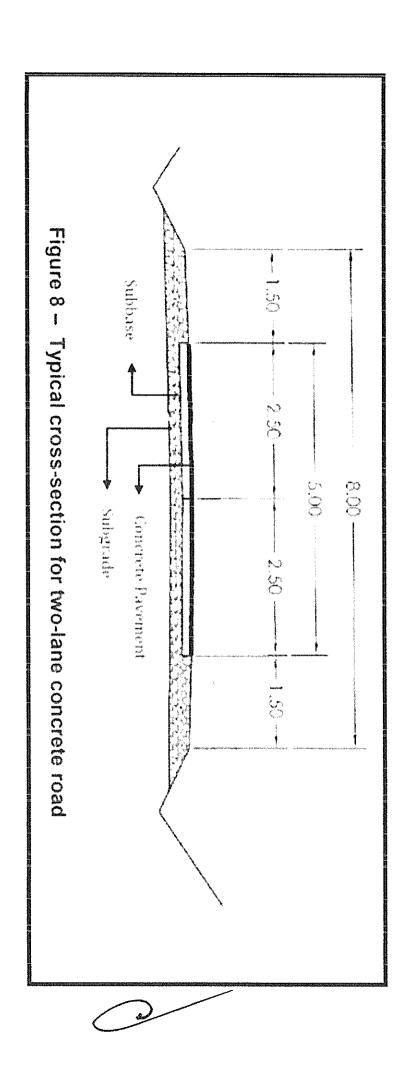
Total Points:

ANNEX E

Validated and Evaluated by:	
RAED Technical Staff	FMRDP Focal Person/Position
Date	Date
Noted by:	
RAED Chief/Supervising Officer	_
Date	



(a)



ANNEX F



DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
CENTRAL OFFICE Republic of the Philippines

10.21.019

PARK

DEPARTMENT ORDER

Series of 2019-YY. 19

SUBJECT: REVISED DESIGN STANDARDS FOR TOURISM AND FARM TO MARKET ROADS

In line with the mandate of the Department to ensure the quality and safety of road infrastructure, hereunder are the prescribed minimum design standards for tourism and farm to market road projects, for the guidance and compliance of all concerned.

Parity Flancat		Requirements
Design clement	(Figure 1)	(Figure 2 & 3)
	Portland Cement Concrete	
Pavement Type	Pavement (PCCP)	PCCP
		Fig. 2: Minimum of 5.0m for two-
Pavement Width	Minimum of 6.1 m for two lanes	than 200
		Fig. 3: Minimum of 6.1m for two-
		 Average daily traffic
		between 200-400
•	Minimum of 230mm (9 inches)	Minimum of 200mm (8 inches)
	(Higher Thickness of pavement	(Higher Thickness of pavement may
	may be adopted out shall be	be adopted but shall be verified
	verified from pavement design	from pavement design analysis
Pavement	analysis using Avanto metrioo	ASITO Electron de
Inickness	Guidelines Criteria and Standards	Criteria and Standards considering
	considering the latest Annual Average Daily Traffic and Axle	the latest Annual Average Daily Traffic and Axle Loading).
Charles	Loading).	2 (A)
• Width	Minimum of 1.5m	 Minimum of 1.5m
 Material 	 Minimum of gravel surfacing 	 Minimum of gravel surfacing
Roadway Cross	1.50 % for PCCP	1.50 % for PCCP
Slope		The second secon
Shoulder Cross	3.0 % for Gravel Surfacing	3.0 % for Gravei Surfacing
Radius of	Minimum of 50m	Ninimum of 30m
Horizontal Curve		
Length of Tangent between reverse	Minimum length of 30m	Minimum length of 30m
Curves	Tourism Roads	Farm to Market Roads
ennth of Vertical	(Figure 1) Minimum length of 60m	(Figure 2 & 3) Minimum length of 60m
Curve		1

