Table 4 Results of Initial Environmental Examination (1/17)

Code No.	Project/Program Title
EC-1	Small Irrigation Development Project

Location:
Davao del Sur: Surface water development: 16 sites, Groundwater development: 18 sites
Davao Oriental: Surface water development: 9 sites, Groundwater development : 28 sites
Davao Province: Surface water development: 22 sites, Groundwater development: 9 sites

Project/Program Description

Project Components

The project divided into two types based on water sources: surface water and ground water.

(1) Small Water Impounding Schemes for surface water development
Facilities: small impounding dam/reservoir, diversion canals, laterals, irrigation structures (check gates, turn outs, stilling basins, etc.)

Project Activities

Pre-Construction Phase
- employment of worker

Construction Phase
- Construction of dams/reservoir
- Construction of canals & structures
- Construction of access road

Operation and Maintenance Phase
- maintenance of channels

(2) Shallow Tube well Schemes for groundwater development
Facilities: water pump set including motor, farm ditches

Project Activities

Pre-Construction Phase
- Ground water characterization
- employment of worker

Construction Phase
- Well drilling
- Installation of water pumps

Operation and Maintenance
- Maintenance of pumps and wells
- Maintenance of ground water re-charge areas

Site Description

specific locations not identify

site for Small Water Impounding Schemes
Upland – cultivated areas

site for Shallow Tube well Schemes
Lowland – cultivated areas along coastal plains

Environmental Impact Evaluation

Pre-construction Phase
- employment opportunity will be increase

Construction Phase
- noise level will increase by operation of heavy equipment

Operation and Maintenance Phase
- operation of pumping will generate noise
- available groundwater will decrease by pumping
- available water resources will increase
- agriculture production and local economy may increase
- impact on river erosion is not clear

Environmental Recommendations
- In-take volume should be considered from view point of maintenance of river
- watershed should be maintained

Table 4 Results of Initial Environmental Examination (2/17)

Code No.	Project/Program Title
EC-14	Fisherfolks Livelihood Enhancement Program

Location:

Alternative Livelihood Enhancement Component
- Davao del Sur: Santa Maria, Don Marcelino, Jose Abad Santos
- Compostela Valley: Maco, Pantukan
- Davao Oriental: Lupon, San Isidoro, Gov. Generoso

Fisheries Skills Improvement Compone
- Davao del Sur: Malalag
- Compostela Valley: Mabini
- Davao del Norte: Panabo, Babak
- Davao Oriental: Mati

Project/Program Description

Project Components

Alternative Livelihood Development Component
- Implementation of alternative livelihood skills trainings

Fisheries Skills Improvement Component
- Establishment of five basic fish processing plants (each 1 mill. Pesos plant)
- Implementation of fish skills trainings

Project Activities

Pre-Construction Phase
- acquisition for fish processing plants

Construction Phase
- Provision of fishing gears
- plants construction of fish processing

Operation and Maintenance Phase
- Fisheries and alternative livelihood skills training activities
- Operation of fishing activities using installed fishing gears,
- Operation of fish processing plants

Site Description

These project areas are located in and near the existing municipal fishing grounds.

Topographic conditions: Coastal areas

Land use: Municipal fisheries areas (fishing, fish processing), arable areas near the coasts.

Others:
- Mati project site include a part of "The Pujada Bay Protected Landscape/Seascape area"
- These project areas not include CADC area.

Environmental Impact Evaluation

Pre-Construction Phase
- impact on land acquisition is not clear because project site is not idenfied.

Construction Phase
- construction of fish processing plans will generate noise, and air pollution by construction work

Operation and Maintenance Phase
- It is possible that development of fishing skill affect on fishery resources and coastal ecosystem
- generating waste from fish processing plants will cause water pollution
- fish processing plant generate waste contain high organic matters
- Income of fishermen, local economy will increase by increasing of fish production

Environmental Recommendations
- Project site should be excluded the existing fish sanctuary areas
- Waste water from fish processing plants should be treated.
- EIA for establishment of fish processing plants is required.

Table 4 Results of Initial Environmental Examination (3/17)

Code No.	Project/Program Title
EC-24	Integrated SMEs IE Development Program

Location:

Total projects sites are 19 sites.

Panabo	J. P. Laurel, Cagangohan, San pedro, portion ofSto. Nino, New Panda, and San Vincente	Mati	Dahican
		Baganga	Lambajon and Baculin
Nabunturan	Libasan, San Roque, Linda, and Magsaysay	Sta. Cruz	Dargon, Tuban and Tagabuli
Tagum	Madaum	Malalag	Bulacan (Malalag), Kiblagon (Sulop)

Project/Program Description

Project Components

1) To develop industrial estates (IE) to accommodate SMEs centering on them engaged in strategic sub-sectors such as confectionery, fruit processing, GTH/handicraft, pottery/ceramics, jewelry etc.;
2) To build "factory apartment" or standard factory for SMEs to minimize their initial cost;
3) To install common service facilities for basic processing, prototype fabrication, R&D including design and packaging, incubation, training, marketing, and meeting, if necessary; and

Size of Structures

- Site area: 1-5 ha per IE
- Standard factory/factory apartment: 3,000 m^2-5,000m^2

Project Activites

Pre-construction Phase
- Land acquisition
- employment of worker

• Construction Phase
- Land leveling
- Construction of infrastructure (water supply, power distribution lines, telecommunications lines, etc.) and others including access road.
- Construction of standard factory/factory apartment
- Transportation of construction materials

• Operation and Maintenance Phase
- Transportation of raw materials/products/workers
- Use of fuel depending on the sub-sector (confectionery, fruit processing, pottery/ceramics, jewelry)
- employment of worker

Site Description

Every Industrial Areas are those already identified by each PAIC.

Seven PAIC Industrial Areas above are the candidate sites for SMEs IE.

Panabo
Topography: flat
Land use: Agriculture
Planted crop: coconut, a few fruit

Tagum
Topography: flat
Land use: Agriculture (already under construction)
Planted crop: coconut, cacao, bamboo

Nabunturan
Topography: flat to slightly rolling terrain
Land use: Agriculture
Planted crop: coconut, banana, other fruit

Sta. Cruz
Topography: flat to rolling terrain
Land use: Agriculture
Planted crop: coconut, cacao, peanut, fruit

Malalag
Topography: flat to semi-rolling terrain
Land use: Agriculture
Planted crop: coconut, banana, other commercial tree

Mati
Topography: flat to rolling terrain
Land use: Agriculture
Planted crop: coconut

Baganga
Topography: flat to rolling terrain
Land use: Agriculture
Planted crop: coconut

Environmental Impact Evaluation

Pre-Construction Phase
- impact on land acquisition is not clear
- agriculture land will be lost
- employment opportunity will increase

Construction Phase
- air pollution and noise level will increase by operation of heavy equipment and travelling of construction vehicles

Operation & Maintenance Phase
- discharging of waste water will cause water pollution
- industrial waste will be generated
- water and energy will be consumed
- traffic volume will increase by transportation of materials, and it will increase air pollution and noise from traffic vehicles
- local economy and income of community will increase

Environmental Recommendations

- Environmental management plan for each site including pollution control and waste management should be formulated
- EIA for estates is required.

Table 4 Results of Initial Environmental Examination (4/17)

Code No.	Project/Program Title
SO-10	Common Service Laboratory Facilities Development Project

Location:
see site Description

Project/Program Description

Project Components

1) Tool and Die and Machine Fabrication Laboratory
(University of Southeastern Philippines, Obrero, Davao City)
A two-story huge building that will house machines for metal fabrication and other high-tech instruments.

2) Fishery and Marine Science Laboratory
(Davao del Norte State College, Island Garden City of Samal Campus)
The facility will have a two-story laboratory building for in-door laboratory activities. Structures to be built outdoor will be concrete aquariums, tanks, etc. for experiments. Outdoor laboratory activities will take place on a ship/vessel.

3) Geological Sciences Laboratory
(Davao Oriental State College of Science and Technology. Mati, Davao Oriental)
A two-story structure for a laboratory.

4) Physical Sciences and Biotechnology Laboratory
(Ateneo de Davao University, Poblacion, Davao City)
Works will essentially be the renovation of an existing building.

5) SOLAS and Simulated-Based Laboratory
(Holy Cross of Davao College, Island Garden City of Samal)
One or two buildings to house facilities.

Project Activities

Construction Phase
- demolition of existing structure
- construction of building and facilities
- transportation of construction waste and materials

Operation & Maintenance Phase
- operation of laboratories

Site Description

1) Tool and Die and Machine Fabrication Laboratory
The project site is a 6.6 hectare university campus situated in the heart of Davao City. The University is in a residential cum commercial area. Davao Gulf is about 2 kilometers away.

2) Fishery and Marine Science Laboratory
The project site is a 13-hectare site along the coast of Adecor, Kaputian, west of Samal Island and very close to Pearl Farm resort. Less than 2 hectares is dry land and the rest of the site is in the water. Adecor is a fhserman's village fronting at least 3 privately owned islets. The whole island is intended to be a recreational area.

3) Geological Sciences Laboratory
The site is about 5 kilometers north of Mati poblacion inside a 10-hectare college campus situated about 300 meters from the shore of Pujada Bay, which is a protected area under the NIPAS.

4) Physical Sciences and Biotechnology Laboratory
The project site is inside the 6-or-so hectare campus of the university right in the heart of Davao City Poblacion. ADDU is in the middle of a commercial area.

5) SOLAS and Simulated-Based Laboratory
The project site is a 6-hectare land situated along the shore of Davao Gulf in Camudmud, Babac, Island Garden City of Samal.

Environmental Impact Evaluation

Pre-Construction Phase
negative impact is not identified.

Construction Phase
- air pollution and noise level will increase by operation of heavy equipment and travelling of construction vehicles
- construction waste will be generated by demolition work

Operation & Maintenance Phase
negative impact is not identified

Environmental Recommendations

- Location of Geological Science Laboratory should be considered because project site is located in NIPAS Protected Area.