D.O. No. 112 5-2019

Design Speed	60 km/hr for flat terrain	70 7 10
-	 30 km/hr for mountainous terrain 	to sign on entain type
	Minimum of 0.50% on cut section	Minimum of 0.50% on cut section
Longitudinal	and maximum of 12% on cut/fill	and maximum of 12% on cut/fill
Grade	section	section
	 Cut slope of 1.5:1 to 1:1 for 	 Cut slope of 1.5:1 to 1:1 for
		aterials
	 Cut slope of 0.5:1 to 1:1 for 	Cut slope of 0.5:1 to 1:1 for
Side Slope Ratio		
(H:V)	 Cut slape of 0.25:1 to 0.5:1 	 Cut slope of 0.25:1 to 0.5:1 for
	for hard/solid rock	hard/solld rock
	 Maximum fill slope of 1.5:1 	Maximum fill slope of 1.5:1
	 Box Culvert: 25 - year flood 	Box Culvert: 25 - year flood with
	with sufficient freeboard to	sufficient freeboard to contain
3	contain the 50 – year flood	
Road Drainage	 Pipe Culvert: 15 — year flood 	 Pipe Culvert: 15 - year flood
	with sufficient freeboard to	sufficient freeboar
	contain the 25 – year flood	year flood
	 Minimum size of 910 mm in 	Minimum size of 910 mm in
)	clame;er	d'ameter
Siope Protection	As Needed	As Needed
Road Safety	 Refer to DPWH Highway 	 Refer to DPWH Highway Safety
Devices including	1 Standa	Design Standards, Part 2 (May
Markings	2 (May 2012)	2012)
Accessibility	The state of the s	
Requirements for	As Needed	As Needed
Yith		1
Disability		
	Permanent structures	 Permanent structures
	or steel)	(concrete or steel)
	 Structural design based on 	Structural design based on
	AASHTO HS20-44, using 0.4g	HS15-44, using 0.
		acceleration coeff
Bridges	ent for seis	
	and 50 - year flood frequency	eccy
	for hydrautic analysis.	uic analysis,
	 Carriageway Width = 6.70m 	Carnageway Width:
		 4.60m (for 4.0m roacway
		width Fig. 2)
		 5.60m (for 5.0m roacway
	The second secon	wain rig. 3)

)

This order shall amend /modify Department Order No. 11, s. 2014 and other previous issuances inconsistent nerewith and shall take effect immediately.

MARK A. VILLAR
Secretary

Operation of Super Mechanisms of the Second of Sec

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Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
OFFICE OF THE SECRETARY Manila

JAN 1 4 2020 DEPARTMENT ORDER)

SUBJECT: Amendment to D.O. No. 112, s. 2019 re:
"Revised Design Standards for Tourism
and Farm to Market Roads"

For consistency, and to further provide specific guidelines in the design standards for tourism and farm to market road projects, the following modifications in the hereunder specified design elements and requirements for tourism and farm to market roads per D.O. No. 112, s. 2019 are hereby prescribed:

Slope Protection As needed Ri	Per D.O. 112, s. 2019	Tourism and Farm	Bridges • 4 60m (for 4 0m roadway width) • Carriageway Width • 5 60m (for 5 0m roadway width) •	Pavement Width • Average daily traffic between • 200 - 400	Design Elements Per D.O. 112, 5, 2019	Farm to Market Road
Requirement and selection of type as per attached "Annex A"	This Amendment	Tourism and Farm to Market Roads	4.60m (for 4.0m roadway width) • 5.60m (for 5.0m roadway width) 5.60m (for 5.0m roadway width) • 6.70m (for 6.1m roadway width)	 Average daily traffic of 200 and above 	This Amendment	arket Road

enforced until such future amendments or revision relative thereto is issued. All the other design standards specified in Department Order No. 112, s. 2019 shall remain

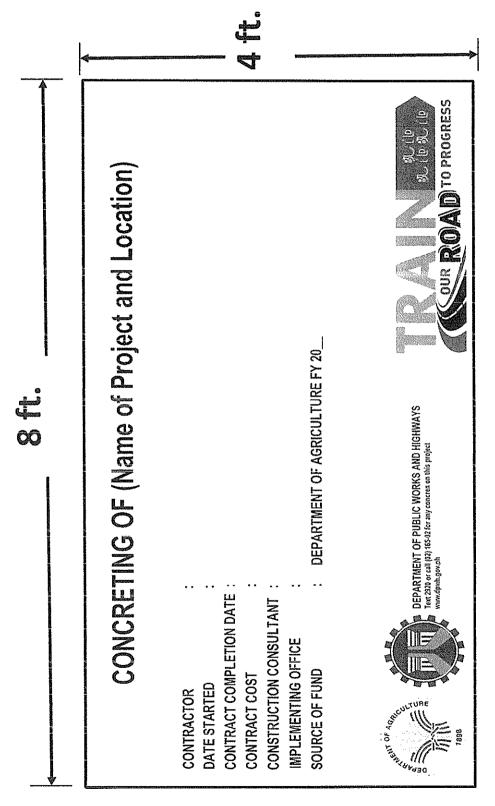
This Order shall take effect immediately.