Table 4 Results of Initial Environmental Examination (5/17)

Code No.	Project/Program Title
SO-21	Health Care Delivery System Improvement Project

Location:
Montevista Dist. Hospital locates in Montevista, Compostela Valley Province
(Case study for IEE)

Project/Program Description
Project Component
Improvement of hospital building, facilities and equipment and optimize the use of resources through networking of hospital services.

Project Actives
Pre-construction Phase
- employment of worker

Construction Phase
- transportation of construction equipment and materials
- demolition of old hospital building
- construction of new building.
- operation of heavy equipment

O & M Phase
- provision of health services

Site Description
Land use:
Urban area

Environmental Impact Evaluation
Pre-construction Phase
- negative impact is not identified.

Construction Phase
- construction waste will generate by demolition work
- it is not clear that construction waste includes toxic substance
- air pollution and noise level will increase in hospital by operation of heavy and travelling of construction vehicles
- transportation will be obstructed by construction vehicles in urban area

Operation and Maintenance Phase
- health services will increase
- disease will decrease

Environmental Recommendations
- Construction method and schedule should be considered due to hospital
- Incinerator for medical waste should be set up.

Table 4 Results of Initial Environmental Examination (6/17)

Code No.	Project/Program Title
EN-10a	Integrated Watsershed Management Program Tagum-Libuganon Multi-Purpose Water Resources Development Project

Location:
New Collera and a part of Tagum and Asuncion in Davao del Norte Province.

Project/Program Description

Project Components
- Dikes (24.7 km in total length),
- Stormwater drainage (open channels, culverts, etc),
- Dam and reservoir,
- Irrigation facilities, and
- Hydro-power generation facilities.

Project activities

Pre-construction phase
- land acquisition (the right-of-way for drainage channel),
- submersion of inundated areas
- relocation of residents in the submerged area, if necessary.

Construction phase
- site preparation,
- construction of stockyard, temporal road, etc.
- construction of dams and other facilities
- transportation of heavy vehicles and construction materials

Operation and maintenance
- management activities of watershed, and
- supply of irrigation water and electricity, and
- clean up and repair works of drainage course.

Site Description

The Project Area (35,000 ha) is located in the down stream of the Saug River and extended between the left bank of the Tagum-Libuganon River and the National Highway.

Topographic conditions:
roughly plain land and endowed with huge potential irrigable land

Land use:
agricultural land
dams and reservoirs are located in forest lands.
Some urban centers such as Tagum, New Collera and Asuncion are scattered in the Project Area.

Environmental Impact Evaluation

Pre-Construction Phase
- impact on land acquisition is not clear.
- employment opportunity will increase
- forest will be changed to inundated area and reservoir area
- impact on disappearance of forest land is not clear

Construction Phase
- air pollution and noise level will increase by operation of heavy equipment and travelling of construction vehicles
- surface soil may be lost by cut and fill work during rainy season

Operation & Maintenance Phase
- impact of surface water and ground water is not clear
- available water and agriculture production will be increase
- volume of waste from channels will increase
- natural landscape will be changed because of existence of new dams and reservoir
-income of community will increase because of high agriculture production

Environmental Recommendations
-Method of dam construction works should be carefully selected especially environment hindrance such as the generation of mad water, and
- EIA is required.

Table 4 Results of Initial Environmental Examination (7/17)

Code No.	Project/Program Title
EN-10b	**Integrated Watershed Management Program** Upper Agusan Flood Control and Drainage Improvement Project

Location:
Monkayo, Montevista, Compostela, Nabuturan and New Bataan in Compostela Valley

Project/Program Description

Project Component
- Cut-off channel (3,700 m in total length) and related works around Kalaw Bridge,
- Dike construction and channel improvement works (71 km in total length),
- Stormwater Drainage improvement in urban centers
- Construction of sabo dam (two places) and small impounding dams (three places).

Project activities

Pre-construction phase
- Land acquisition (the right-of-way for drainage channel)
- employment of worker

Construction phase
- Site preparation,
- Construction of stock yard, temporal road, etc.
- Construction of dams and other facilities
- Transportation of heavy vehicles and construction materials
- Submersion of inundated areas

Operation and maintenance
- Management activities of watershed, and
- Clean up and repair works of drainage course

Site Description

The Project Area (160,000 ha) is located along the Upper Agusan River. The Upper Agusan Basin has been developed as a major supply source of food in the region like rice, coconut, banana, etc.

The project area with an estimated maximum flood-prone area of some 20,000 ha has been seriously affected by habitual and serious flood every year.

Topographic conditions:
roughly plain land

Land use:
- Several urban centers such as Monkayo, Montevista, Compostela, Nabuturan and New Bataan are scattered in the Project Area
- major portion of the land area are typically occupied by agricultural land
- sabo dams and small impounding dams are located in forest lands.

Environmental Impact Evaluation

Pre-Construction Phase
- impact on land acquisition is not clear.
- employment opportunity will increase
- forest will be lost in inundated area

Construction Phase
- stream of river water will be obstructed and polluted by sedimentation
- soil will be lost during heavy rain
- air pollution especially dust will increase by operation of heavy equipment and travelling of construction vehicles
- traffic will be obstructed by construction vehicles

local economy will increase by employment of worker and other activities

Operation & Maintenance Phase
- community and individual properties can be protected against flooding
- local economy will increase by decreasing of flooding drainage waste will be generated
- transportation will be obstructed by existence of new drainage channels
- impact on surface water and ground water is not clear

Environmental Recommendations
- Construction method and period should be considered especially rainy season.
- EIA will be required.

Table 4 Results of Initial Environmental Examination (8/17)

Code No.	Project/Program Title
EN-15	Davao City Integrated Waste Management System Development

Location:
Davao City

Project/Program Description

Project Components

- establishment of waste container in high densely populated areas
- introduction of compactor car and mini-dump track for urban area
- establishment of transfer station
- introduction of source separation for recycling
- promotion of compost
- construction of sanitary landfill

Project Activities

Pre-construction Phase
- land acquisition
- employment of worker

Construction Phase
- land leveling
- cut and fill work
- transportation of construction material
- operation of heavy equipment

Operation and Maintenance Phase
- transpiration of solid waste by collection vehicles
- disposal of solid waste
- coverage with soil
- operation of transfer station

Site Description

Project site is not fixed.

Environmental Impact Evaluation

Pre-Construction Phase
- impact of land acquisition is not clear, because project site is not identified.
- employment opportunity will increase

Construction Phase
- air pollution and noise level will increase by operation of heavy equipment and travelling of construction vehicles
- soil will be lost during heavy rain

Operation and Maintenance Phase
- living environment can be improved
- impact on water resources and agriculture by leachate is not clear
- traffic volume will be increase because increasing and travelling of collection vehicles on access road
- odor will be generated from transfer station and disposal site

Environmental Recommendations
- location of project site should be considered land use natural environment and natural resources.
- EIA is required.

Table 4 Results of Initial Environmental Examination (9/17)

Code No.	Project/Program Title
IN-1	Inter-Regional Roads Upgrading Project

Location:
Davao city - Tagum - Agusan road (98.56 km)
Davao City - Digo - G. Santos City road, on-going project (22.76 km)
Davao City - Bukidnon road, on-going project (92.39 km)
Digos - North Cotabato, on-going project (25.33 km)

Project/Program Description

Project Component
Improvement of existing roads
- pavement with concrete
- widening

Project Activities
Pre-construction Phase
- land acquisition not required
- replacement of utility poles

Construction Phase
- transportation of construction materials
- operation of heavy equipment
- cut and fill works
- road widening and bridge construction
- pavement work
- construction site to be closed temporary

Operation and Maintenance Phase
- road maintenance work

Site Description

Davao city - Tagum - Agusan road
Flat to rolling plain
Cultivated area, built-up area etc.

Davao City - Digo - G. Santos City road, on-going project
Flat to mountainous plain
Cultivated area, built-up area etc

Davao City - Bukidnon road, on-going project
Undulating to rolling plain
Cultivated area, built-up area etc.

Digos - North Cotabato, on-going project
Flat to hilly plain
Cultivated area, built-up area etc.

Environmental Impact Evaluation

Pre-construction Phase
- electric services will be obstructed during temporary replacement of utility poles
- employment opportunity will increase

Construction Phase
- air pollution and noise level will increase by operation of heavy equipment and travelling of construction vehicles
- traffic will be obstructed by constriction work

Operation and Maintenance Phase
- traffic capacity will increase
- local economy may increase
- air pollution and noise will increase by increasing of traffic volume

Environmental Recommendations
- construction period should be considered at day time
- EIA is required.

Table 4 Results of Initial Environmental Examination (10/17)

Code No.	Project/Program Title
IN-5a	Special Purpose Roads Improvement Project Nabunturan - Mainit Park Road Widening

Location:
Mainit Park, Compostela Valley

Project/Program Description

Project Component
Road widening for Mainit Protected Area
Length: 16.31 km

Project Activities
Pre-construction Phase
- land acquisition
- replacement of utility poles

Construction Phase
- transportation of construction materials
- operation of heavy equipment
- demolition of existing road
- cut and fill works
- road widening and bridge construction
- pavement work
- construction site to be closed temporary

Operation and Maintenance Phase
- road maintenance work

Site Description
Part of section is located in Mainit Landscape Protected Area under NIPAS.

Topographic Conditions:
Flat to rolling plain

Land Use:
cultivated area and shrub land

Environmental Impact Evaluation

Pre-construction Phase
- electric services will be obstructed during temporary replacement of utility poles
- employment opportunity will increase
- cultivated land may decrease for land acquisition

Construction Phase
- air pollution and noise level will increase by operation of heavy equipment and travelling of construction vehicles
- traffic will be obstructed by constriction work
- travelling of visitors for Mainit Protected Area will be obstructed by construction work

Operation and Maintenance Phase
- noise and air pollution will increase because of increasing of traffic
- number of visitor will increase for Mainit Protected Area

Environmental Recommendations
- The upland section should have soil erosion measure.
- Construction method and period should be considered
- EIA is required.