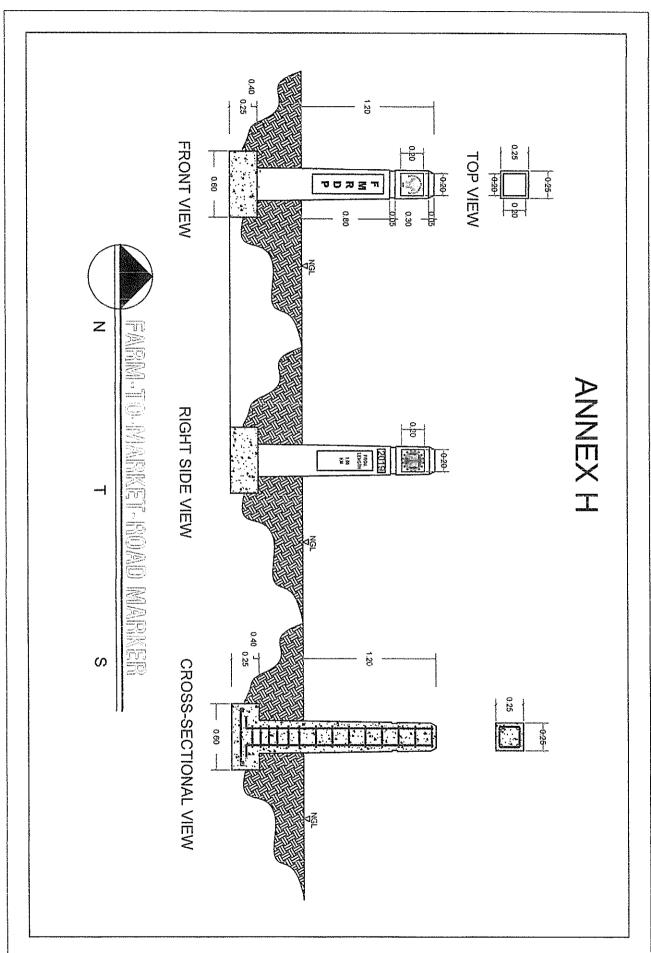
MARK A, VILLAR Secretary

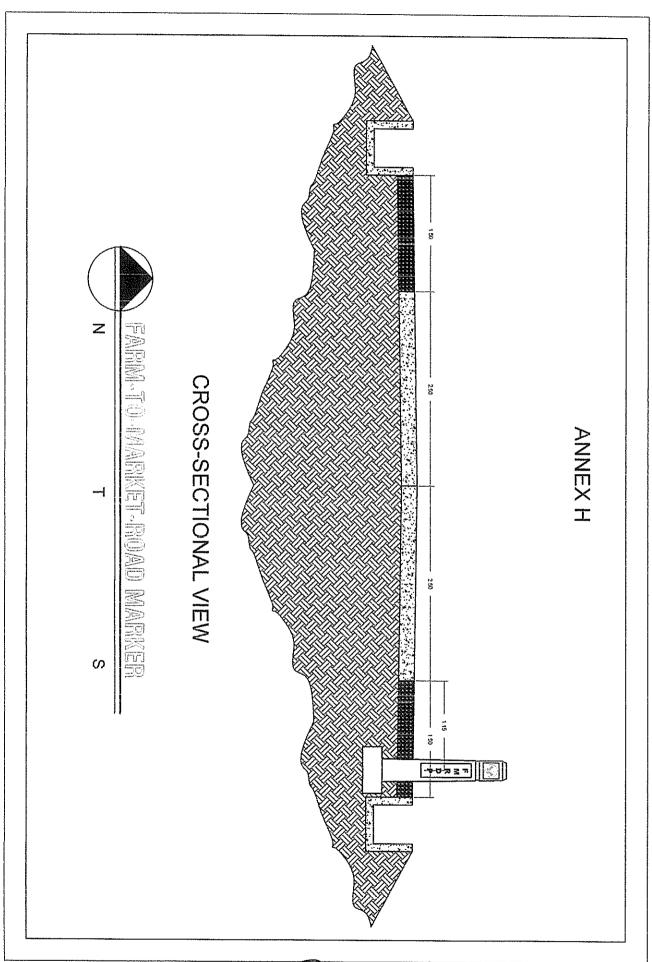
5.1 DUB/ECM/AMD

WINORO1523

FARM-TO-MARKET ROAD SIGNBOARD









Republic of the Philippines **DEPARTMENT OF AGRICULTURE**Regional Field Office __

<u>RFO Address</u>

<u>Contact No.</u>

FMR TITLE FMR ID

Location Coordinates

Project Cost

FMR Documentation

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--------------------	---

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FMR Documentation

<u>la</u>

GUIDELINES FOR GEO-TAGGING OF FARM-TO-MARKET ROADS

PRDP's Applied Geotagging Technology (AGT) or simply geo-tagging is its latest innovative tool for subproject identification, validation, monitoring and supervision. This technology is utilized as a web-based mapping system that is Google Earth-based tracking of infrastructure, livelihood and agri-fishery facilities. This has paved for virtual monitoring of the real condition of the subproject sites without really conducting actual site visits, hence promoting greater transparency and total public disclosure of project implementation.

This technology will be adopted by the FMRDP and will serve as guidelines, policy, requirements. FMRDP will use the PRDP camera application or DA Camera apps and subprojects viewing through BAFEs Agricultural and Biosystem Engineering Management Information System (ABEMIS).

Geotagging is the practice of associating a digital resource (e.g. photos, website, SMS) with a physical location. Location information is typically given in terms of latitude and longitude coordinates, which can pinpoint any place on the planet with a high degree of precision. With this freely available mobile consumer's technology, the Philippine Rural Development Project (PRDP) has made innovations for an enhanced transparency tool known as the Applied Geotagging Tool" or AGT. The World Bank also dubbed it as a revolutionary and inexpensive approach on using ICT applications.

The AGT combines basic engineering review tools and supervision experiences with location-based digital technologies such as GIS, GPS and Geo-tagging. This will enable the user to remotely view the subproject on its actual location as well as its physical progress of implementation. It also allows the user to see the total developmental impact of the subproject relative to its access, links, and influence areas. Moreover, FMRDP will be using a customized geo-tagging camera application with built-in security against digital hacks or modification. Presently, this application supports limited geotagging devices but yet to be further developed in the course of implementation. The camera application with installation instruction can be downloaded using the link: http://prdp.da.gov.ph/resources/prdp-geo-tagging-camera-androidapplication/

1. Basic Requirement

Geotagging Device

It requires cellular phone or tablet with camera and build-in GPS/GLONASS embedded chipsets running android OS with a minimum camera resolution of 3 megapixel. Geo-tagging does not need TELCOS signal to function.

2. Geo-tagging Operationalization

Geo-tagging does not require specialized technical skills to enable users to operate the tool. Users should be physically fit to do geo-tagging on the ground and at least knowledgeable in operating tablets and personal computer.