Table 4 Results of Initial Environmental Examination (11/17)

Code No.	Project/Program Title
IN-5b	Special Purpose Roads Improvement Project Toril - Bayabas - Eden Road Pavement

Location:
Toril - Bayagas - Eden eco-tourism center, Davao City

Project/Program Description
Project Component
Road pavement
Length: 10.17 km

Project Activities
Pre-construction Phase
- no land acquisition required
- replacement of utility poles

Construction Phase
- transportation of construction materials
- operation of heavy equipment
- cut and fill works
- pavement work
- construction of bridge
- construction site to be closed temporary

Operation and Maintenance Phase
- road maintenance work

Site Description
Topographic conditions:
Flat to rolling plain

Land Use:
cultivated area and built-up area

Environmental Impact Evaluation
Pre-construction Phase
- electric services will be obstructed during temporary replacement of utility poles
- employment opportunity will increase

Construction Phase
- soil may be eroded during rainy season
- river is sedimented by soil erosion during rainy season
- natural landscape will be changed
- accessibility for mountain resort will be obstructed temporary by construction work
- air pollution and noise will increase, but not serious

Operation and Maintenance Phase
- traffic volume will increase, however, accessibility for mountain resort will be improved
- air pollution and noise level may decrease because smoothly travelling

Environmental Recommendations
- The upland section should have slope protection to avoid land slides
- Construction period should be considered especially rainy season
- EIA is required.

Table 4 Results of Initial Environmental Examination (12/17)

Code No.	Project/Program Title
IN-5c	Special Purpose Roads Improvement Project Mt. Apo National Park Road Pavement

Location:
Mt. Apo National Park, Davao del Sur

Project/Program Description
Project Component
Road pavement
Length: 20.46 km

Project Activities
Pre-construction Phase
- no land acquisition required
- replacement of utility poles

Construction Phase
- transportation of construction materials
- operation of heavy equipment
- cut and fill works
- pavement work
- bridge construction
- construction site to be closed temporary

Operation and Maintenance Phase
- road maintenance work

Site Description
Section of road is located in Mt. Apo Natural Park under NIPAS.

Topographic conditions:
Flat to rolling plain

Land Use:
cultivated area and forest area

Environmental Impact Evaluation
Pre-construction Phase
- electric services will be obstructed during temporary replacement of utility poles
- employment opportunity will increase

Construction Phase
- air pollution and noise level will increase by operation of heavy equipment and travelling of construction vehicles
- traffic will be obstructed by constriction work
- travelling of visitors for Mt. Apo Natural Park will be obstructed by construction work

Operation and Maintenance Phase
- Noise and air pollution will increase because of increasing of traffic
- number of visitor will increase for Mainit Protected Area

Environmental Recommendations
- The upland section should have soil erosion measure.
- Construction method and period should be considered
- EIA is required.

Table 4 Results of Initial Environmental Examination (13/17)

Code No.	Project/Program Title
IN-5d	Special Purpose Roads Improvement Project Babak - Penaplata - Kaputinan Road Improvement

Location:
Garden City of Samal, Davao del Norte

Project/Program Description
Project Component
Road improvement
Length: 40.0 km

Project Activities
Pre-construction Phase
- no land acquisition required

Construction Phase
- transportation of construction materials
- operation of heavy equipment
- cut and fill works
- bridge construction
- pavement work
- construction site to be closed temporary

Operation and Maintenance Phase
- road maintenance work

Site Description
Topographic conditions:
Flat to undulating plain, partially rolling

Land Use:
cultivated area and forest area

Environmental Impact Evaluation
Pre-construction Phase
- employment opportunity will increase

Construction Phase
- soil may be eroded during rainy season
- river is sedimented by soil erosion during rainy season
- natural landscape will be changed
- accessibility for mountain resort will be obstructed temporary by construction work
- air pollution and noise will increase, but not serious

Operation and Maintenance Phase
- traffic volume will increase, however, accessibility for mountain resort will be improved
- air pollution and noise level may decrease because smoothly travelling

Environmental Recommendations
- The upland section should have slope protection to avoid land slides
- Construction period should be considered especially rainy season
- EIA is required.

Table 4 Results of Initial Environmental Examination (14/17)

Code No.	Project/Program Title
IN-15	Rural Electrification and Renewal Energy Development

Location:
Sarangani Island

Project/Program Description
Project Components
1) To power generation by use of solar
2)To install solar powered refrigerator in a hospital for vaccine; and
3) To establish a research and application center of renewable energy;

Size of Structures
Solar site area: minimal-1,000m^2

Project Activities
Pre-Construction Phase
- Land acquisition

Construction Phase
- Installation of solar and other power generation systems
- Construction of recharging station
- Transportation of construction materials

Operation and Maintenance Phase
- Recharging battery

Site Description
Project site is not fixed.

Topographic conditions:
terrain is flat to rolling.

Environmental Impact Evaluation
Pre-Construction Phase
- impact on land acquisition is not clear because not fixed

Construction Phase
It is not clear which categories of land will be constructed.

Operation and Maintenance Phase
negative impact is not identified.

Environmental Recommendations
- Location of project site should be considered from view point of social environment and natural environment.

Table 4 Results of Initial Environmental Examination (15/17)

Code No.	Project/Program Title
IN-18	SWIM Expansion Project

Location:
Small river basin especially in Davao del Sur, Davao Oriental, Davao del Norte

Project/Program Description

Project Components
- Dam and reservoir (not more than 30 m high, storage volume not exceed 50 MCM)
- Irrigation facilities,
- Domestic water supply,
- Hydro-power generation facilities,
- Watershed management, and
- Others (inland fisher facilities and recreation facilities)

Project Activities

Pre-construction phase
- Land acquisition (dam site, inundation areas, etc.)
- employment of worker

Construction phase
- Site preparation
- Construction works of stock yard, temporal road, etc.
- Site works of dams and other facilities
- Transportation of heavy vehicles and construction materials
- Submersion of inundated areas

Operation and maintenance
- Management activities of watershed
- Supply of irrigation water, living water and electricity

Site Description

A certain portions of the project areas may be encompassed by the protected areas or the CADC area.

Topographic conditions:
The Project Areas are of peninsular, mountainous or rolling topography with relative small-scale watershed.

Land use:
The major portion of the land area are typically occupied by agricultural land with small villages, while dams and reservoirs are located in forest lands.

Environmental Impact Evaluation

Pre-Construction Phase
- impact on forest, wildlife is not clear because project site is not fixed
- impact on land acquisition is not clear.
- employment opportunity will increase

Construction Phase
- surface water and ecosystem will be deteriorated by soil erosion during heavy rain
- air pollution and noise level will increase by operation of heavy equipment and travelling of construction vehicles
- natural landscape will change

Operation & Maintenance Phase
- Impact on surface water, wildlife and aquatic environment is not clear
- agricultural production and water resources will increase, so that income of community and local economy will increase

Environmental Recommendations
- Construction method and period should be considered
- EIA is required.

Table 4 Results of Initial Environmental Examination (16/17)

Code No.	Project/Program Title
IN-27a	PAIC Support Infrastructure Program PAIC Related Port Development

Location:
(1) Malalag, Davao del Sur
(2) Sta Cruz, Davao del Sur
(3) Mati , Davao Oriental
(4) Baganga, Davao Oriental
(5) Maco, Compostela Valley

Project/Program Description
Project Components
Port improvement/new construction
(1) Improvement of existing municipal port
(2) New construction
(3) Improvement of existing PPA terminal port
(4) Improvement of private wharf
number is the same as number of project site

Facilities/Equipment
- wharf
- cargo handling equipment and the yard
- communication facilities

Project Activities (for new construction)
Pre-construction Phase
- Land acquisition

Construction Phase
- cut and fill works
- wharf construction
- operation of heavy equipment
- transportation of construction materials
- access road

Operation and Maintenance Phase
- operation/maintenance work

Site Description
Topographic conditions:
All project sites are categorized as flat plain.

Land Use:
Built-up area

Environmental Impact Evaluation
Pre-construction Phase
- resettlement and change in community populations are not clear

Construction Phase
- sea water will be polluted by construction work
- generation of turbid water affects on coastal ecosystem
- air pollution and noise level will increase

Operation and Maintenance Phase
- change in current pattern by the new structures is not clear
- coastal environment is deteriorated by discharging waste water

Environmental Recommendations
Countermeasure for turbid water will be taken.
Water treatment facilities should be established.
EIA is required.

Table 4 Result of Initial Environmental Examination (17/17)

Code No.	Project/Program Title
EC22	BIMP-EAGA Construction Materials Merchandising Center Project

Location:
Ilan close to Sasa Whalf in Davao City
Maco in Compostela Valley
Mati in Davao Oriental

Project/Program Description	Site Description
Project Component Development of a merchandising center to accommodate producers, traders, and processors of construction materials such as stone, pebbles, sand, gravel, marble, steel, concrete products, wood/lumber, bamboo etc. some of which may be imported from outside the DIDP Area; **Size of Structures** Site area: 10-30 ha **Project Activities** Pre-construction Phase - Land acquisition - employment of worker Construction Phase - Land leveling - Construction of infrastructure (water supply, power distribution lines, telecommunications lines, etc.) and others including access road. - Construction of open-warehouse/management office building - Transportation of construction materials Operation and Maintenance Phase - Transportation of construction materials for selling /visitors /workers - Use of heavy equipment - Emission of wastes (steel, concrete products, wood/lumber, bamboo) - Transportation of construction materials for selling	Project site is not fixed. Flat land will be selected for the sites, all of which are close to the ports or waterfront.

Environmental Impact Evaluation

Pre-Construction Phase
- impact on land acquisition is not clear.
- employment opportunity will increase

Construction Phase
- air pollution and noise level will increase by construction work

Operation and Maintenance Phase
- air pollution and noise level will increase by transportation of construction materials for selling
- natural resources will decrease, and natural environment will be deteriorated by exploitation of construction materials
- coastal water will be polluted by leak of oil from vessels for transportation of construction materials

Environmental Recommendations
- Exploitation work of construction materials should be considered from deterioration of environment and sustainable use of natural resources
- Fencing and watering at the Center is required.
- Wastes treatment by locators, or reuse is required.
- EIA for the construction of the Center and exploitation of construction materials are required.

Part 3
Project Profiles

Project No. SP-1

1.	PROJECT TITLE	:	Integrated Community Development
2.	LOCATION	:	Selected communities in the DIDP Area
3.	IMPLEMENTING AGENCIES	:	NGO/POs in cooperation with LGUs, supported by government agencies
4.	OBJECTIVES	:	(1) To increase and stabilize income of rural communities through the establishment of appropriate and sustainable agricultural technology; and (2) To strengthen social infrastructure through people organizing and participation in all phases of community development.
5.	EXPECTED EFFECTS	:	Self-reliant rural communities based on sustainable use and management of resources
6.	PROJECT COSTS	:	₱ 100 million for initial implementation in 15-20 communities
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 : 15 – 20 communities Phase 2 : Replication in more communities
8.	PROJECT DESCRIPTION	:	

Despite the dominance in population, farmers tend to receive low priority in resource allocation as they are not organized to have a collective voice to influence policy decisions. People empowerment means enabling local communities to gain a counterveiling force that will ensure their collective voice be listened and their aspirations reflected in every decision that affects their lives and welfare. An essential condition is that their livelihood be re-established through democratizing ownership and control of economic resources.

The project has several common components: (1) baseline survey, (2) area development planning, (3) organizational strengthening, (4) capability building, (5) accessible and affordable credit, (6) socioeconomic/enterprise projects, and (7) support infrastructure. Socioeconomic/enterprise projects may include cattle fattening, glazed earthware making, organic fertilizer production, vegetable gardening, fruit trees, cutflowers and ornamental plants and others, depending on target communities. The government agencies shall support different projects depending on specific technology required for socioeconomic/enterprise projects (e.g. SALT, organic fertilizer) and target communities (e.g. IPs, ARCs), such as DA, DOST, DAR, DTI and DENR.

Project No. SP-2

1.	PROJECT TITLE	:	IP's Early Childhood Development
2.	LOCATION	:	All barangays with dominant IP populations
3.	IMPLEMENTING AGENCIES	:	NGO/POs in cooperation with LGUs, DSWD and DECS
4.	OBJECTIVES	:	(1) To provide eligible IP children with basic child survival services, including immunization, early diagnosis and treatment of common childhood diseases, and nutrition; (2) To improve quality and expand coverage of early education and psychosocial development services for IP children three to five years old; and (3) To improve capacity of LGUs to promote, plan, integrate, finance, deliver and monitor early childhood development services.
5.	EXPECTED EFFECTS	:	Reduced IP infant and child mortality and pre-school malnutrition. Improved communications between IP communities and LGUs.
6.	PROJECT COSTS	:	₱ 200 million
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 – Phase 2
8.	PROJECT DESCRIPTION	:	

The project seeks to deliver early childhood development (ECD) services in health, nutrition, and early education to the Indigenous Peoples in the DIDP Area. In doing so, the ECD program will build on existing interventions while two-pronged changes shall be pursued specifically on (a) institutional process and structure to ensure that existing services are integrated, and (b) policy development, additional staff, supervision, and training to ensure manageable workloads and good quality services, and technical and supervisory support.

The project will be implemented with the following components.

(1) Participatory action research on IP communities

This is to be conducted by value-driven NGOs with IPs who are demographically predominant in a given municipality, who have limited access to ECD packages due to geographical and environmental constraints, and where there is a relatively strong IP organization. It will identify distinctive features of the indigenous child development knowledge. These features will form the bases for re-orienting existing ECD packages to suit local ECD needs. The purpose is to ensure a workable interface of indigenous ECD practices and ECD packages. It will also serve as basis for developing training modules for LGU officials and paid local workers (e.g., BHWs, BNS, day care workers) and barangay-based actors (local healers, mothers, leaders).

(2) Training Program

Training activities will be guided by the following principles:

- respect for culture and local capabilities,
- departure from a patron-client relationship between government and IP communities by promoting partnership and egalitarianism,

- recognition of the pitfalls of ethnocentrism (IPs as uncivilized, primitives, pagans) which reinforce cultural domination by the mainstream society,
- strengthening of local capabilities, and
- observance of consensus-building.

Participants include LGU officials, local IPs, including *hilots,* local leaders, and caregivers.

The program covers:

- technical skills to attend to biological/survival imperatives (immunization, disease control, nutrition),
- indigenous early child development knowledge and practices (with emphasis on maternal and child care and local modes of teaching and learning), and
- planning, implementation, monitoring and evaluation, drawing on local practices and social organization (family and kinship) and NGO and PO, maximizing local participation through participatory monitoring schemes.

Resource persons consist of IPs, anthropologists, NGOs, and government representatives.

(3) Funding

Additional funding support shall be provided from the state and other local and international agencies to LGUs, NGOs/POs for the following:

- infrastructure (locally inspired day care centers or alternative, not center-based),
- supplies (teaching materials and facilities),
- IP counterpart in the form of labor and available materials (building materials such as bamboo, cogon, etc.),
- ECD workers, and
- other unanticipated logistical requirements.

(4) Reorientation and reorganization of existing LGU-initiated ECD structure and services

This component consists of the following:

Health/nutrition/education programs and services with:

- sensitivity to local practice of minding with the body – issue of invasion of privacy and modesty (e.g., prenatal and postnatal examination),
- adjustment in the routine schedule (usual clinic hours) to suit local routines of everyday life, and
- priority to IPs in the staff recruitment,

Culturally appropriate, locally developed and tested information, education, and campaign (IEC) materials (using appropriate communication strategies and drawing on popular knowledge and practices), and

Representation of IPs in LGU ECD planning committees.

(5) Consultative meetings

Under the framework of Ancestral Domain Management Plans (ADMP), DSWD (lead government agency) and LGUs, with the help of NGOs, should initiate consultative meetings with organized IP to generate deeper understandings of the ECD needs of the IP, and to create and develop structures and mechanisms to ensure IPs' access to and participation in ECD programs and services.

Project No. SP-3

1.	PROJECT TITLE	:	Integrated Health Insurance cum Credit Program
2.	LOCATION	:	Urban barangays in the DIDP Area
3.	IMPLEMENTING AGENCIES	:	NGOs in cooperation with LGUs
4.	OBJECTIVES	:	(1) To introduce an experimental system of health care to the urban poor integrated with community credit programs; and (2) To establish a link between community health care schemes and the Philippine Health Insurance Corporation (PHIC).
5.	EXPECTED EFFECTS	:	At least 55,000 people in DIDP urban centers having improved access to health care at all levels
6.	PROJECT COSTS	:	₱ 60 million
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 – Phase 2
8.	PROJECT DESCRIPTION	:	

In 1995, the National Health Insurance Law was passed with the goal of increasing access of all Filipinos to all levels of essential health care. To implement this law, the Philippine Health Insurance Corporation (PHIC) was set up. At the moment, PHIC is in a transition stage where it is firming up its operational mechanisms.

There are a number of models of health care financing in the Philippines. There are those that are managed by HMOs (health management organizations). There are those which are hospital-based where membership entitles one to services provided by the network of hospitals attached to these facilities. There are also community-based schemes where community members pay for the improved services provided by the barangay health stations and the barangay health workers. Other schemes that link community health care financing schemes with the services provided by government-owned hospitals also exist.

The project will build a model for linking the community managed credit programs with community health care financing schemes. The project will also seek to link these community-based programs with the higher levels of health care providers (clinics and hospitals). In addition, the project will explore ways of linking these community-based schemes with that being implemented by PHIC or private health insurance schemes that are compatible with the needs of the urban communities.

The project will be implemented in two phases. Phase I will focus on design and pre-testing of the system in five urban barangays within the DIDP Area. Phase 2 will start in Year 3. This will start with a review of strategies tested in Phase I through a series of dialogues/writeshops between and among community members, health workers, development workers and systems design team members. This will result in a revised design that will be implemented in the 50 barangays under Phase II. These Phase II barangays will be selected from among the highly populated areas to ensure that a substantial number of families will be covered within the DIDP Area.

Annual assemblies will ensure that the experience is constantly reviewed and refined with the participation of the various stakeholders.

Project No. SP-4

1.	PROJECT TITLE	:	Women and Development
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	NGOs in cooperation with LGUs
4.	OBJECTIVES	:	(1) To enhance women's capabilities and social status through advocacy and trainings; and (2) To expand opportunities for women to take part in socioeconomic activities.
5.	EXPECTED EFFECTS	:	Women as indispensable actors to support the DIDP Area development and their recognition as such.
6.	PROJECT COSTS	:	₱ 20 million
7.	IMPLEMENTATION SCHEDULE	:	Phase 1
8.	PROJECT DESCRIPTION	:	

The project has several components, which shall be implemented in an integrated manner.

(1) Enactment of Local Ordinance – The Women and Development Code

It is the intention of the project to encourage all LGUs in the DIDP Area to come up with a local version of RA 7192 otherwise known as Women in Development and Nation Building Act, signed into law on December 11, 1991. So far, only Davao City was able to codify the law with the passage of City Ordinance No. 5004 otherwise known as the Women Development Code of Davao City.

(2) Economic component

Various NGOs and POs providing services relative to the women's economic empowerment will come together to devise a unified program principally aimed at enhancing women's economic opportunities and provide equal access to productive resources. One project that will be implemented is entitled: "Empowering Women Through Appropriate and Environment-Friendly Technologies".