- **Field Viewing/Data Gathering.** Using the geo-tagging device, RAED Engineers make a lot of ground activity, recording GPS tracks and taking geotag photos at critical sections or points of the project site. Geo-tagging of subproject shall obtain GPS tracks and geotag photos from a particular starting reference point (e.g. the municipal office and/or its vicinity) going to the exact location/position of the subproject.
- **Exporting Tracks and Geotag Photos.** From the geo-tagging device, GPS tracks and geotag photos are exported to the PC. Exported tracks and geotag photos are saved in folders and organized according to name of subproject or this can be digitized using polylines and/or polygon drawing tools of Google Earth Pro.
- **Uploading Geotag Photos using the ABEMIS**. ABEMIS is the official MIS for FMRDP. All data and geotagging photos should be uploaded to ABEMIS. By logging in on the user's account, geotag photos are then uploaded to the MIS. Once uploaded, the location are display in on-line geomapping portal of ABEMIS where it can view its location.

3. Frequency of Geo-tagging activities

Geotagging has become an integral requirement in all the phases of project cycle from subproject identification, validation, procurement, supervision and operations and maintenance. Geotagged photos are required as part of subproject proposal preparation, procurement activities, on-going construction, final inspection, operation management and audit system.

During implementation, the geotag schedule is enforced with regular submission of geotagged photos and Google Earth placemark files to the administrator to visually monitor and validate physical progress of project implementation. Compilation of the submitted geotagged photos will create before-during-after scenarios of the subproject, hence resulting in a web-based mapping system.

A geotag schedule is designed to determine the frequency of geotagging activities throughout the implementation depending on the subproject type as outlined below:

Table 1. Frequency of geotagging activities throughout the implementation

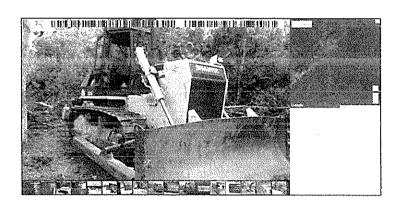
	Level of Implementation			
Proposed Ongoing Completed Operations &				
(Executed by the	(Executed by RAED and	Executed by	Maintenance	
RAED during field	LGU engineers every	RAED and LGU		
validation)	month based on SWA)		(Executed by	
vanuationj	monui based on swaj	engineers and	RAED and LGU	
		Joint	every Audit)	
		Inspectorate		
CDO:		Team)		
• GPS track of	 Geotag photos of 	• GPS track of	Update (every	
FMR or	committed equipment	FMR or	0&M audit)	
digitized	"on-site"	digitized	Geotag photos	
polyline from	- Equipment	polyline	of FMR at 100	
sta 0+00	:Full View	 Geotag photos 	meters	
Geotag photos	:Close-up view on	of FMR at 50	interval, special	
of FMR at 50	serial number	meters interval	structures (e.g.	
meters interval	- Transport	and special	cross drains,	
and special	:Full View	structures (e.g.	PCCP, box	
structures (e.g.	:Close-up view on	cross drains,	culverts, line	
cross drains,	Plate Number and/or	PCCP, box	canal, slope	
PCCP, box	Body/Chassis	culverts, line	protection	
culverts, line	Number	canal, slope	structures, etc.)	
canal, slope	 Progress Monitoring 	protection	and OMAS	
protection	-Quarry Sites	structures, etc.)	Concern (e.g.	
structures, etc.)	-Quality testing	, , , , , , , , , , , , , , , , , , , ,	Physical Status	
GPS track or	activities (FDT		of Facilities &	
digitized	sampling, cylindrical		Structures)	
polyline/polygo	and flexural moldings		• Or any repairs/	
n and geotag	conducted)		improvement	
photos of	-Construction activities		conducted	
Commodity	(spreading,		conducted	
Locations and	compaction, pouring,			
production	etc.)			
production				
	-Geotagged photos			
	every 50 meters			
	interval of reported			
	_			
	progress -Cootagged photos of			
	-Geotagged photos of intermediate			
	structures (cross			
	drains, line canal, etc.)			
	-RAED shall submit the			
	above in digital format			
	to ABEMIS; Geotagged			
	photo shall be			
	attachment with			
	corresponding		remitted to produce the state of the state o	