The project seeks to increase the capacity of women and men to produce and earn income using gender fair and environment-friendly technologies to build the resource base to become sustainable. Inherent to this project are: training on gender and sustainable agriculture; gender-fair participatory technology development; agricultural resource assistance; and setting up of community-based women enterprises to augment income of the families.

In particular, the project shall be implemented utilizing the following sub-components.

Social support building

- Women organizing
- Community support mobilization

Capability building

- Gender sensitivity training
- Seminars on women issues and concerns
- Women and sustainable agriculture (soil fertility management, ecological pest management, agro-forestry, poultry and livestock management, MASIPAG rice technology, aquaculture)
- Women and environment

Gender-fair participatory technology development

- Study tour to ecological farms
- Trial farm development (lowland and upland areas)
- Nursery development

Agricultural resources assistance

- Provision of appropriate farming tools and equipments
- Water system development
- Animal dispersal
- Seeds/seedling dispersal
- Production of sustainable agriculture materials

Community-based women enterprises

- Handmade paper production
- Handicrafts maximizing the indigenous materials
- Marketing of agricultural products

(3) Policy studies and lobby

Improving the situation of women in agriculture

1) To use the result of the study as guide to help agricultural planners and policy formulators identify relevant information as inputs to policy changes vis-à-vis agricultural training and development, all aimed at improving the situation of the women;

2) To conduct a series of capability-building and leadership trainings to NGOs, POs, and GOs focusing in the promotion of gender equity, advancement of current gender initiatives, and providing them the necessary skills and knowledge for integrating gender and development considerations in their respective programs, projects and activities;

3) To assist women leaders of communities, NGOs and POs, programs managers, planners and policy formulators involved in decision-making process which affect their opportunities and the quality of life of the women in agriculture;

4) To distinguish the different productive and reproductive roles and responsibilities of men and women in the household in order to fully understand how gender influences access and control over resources and labor, and help define the concept of women in development; and

5) To ensure that women leaders representing NGOs, POs and GOs, program managers, planners and policy formulators fully recognize and support women's role, concerns and contributions to society.

Women's health and development study

The study seeks to explore the dimensions, health consequences and risk factors of violence. Specifically, the study aims to:

- Obtain reliable estimates of the prevalence of family violence against women in urban and rural areas within the DIDP Area,
- Document the health consequences of family violence against women,
- Identify and compare risk and protective factors for violence within families, within and between settings, and
- Explore and compare the coping strategies used by women experiencing violence from family members.

Policy proposal on community response to domestic/family violence

This proposal reflects an incremental policy as it is built upon the landmark Women Development

Code of Davao City which was passed into an ordinance on September 17, 1997. With the approval of the Code's implementing rules and regulations (IRR), a loophole is identified, specifically, on family violence and women battering. The Code provides, among others, for the creation of the city-wide multi-disciplinary and multi-sectoral Coordinating Council on Family Violence but is silent on the nature of coordinated community response.

This project provides a comprehensive community response to the violence occurring in the homes and communities in order to promote gender justice at the grassroots level while looking into measures of economic equity. It brings together efforts of coordinating and collaborating towards achieving a certain level of unity on changing basic structures of society. It supports continuing program for empowerment genuinely responding to the basic needs and problems of the grassroots communities as it reaches out to victim-survivors of domestic/family violence.

The project leads women in linking their problems with the community's problems making them integral yet distinct as women work collectively in micro-macro approach in the community. The project may become a point of entry in consolidating efforts of educating and organizing communities with gender and social enterprise development as components. It further encourages communities to rediscover indigenous healing practices as they apply to psycho-social problems of women and children in particular and the community as a whole.

When positively launched the project serves as a pilot in replicating a study towards the formulation of a Women Development Code in other municipalities and barangays. This proposal entails lobbying with all local structures for its adoption and building network for its continuity through LGU-NGO-PO collaboration.

Project No. SP-5

1.	PROJECT TITLE	:	Cooperative Marketing
2.	LOCATION	:	Selected barangays throughout the DIDP Area
3.	IMPLEMENTING AGENCIES	:	Cooperatives
4.	OBJECTIVES	:	(1) To establish alternative marketing channels through cooperative activities; and (2) To increase income for member farmers of cooperatives, minimizing leachages to outside.
5.	EXPECTED EFFECTS	:	Autonomous rural communities with bailed-out farmers, free from middlemen
6.	PROJECT COSTS	:	₱ 230 million to cover 20% of all the barangays
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 – Phase 2
8.	PROJECT DESCRIPTION	:	

Most widely produced crops in the DIDP Area are paddy and coconut. These are exactly the crops that suffer most from marketing problems of rice and copra. Many paddy and coconut farmers have fallen victims of chronicle debts. This situation causes also various social problems. For instance, many out-of-school youth in a copra-producing area go to urban centers to find jobs or even become overseas contract workers.

The project aims to bail out member farmers of cooperatives from debts by providing additional working capital and alternative market outlets for the rice and copra. The NGO consortium has identified several on-going or new endeavors by various cooperatives mainly for rice and copra. Some of them are as follows

Location	Commodity	Cooperatives
San Jose, Boston	various agro-products	KADECO
Lupon	copra	LCPC
Dapnan, Baganga	copra	DSCFMC
Cabancalan, Banaybanay	rice	CAFCO
Cabadiangan, Lupon	rice	CAMCO
Kalagan, San Isidro	copra etc.	KAMUPCO
Bitaugan, San Isidro	copra	SIDOC
La Union, San Isidro	copra etc.	LUMUPCO

Project No. SP-6

1.	PROJECT TITLE	:	Integrated Micro-Finance with Production and Cooperative Transaction (IMPACT)
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	An independent entity to be organized by the consortium of NGOs and POs
4.	OBJECTIVES	:	(1) To establish viable mechanisms to sustain and enhance the entrepreneurial capacities of micro and small enterprises. Specific: (a) to improve the entrepreneurial competencies of cooperatives, individuals and family enterprises, and (b) to develop innovative, non-traditional banking one-stop shop window to cater for varied and increasing needs of micro and small enterprises
5.	EXPECTED EFFECTS	:	Micro and small enterprises as viable economic entities to support the robust economic structure of the DIDP Area
6.	PROJECT COSTS	:	₱ 80 million
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 – Phase 2
8.	PROJECT DESCRIPTION	:	

The IMPACT program provides mechanisms for improved access to credit and savings facilities for cooperatives and individual and family enterprises. Different actors will be involved in the program as follows.

Cooperatives

- Provide members and individual entrepreneurs with access to both short and long term working capital.
- Enable members and individual entrepreneurs to obtain a higher return on their assets and to expand their businesses.

Individuals and family enterprises

- Credit enables individuals and family enterprises to invest, thereby contributing to growth and the alleviation of poverty.
- Savings provide a safety net during periods of disaster.
- Effective financial services mitigate rural communities from seasonal income fluctuations and the adverse impact of nature's vagaries in agricultural production.
- Non-traditional financial services can be an opportunity for the unbankables to be provided with access to credit and ease the difficulty of accessing for working capital.

NGOs

- Provide technical support mechanism – training, follow-ups, consultancy – in the course of the program.

Banks

- Provide the appropriate fund window to the micro-enterprise sector as mandated by the Government.

Roles of the IMPACT program are the following:

- to provide financial resources, particularly for capital investment,
- to help governments formulate policies for the efficient provision of financial services to the micro and small enterprises,
- to improve the economic, legal and social environment to enhance financial services to the poor, and
- to assist in assessing the viability of proposed projects and the performance of existing ones and financial self-sustainability of rural financial intermediaries.

Project No. SP-7

1.	PROJECT TITLE	:	Cooperative-based Integrated Food Production Model
2.	LOCATION	:	Davao del Norte and Compostela Valley
3.	IMPLEMENTING AGENCIES	:	NGO/POs in cooperation with LGUs
4.	OBJECTIVES	:	(1) To establish a community-based yet integrated agricultural program for food security; and (2) To realize self-reliant farming communities with empowered families supported by food security and social infrastructure.
5.	EXPECTED EFFECTS	:	Sustainable countryside development. Restored dignity of farming families.
6.	PROJECT COSTS	:	₱ 100 million
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 – Phase 2
8.	PROJECT DESCRIPTION	:	

The project program will be implemented utilizing the Cooperative Integration Model with the following components.

(1) Social component

- Community organizing and extension work,
- Women and children organizing and development (women socioeconomic projects, early childhood program, literacy program etc.), and
- Education and value enhancement.

(2) Economic component

- Technology transfer – lowland appropriate technology, upland appropriate farm technology utilizing the SALT program,
- Production: primary cooperatives for:

  Backyard animal dispersal,
  Rice and corn production,
  Livestock, poultry and dairy production, and
  Fruits,

- Processing: secondary cooperatives with:

  Dryer and rice and corn mills,
  Fertilizers and feedmills,
  Slaughter houses,
  Meat processing plant,
  Dairy, and
  Fruit processing plant,

- Marketing and distribution with:

  Transport system (secondary cooperatives to transport products of primary coops to the food center), and

  Distribution consisting of production-based cooperatives, wholesale society, consumer-based cooperatives, and market vendors.

(3) Research, documentation, publication and information,

(4) Infrastructure development, maintenance and upgrading, and

(5) Credit assistance.

The first component is the enhancement of farming communities and cooperatives to improve and increase the quantity and quality of their grains product. This is done through: (a) strengthening their community organization -- to challenge farmers within each community to unite and work in *bayanihan* spirit to establish and develop their farms; and (b) effective transfer of appropriate technology in lowland as well as upland farms, e.g. organic farming methods. Research and application for the production of organic fertilizers and pesticides, integrated agro-forestry training, locally produced feed mill for their livestock program, etc. Improving productivity and profitability nonetheless revolves around the premise of completion of land redistribution and eradication of tenancy relations, and availability of irrigation and post-harvest facilities.

The second component is the establishment of Provincial Agricultural Commodity Terminal (PACT), i.e. the Davao del Norte-Comval Agricultural Commodity Terminal, also known as Food Center. Its main functions are to ensure efficient and effective distribution and marketing of the two provinces' agricultural products and ensure steady and continuous supply of basic agricultural raw materials for industrial processors through:

(1) Provision of various post-harvest and semi-processing facilities such as warehouses, cold storage, dryers, product grading and classification, and slaughterhouses,

(2) Special assistance and services such as market information, auction market, and credit,

(3) Infrastructure development support including power supply and communication facilities,

(4) A marketing system that includes (a) the procurement of inputs from the municipal cooperatives and farmers associations at the barangay level, and (b) PACT to sell its commodities to marketing intermediaries like wholesaler/retailers, brokers, sales representatives, facilitators like warehouses and bank, or directly to industrial users of the agricultural commodities such as food processors, and

(5) Credit assistance for farm inputs.

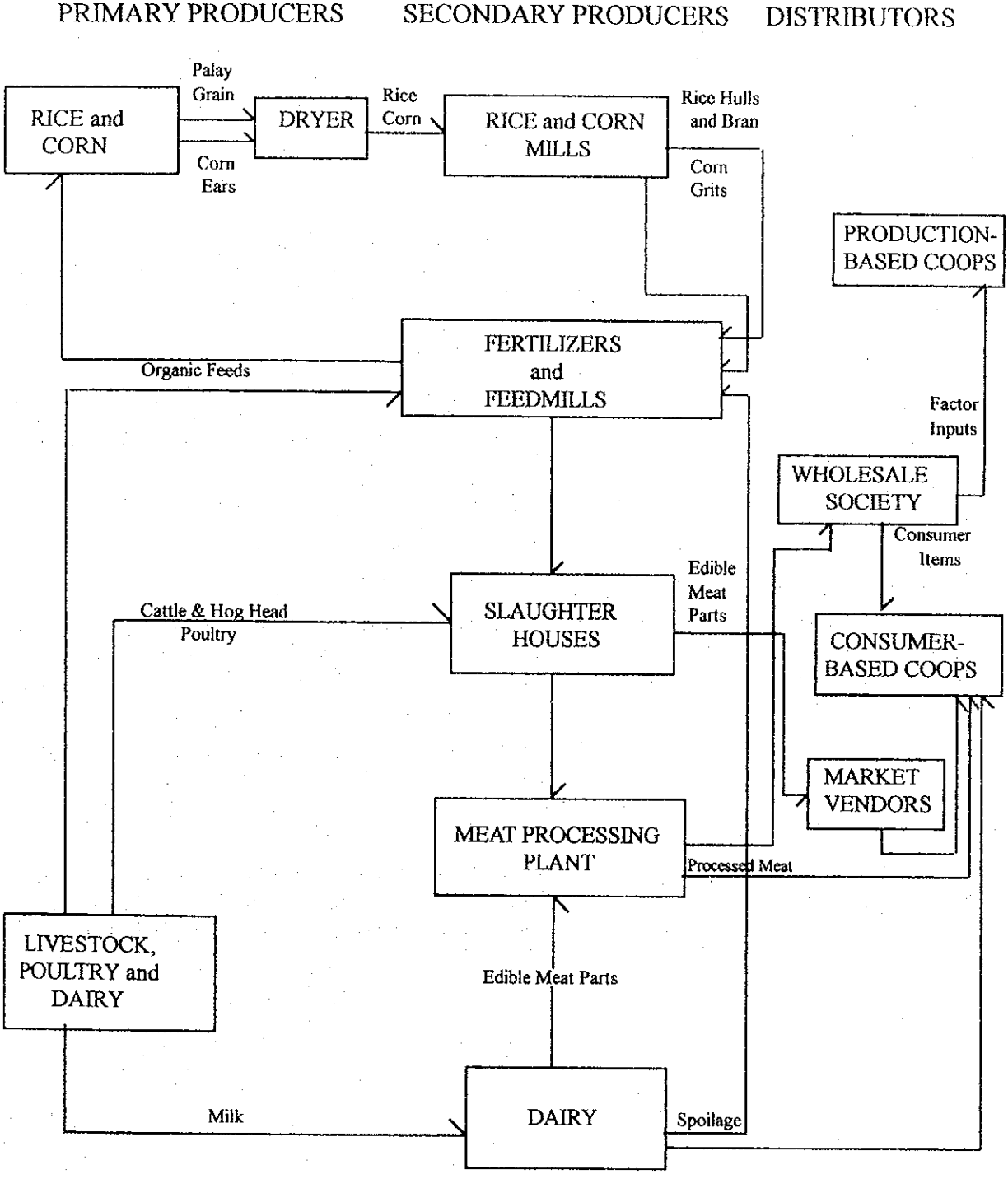
An Agricultural Commodity Terminal is not a mega-center that has large storage and centralized processing center for livestock, feeds and fertilizers. Instead it will first encourage group of communities to specialize in the mass production of one or few products that are suitable in the area. The community(ies) will also engage in simple processing and local marketing. There is a need for a food center as far as the primary cooperatives/communities are concerned for excess products/finished products/semi-finished products for marketing.

The Agricultural Commodity Terminal as a cooperative terminal will establish and provide services and technology that will compliment and not duplicate the effort of the local (communities/ cooperatives) such as the production of organic fertilizers, feed mill and other high tech (and ecology friendly) processing facilities. Raw and semi-processed materials will come from the communities. It will only establish projects and/or technical services in response to the expressed needs of the communities.

Through a publication, these communities will keep abreast of the latest happenings of the other communities and their network and will have a venue for cultural and artistic expressions.

Beneficiary communities will manifest their respect and love for life through their effort to arrest rampant destruction of the environment through organic farming, proper attitude at home (domestic waste disposal) and by adhering to the advocacy for ecology in addition to their organic farming system both in the lowland and upland. They will especially participate in the reforestation of the watershed areas and show interest in the advocacy to protect the coastal resources as well as be mindful of the pollution caused by dumping of industrial wastes in canals, creeks and rivers.

COOP INTEGRATION MODEL



Project No. SP-8

1.	PROJECT TITLE	:	Comprehensive Shelter Planning Partnership Program
2.	LOCATION	:	Davao City, Digos-Sta. Cruz, Panabo-Carmen-Tagum, Nabunturan, Island Garden City of Samal, Mati, and Jose Abad Santos
3.	IMPLEMENTING AGENCIES	:	NGO, LGU, private developers and national housing agencies' regional offices, supported by DENR, DAR, and the Department of Justice – Registry of Deeds
4.	OBJECTIVES	:	(1) To rationalize roles and use of local and national finance for housing and prioritize housing projects; and (2) To match prioritized housing projects to collective local resources and capabilities of various partners involved in housing development.
5.	EXPECTED EFFECTS	:	Dissolution of local housing backlog Demonstration of operationalized Local Government Code and the Housing Act to give impetus to localization
6.	PROJECT COSTS	:	₱ 20 million for the seven urban clusters
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 – Phase 2

8. PROJECT DESCRIPTION

Provision of shelters is one of basic services to be provided by LGUs according to the Local Government Code. The present practice of shelter delivery, however, still remains in the hands of the Central Government. The Urban Development and Housing Act, enacted later, has restricted the roles of LGUs and provides other stakeholders in housing to exercise their roles.

To simplify the process of devolution and to effectively provide the housing to the people who need it most, the project will establish an "arena" where all the stakeholders are put together to prepare a comprehensive shelter plan. In the common ground of planning, commitments shall be developed, roles defined, and expectations and outcomes clarified.

Finally, priority housing projects shall be unambiguously identified, which will provide a concrete basis for further cooperation between stakeholders in the implementation stage. Limited local resources and capacities shall be matched with the priority projects, and national leverage enhanced.

Project No. SP-9

1.	PROJECT TITLE	:	Participatory Agro-Ecology Resource Enhancement and Management
2.	LOCATION	:	Coastal barangays of Matiao, Badas, Dawan, Mamali and Macambol, Mati South
3.	IMPLEMENTING AGENCIES	:	NGO/POs in cooperation with LGUs and government agencies
4.	OBJECTIVES	:	(1) To protect and enhance coastal resources with participatory management by coastal communities.
5.	EXPECTED EFFECTS	:	Enhanced responsibility and participation of the coastal communities in the management of coastal resources. Established community-based socioeconomic projects. Reinforced bantay dagat for law reinforcement.
6.	PROJECT COSTS	:	₱ 20 million
7.	IMPLEMENTATION SCHEDULE	:	Phase 1
8.	PROJECT DESCRIPTION	:	

The project has the following components.

(1) Community organizing down to its basic unit (family grouping),

(2) Value formation including:

- basic ecology orientation,
- sustainable development, and
- gender planning,

(3) Capacity building for:

- community-based coastal resources management,
- laws and ordinances related to coastal and marine resources use and management, and
- wildlife conservation,

(4) Producers cooperative development covering:

- identification, training and cooperative development,
- socioeconomic projects,
- participatory project management, monitoring and evaluation,
- food processing, and
- novelty items,

(5) Marketing,

(6) Eco-tourism, and

(7) Replication.

A combined bottom-up and top-down approach will be applied to the project implementation by a multi-partite system consisting of POs, line agencies concerned, LGUs and NGOs.

Project No. EC-1

1.	PROJECT TITLE	:	Small Irrigation Development Project
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	NIA, DA, BSWM, Provincial/City Agriculture Offices
4.	OBJECTIVES	:	To increase irrigation areas through establishment of appropriate, and cost-efficient irrigation schemes
5.	EXPECTED EFFECTS	:	Increased agriculture production and farmers income
6.	PROJECT COSTS	:	₱ 1,442 million
7.	IMPLEMENTATION SCHEDULE	:	1999 - 2004
8.	PROJECT DESCRIPTION	:	

The present irrigation development in the Philippines is largely implemented through gravity-type irrigation systems which entail construction of concrete dams. The establishments of these irrigation systems require huge investment which drains government coffers as costs are often not recovered. Likewise, this scheme is not affordable for the farmers. In order to limit construction of these costly irrigation systems, the choice of irrigation scheme to be established on a specific area basis shall be based on the potential water resource and small irrigation schemes.