Level of Implementation			
Proposed	Ongoing	Completed	Operations &
(Executed by the	(Executed by RAED and	Executed by	Maintenance
RAED during field	LGU engineers every	RAED and LGU	(Executed by
validation)	month based on SWA)	engineers and	RAED and LGU
	·	Joint	every Audit)
		Inspectorate	
		Team)	
	statement of work		
	accomplished (SWA)		

4. Recommended Geotagged Photos

- a. Geotagged photos of committed equipment "on-site"
 - i. Equipment

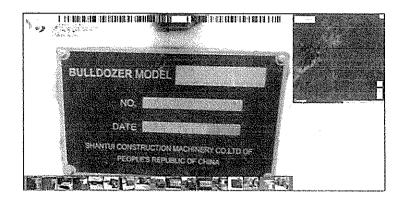
Full View

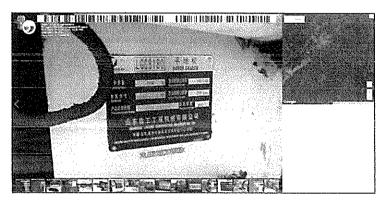






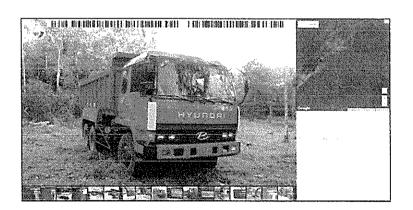
Close-up view on serial number

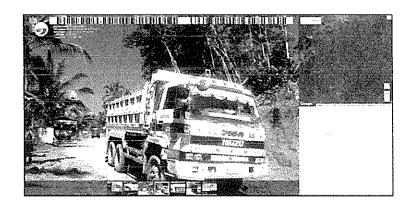




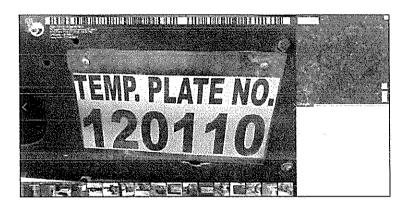
ii. Transport

Full View





Close-up view on Plate Number and/or Body/Chassis Number

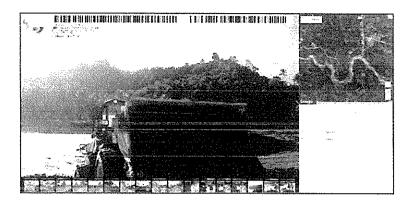


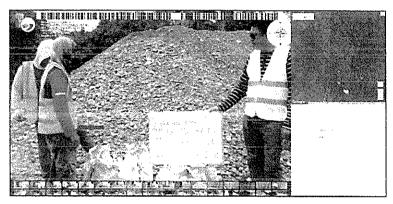


(a)

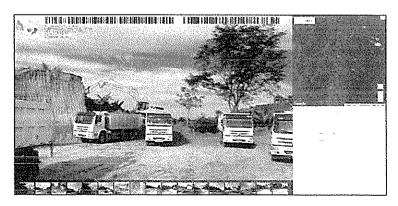
B. Progress Monitoring (Monthly)