Sources of irrigation water may be groundwater by shallow tube wells, or surface water by multi-purpose SWIM schemes or SRIP schemes if sufficiently high economic rate of return is expected. Irrigation development shall be in consideration of the water resource potential and crop selection identified through irrigation R & D. Various industrial crops may be introduced under supplemental irrigation.

The project has three component: identification of water sources, technical assistance and provision of credit facility. Water sources identification shall be undertaken by the Center for Irrigation Research to be established at the University of Southeastern Philippines. Technical assistance shall be provided by trained extension workers of LGUs who are identified specialists in irrigation technology. The extension of workers shall assist the farmers, cooperatives and other farmer groups in the selection of site and selection of irrigation methods for different crops. A credit facility for the acquisition and installation of pumps shall be provided at the Land Bank of the Philippines (LBP).

Project No. EC-2

1.	PROJECT TITLE	:	Commercial Farms Convert ARBs Support Program
2.	LOCATION	:	DIDP Area (especially Davao del Norte)
3.	IMPLEMENTING AGENCIES	:	DAR/LGUs/DA/LBP
4.	OBJECTIVES	:	To assist ARBs in becoming self-reliant
5.	EXPECTED EFFECTS	:	Independent and viable ARBs
6.	PROJECT COSTS	:	₱ 1,284 million
7.	IMPLEMENTATION SCHEDULE	:	1999 – 2005
8.	PROJECT DESCRIPTION	:	

After the deferment period for large scale commercial farms, land transfer to ARBs going to start. Having been dependent labors for a long time, it will take long for them to change their mind into self-reliant farmers.

This support program will be implemented for those ARBs, and will have the following:

(1) training on agronomy, agro-economy, marketing, cooperative development, etc.
(2) financial support through credit, and
(3) infrastructure support such as irrigation facility provision.

Project No. EC-3

1.	PROJECT TITLE	:	Abaca Industry Revitalization Project
2.	LOCATION	:	Davao City, Davao del Norte, Compostela Valley, Davao Oriental
3.	IMPLEMENTING AGENCIES	:	Fiber Industry Development Authority and LGUs
4.	OBJECTIVES	:	To dramatically increase production of abaca fiber in the DIDP Area
5.	EXPECTED EFFECTS	:	Increased agriculture value added
			Expanded abaca fiber processing industry in the Area resulting from adequate raw material supply.
6.	PROJECT COSTS	:	₱ 140 million
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 – Phase 2
8.	PROJECT DESCRIPTION	:	

Some new trends in the market is encouraging the revival of the abaca industry in the DIDP Area. The growing environment consciousness is slowly influencing the markets' patronage for biodegradable materials which may put the abaca cordage back into its previous market position. In addition, R&D generated a host of products utilizing abaca fiber as major raw material. Most important among the range of products are abaca pulp and paper which can be converted into a variety of commodity items such as tea bags, currency paper, cosmetic paper, fancy writing pads, etc. Recently, local technology has made a breakthrough in converting abaca fiber into clothing materials.

The DIDP abaca producing provinces are still the highest performers in abaca production despite the disease that almost wiped out the crop once. The Area, particularly Davao Oriental and Davao City offers a large area suitable for the production of abaca.

The project includes five components; (1) technology adaptation and dissemination, (2) monitoring of plantations, (3) provision of credit, (4) market research and development, and (5) product development which shall be taken up by the Center for Abaca Research to be established at DOSCST.

The first component shall make use of technology generated from the Abaca Research Center to be established at DOSCST and other research centers for the control of diseases, use of good planting materials and maintenance of plantations. Technologies including plant varieties shall be adapted to the area and disseminated to the farmers. The second component shall include inspections of plantations for possible occurrence of disease to immediately arrest and control spreading to other areas. The third component shall be provision of capital for re-planting and planting of new areas with pure planting materials derived from the tissue culture laboratories of research centers. Credit may also apply to primary processing of abaca such as abaca stripping machines. Credit shall be supplied through the schemes provided under the Financing and Marketing Assistance Project formulated for agriculture under the master plan.

Project No. EC-4

1.	PROJECT TITLE	:	Agro-processing Promotion Project
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	DOST/Universities/DTI and the private sector
4.	OBJECTIVES	:	To promote agro-processing industry in the DIDP Area
5.	EXPECTED EFFECTS	:	Increased value-added of local products Diversification of market for agro-products
6.	PROJECT COSTS	:	₱ 325 million
7.	IMPLEMENTATION SCHEDULE	:	Phase I (1999 – 2000) Phase II (2006 – 2010)
8.	PROJECT DESCRIPTION	:	

Processing raw agricultural products is an important option to diversify market and increase value added. Agro-processing industry will also create new employment opportunities.

The project aims to promote processing industry of agricultural products produced in the DIDP Area. The project has the following components:

(i) Promotion of agro-processing of mango (dried mango, jam, etc.) and coconut for immediate implementation through information dissemination and training, and

(ii) R & D on market and products development.

To meet the expected increase in supply of mango fruit in the near future and to re-vitalize the existing coconut industry, agro-processing for those commodities will firstly be promoted (Phase I). While promoting the processing of the above commodities, market research and development of other commodities will be made. It will include durian and other fruits, dairy, confectionery, rubber, cashew etc. Improved packaging of fruits and processed fruits will also be promoted, including wider use of corrugated paper boxes to reduce wastage of products during transportation.

Project No. EC-5

1.	PROJECT TITLE	:	Livestock/Poultry Promotion Program
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	DA/LGUs (PVO/CVO)/DOST/SUCs
4.	OBJECTIVES	:	(1) To make livestock more profitable; and
			(2) To assist back-yard raisers in making profit.
5.	EXPECTED EFFECTS	:	Increased income for small-scale farmers
			Increased value added in livestock/poultry sub-sector
6.	PROJECT COSTS	:	₱ 562 million
7.	IMPLEMENTATION SCHEDULE	:	Phase I (1999 – 2005)
			Phase II (2006 – 2010)
8.	PROJECT DESCRIPTION	:	

At present majority of livestock raisers in the DIDP Area are small scale, and animals are raised at their backyards. They face difficulty in making profit due to high costs for feeds and low prices.\
In order for them to earn more from livestock/poultry industry, public sector intervention should be efficient and effective. The following will be implemented besides the current efforts being made by PVOs/CVO:

(i) establishment of a liquid nitrogen supply center within the DIDP Area to help efficient AI to be conducted by PVOs/CVO;

(ii) establishment of a diagnostic laboratory per Province/City;

(iii) R & D for low cost feed making most of locally available resources like sugarcane top, pineapple top, oil cake, crop residue, etc. (this component will be taken up by the Project No. EC-7);

(iv) improved forage production;

(v) improvement/establishment of auction markets with proper market information; and

(vi) improvement of public slaughter houses.

The project may also establish production centers for livestock and poultry to conduct intensive technical extension. Specifically, anchor farms for small ruminants, dual purpose (range type) poultry production center, carabao-based dairy production center, and swine breeding center may be established.

Project No. EC-6

1.	PROJECT TITLE	:	Herbal Plants Multiplication and Dissemination Project
2.	LOCATION	:	Davao City
3.	IMPLEMENTING AGENCIES	:	LGUs/DOH/DOT/DA
4.	OBJECTIVES	:	(1) To establish a herbal garden to serve as a tourism attraction; and (2) To contribute to the improvement of health conditions of people in rural areas and the enhancement of their awareness on health.
5.	EXPECTED EFFECTS	:	Improved health status of the local people Promoted tourism development
6.	PROJECT COSTS	:	₱ 33million
7.	IMPLEMENTATION SCHEDULE	:	
8.	PROJECT DESCRIPTION	:	

Herbal plants have long been used by local people including IPs for medical care. In order to preserve their cultural value and even to spread it out, R&D on herbal plants will be strengthened through the following:

(i) collection of herb plants from all over the country to establish a herbal garden,
(ii) research on effects of herbal plants,
(iii) selection of effective herbal plants for multiplication,
(iv) development of herb medicine from effective herb plants, and
(v) dissemination of effective herbal plants to rural people.

Project No. EC-7

1.	PROJECT TITLE	:	Organic Farming R & D Project
2.	LOCATION	:	Davao City, Davao del Sur
3.	IMPLEMENTING AGENCIES	:	DOST/DA/DENR/LGUs
4.	OBJECTIVES	:	(1) To promote recycled agriculture (society); and (2) To maximize the utilization efficiency of local materials.
5.	EXPECTED EFFECTS	:	Realizing recycling society Increased value-added on agriculture products
6.	PROJECT COSTS	:	₱ 32 million
7.	IMPLEMENTATION SCHEDULE	:	
8.	PROJECT DESCRIPTION	:	

While organic farming requires high technology and sometimes high costs, the products could be marketed at premium prices for those who have keen concern with health food. Organic farming will be realized by replacing chemical products like chemical fertilizer and agro-chemicals with those derived from organic matters.

The project will pursue the realization of organic farming, through the development of organic fertilizer and bio-chemicals as alternative inputs by utilizing local materials as much as possible. The project will mainly be an R&D scheme, and consists of three components:

(i) Compost making from various resources (garbage, animal wastes, oil cake, agro-industry wastes, etc. as materials);

(ii) Pest control methods development (neem seed extract, trichogramma, insect repellent crops); and

(iii) Crop rotation system development (introduction of leguminous crops, green manure).

As for (i), garbage collection and its recycling system development will be included (Project No. EN-16a).

The NGO consortium has proposed the pilot implementation of organic farming and organic fertilizer production in Davao del Sur, starting with Barangay Sinaragan, Matanao. It includes the establishment of an appropriate organic farming system in lowland areas, establishment of an area-based plant for organic fertilizer, education and trainings, and the establishment of demonstration farms.