a. Quarry Sites



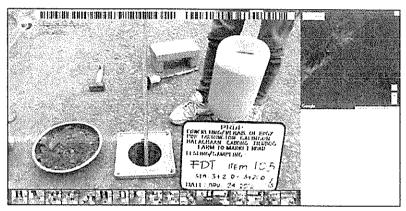


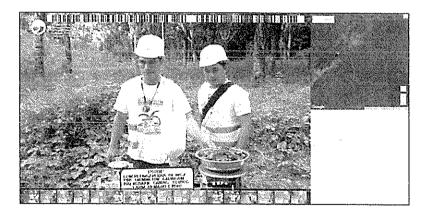


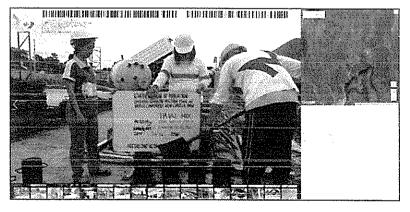


b. Quality testing activities

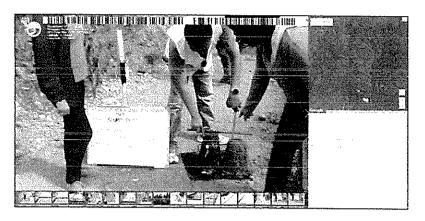


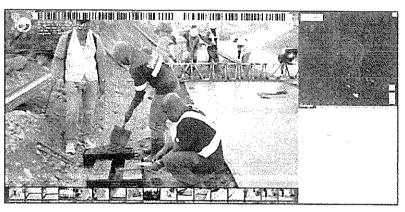




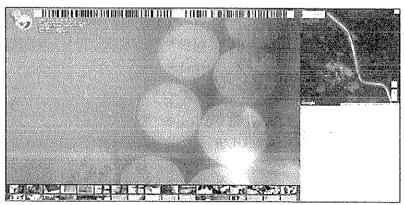


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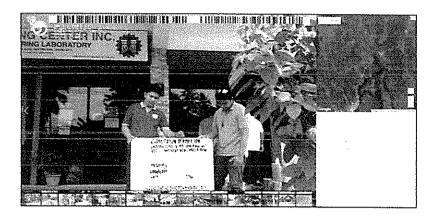






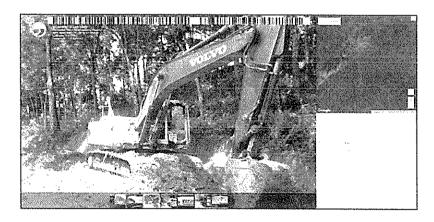


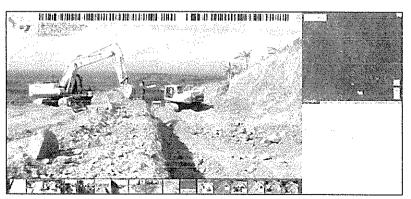
W





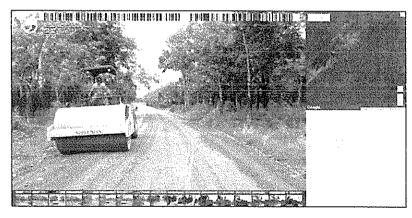
C. Construction activities

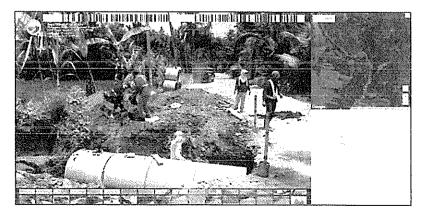


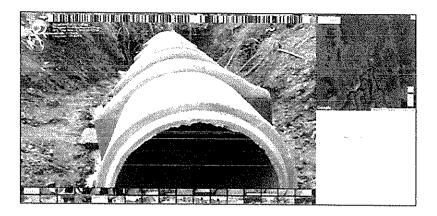


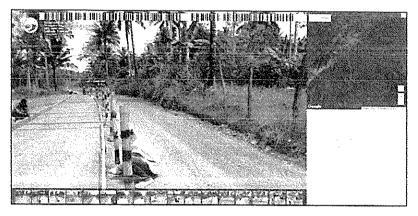


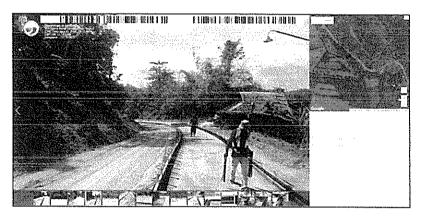


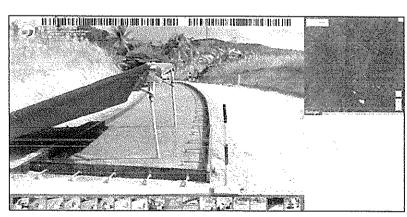


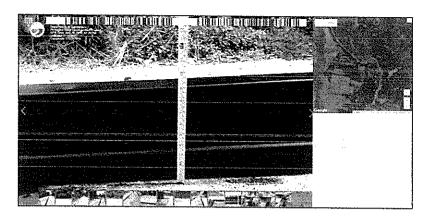


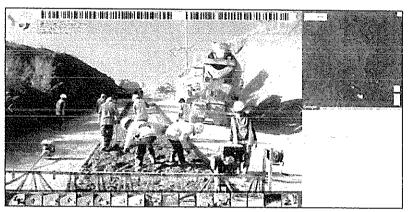


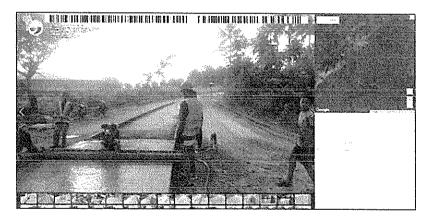


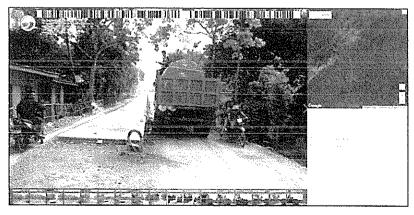


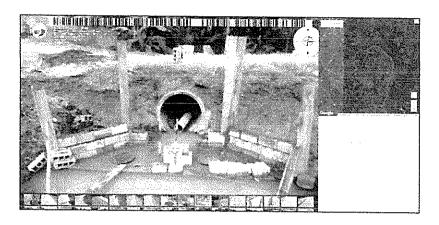


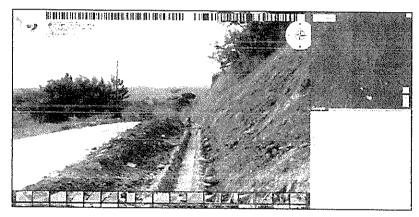




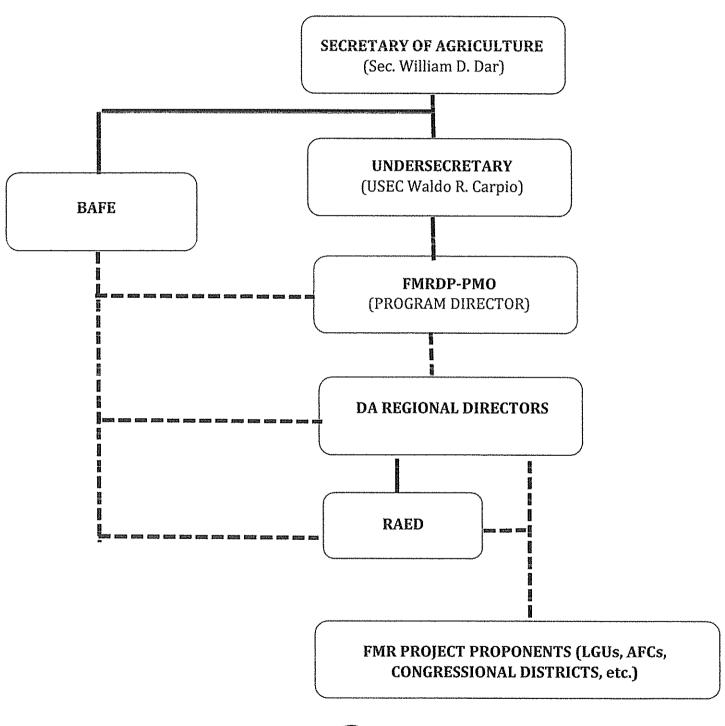








OPERATIONAL STRUCTURE DA FARM-TO-MARLET ROAD DEVELOPMENT PROGRAM



Cer 6. a/ 5/6/20