Project No. EC-8

1.	PROJECT TITLE	:	Agricultural Research, Development and Extension Program
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	SMARRDEC, LGUs, Private Sector
4.	OBJECTIVES	:	(1) To re-focus agricultural research program to the needs of DIDP Area; and (2) To make agricultural research agenda responsive to the priorities of the DIDP Area.
5.	EXPECTED EFFECTS	:	Increased value-added in agriculture by improved technology, and newly developed products
6.	PROJECT COSTS	:	₱ 504 million
7.	IMPLEMENTATION SCHEDULE	:	1999 - 2004
8.	PROJECT DESCRIPTION	:	

The DIDP Area produces a variety of agricultural products. In order to maximize value-added derived from these products, a rational research program should be formulated. The program shall contain three components: a research agenda, establishment of research and extension centers (including demonstration farms), strengthening of the SMARRDEC capability to unify and focus the research agenda, monitor all on-going research activities in the Area, and transmission of every relevant research information to the NIN which will be set up under RA 8435.

The research agenda for the short term based on the priorities shall be identified to support agriculture development under the master plan. This agenda shall include: development of new processed products for fruits and vegetables, development of technology to improve processed rubber, abaca and ramie fibers, development of technology for low-cost livestock and poultry feeds, development of world-competitive new hybrid orchids and other cutflowers, development of postharvest technology for copra drying, continued research to improve trichoderma and trichogramma technology and assessment of surface water resources potential and ground water characterization for irrigation development.

Four research and extension centers shall be established at different colleges and universities where capability is already established. These include:

(1) Horticultural Postharvest Institute at Davao Oriental State College of Science and Technology,

(2) Research Center for Cutflower at University of Southeastern Philippines in Apokon, Tagum City,

(3) Research Center for Abaca at Davao Oriental State College of Science and Technology,

(4) Research Center for Livestock anf Poultry at University of Southeastern Philippines in Apokon, Tagum City, and

(5) Research Center for Irrigation Development at University of Southeastern Philippines.

Although research centers are administratively under the SUCs, researches may be cooperative efforts of various related agencies to be determined by SMARRDEC. Research activities being undertaken by various centers particularly on trichogramma and trichoderma technology and postharvest for coconut shall be supported with substantial funding for early completion.

The SMARRDEC capability to enhance its functions cited above shall include provision of computer facilities and internet access to efficiently link up with research institutions (national and international), PCARRD, PCAMRD, the NIN and other institutions to access most recent information relevant to the improvement of agricultural R&D and extension service in the DIDP Area and the whole of Region XI. Likewise, organizational capacity of the secretariat shall be enhanced to undertake monitoring of the research program.

Project No. EC-9

1.	PROJECT TITLE	:	Extension Workers Capability Enhancement Project
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	DA, Provincial/City and Municipal Agricultural and Veterinary Offices, SUCs, Agricultural Research Centers, ATI and SMARRDEC
4.	OBJECTIVES	:	(1) To develop and establish a pool of agricultural production specialists in various fields; and (2) To improve adoption of technologies by the farmers.
5.	EXPECTED EFFECTS	:	Increased production and income of agricultural producers through improved technology transfer
6.	PROJECT COSTS	:	₱ 216 million
7.	IMPLEMENTATION SCHEDULE	:	2000 - 2004
8.	PROJECT DESCRIPTION	:	

Extension workers have become generalists after two major bureaucracy restructuring that affected the agriculture organization. The last reogranization of the DA made the extension workers generalists after the line bureaus became staff bureaus of the department and the extension workers placed under the regional and the provincial offices. Then, the Local government Code of 1991 transferred delivery of extension services to LGUs, making the problems of extension service worse due to the inability of the local governments to update the knowledge of the extension workers. This resulted to erosion of confidence of farmers in the government extension workers.

This project intends to generate specialists in various fields of agriculture production to be assigned in production areas of specific commodities (i.e., dominantly produced). Under the project, the Provincial/City Agriculturist Offices shall identify among the extension workers specialists in various fields based on their requirements, such as: tree crops specialists, temperate vegetables specialists, livestock breeding specialists, plant diseases specialists, etc. Each group of specialists shall receive all the necessary trainings from various training institutions and research centers. While the specialists maintain their knowledge in general agriculture, each of them is an authority in one field whom other extension workers can refer to.

The pool of specialists shall be chosen based on their educational background and previous work experiences. The ATI, in collaboration with the local government agriculture/veterinary offices, the DA regional office and the SMARRDEC shall prepare a training program for this purpose which would include exposure to actual practices through field trips and on-the-job trainings. In addition, the current deficiency of extension workers should be addressed by the LGUs. At least, there should be one extension worker assigned for every agricultural barangay.

Project No. EC-10

1.	PROJECT TITLE	:	Sustainable Rural Cooperative Development Program
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	CDA Regional Office, City/Provincial Cooperative Offices
4.	OBJECTIVES	:	To enable farmers to take advantage of the benefits of collective efforts in agriculture activities from production to marketing of product.
5.	EXPECTED EFFECTS	:	Well-established cooperatives with a thriving agri-business
6.	PROJECT COSTS	:	₱ 266 million
7.	IMPLEMENTATION SCHEDULE	:	1999 - 2004
8.	PROJECT DESCRIPTION	:	

Despite the commonly distressing plight of many cooperatives, promotion of the same is still a worthy strategy towards improving agricultural production and the lives of small farmers for the following reasons:

- Support services for agricultural activities could easily be channeled through cooperatives;
- Cooperatives of existing commercial farms need retooling to effectively manage commercial farms under the four given options;
- Cooperatives can be a medium for preparing farmers for domestic and international trading collectively; and
- There is need to continuously monitor and sustain cooperatives.

The project is basically training assistance for all types of cooperatives. The project includes three components: (1) training needs assessment of all types of cooperatives, (2) preparation of training programs, schemes and modules, and (3) conduct of actual trainings.

Project No. EC-11

1.	PROJECT TITLE	:	Agricultural Market Information System Improvement Project
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	Bureau of Agricultural Statistics
4.	OBJECTIVES	:	(1) To increase profitability of farming activities; and (2) To enable farmers to become entrepreneurial producers.
5.	EXPECTED EFFECTS	:	Increased profitability of agricultural production for the farmers/producers
6.	PROJECT COSTS	:	₱ 62 million
7.	IMPLEMENTATION SCHEDULE	:	Phase I (up to 2000) : Installation of BAS sub-station in existing production areas to start with Marilog, Maragusan and Kapatagan. Phase II (from 2001) : Setting up of BAS sub-station in production areas.

8. PROJECT DESCRIPTION :

At present, the content of agricultural market information generated by the Bureau of Agricultural Statistics (BAS) of the Department of Agriculture is very insufficient. Information supplied to the public are useful mainly for consumers but rarely useful to farmers. Timeliness of information for marketing the products is often not attained while processed information to help farmers prepare their cropping patterns or farming plans is not disseminated. Information needs of farmers should be supplied to transform the farmers from mere producers into producer-entrepreneurs.

The production areas for various crops shall be linked to the respective National Information Network (NIN) at the municipal, provincial and the regional levels which will be set up by DA at BAS as provided in RA 8435 (the Agriculture and Fisheries Modernization Law). The existing marketing information system of BAS shall be enhanced and expanded through the NIN. A sub-station of BAS shall be established in each identified production area (with a reasonable area and volume of production, e.g., Maragusan and Kapatagan). These areas shall be integrated into NIN. These sub-offices of BAS shall be equipped with computers and telecommunication facilities to process and transmit information at the earliest possible time. Implementation of this project shall proceed with the phasing of the development of telecommunication development of the area and establishment of the NIN in the provinces and the municipalities. Innovative schemes of linking the BAS sub-stations to the NINs shall be established until such time that telecommunication infrastructure is set up to support a high-tech information technology (with electronic data base, processing and information transmission) in the production area.

Project No. EC-12

1.	PROJECT TITLE	:	Agricultural Production and Marketing Financing Program
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	DA, City Agriculturist Office, Provincial Agriculturist Offices of Davao Province, Davao del Sur, Davao Oriental, Compostela Valley, Land Bank of the Philippines, Cooperatives
4.	OBJECTIVES	:	(1) To enhance productivity through increased input utilization; and (2) To give the farmers fair prices for their produce.
5.	EXPECTED EFFECTS	:	Increased farmers' income and farm productivity
6.	PROJECT COSTS	:	₱ 228 million
7.	IMPLEMENTATION SCHEDULE	:	Year 2000 and succeeding years (continuing program until farmers cooperatives are self-sustaining).
8.	PROJECT DESCRIPTION	:	

The project is basically credit assistance to small farmers and farmers' cooperatives. There are three types of credit that would be provided under this program: production loans, personal loans and marketing loans. Production and personal loans are intended for the small farmers, the former to finance their production activities (raising crops, poultry, animals, etc.) and the latter to support the farmers' family needs (food, medical services, children education) before harvest. Provision of this type of loan is important to prevent farmers from using production loans for their personal needs. Marketing loans would be provided for established cooperatives with good tract record in credit and trading of agricultural products. This loan is intended to provide cooperatives with capital to go into input distribution and agriculture commodity trading. This way, the cooperatives can purchase agricultural products thereby providing the farmer-members with an alternative market.

LGUs shall provide a seed fund to LBP for lending to the cooperatives. Production loans shall be wholesaled to the cooperatives on a credit line method. The cooperatives shall become loan retailers to the farmer-members for their production and personal needs. Cooperatives intending to undertake input distribution and commodity trading shall be given access to credit facility for agricultural marketing. MAOs through the recommendation of their extension workers shall certify the credit-worthiness of cooperatives who intend to borrow from LBP under this program. A periodic evaluation of the project shall be undertaken by the PAO vis-a-vis attainment of objectives and repayment of loans, the results of which shall be the basis of innovations to bring back the project's focus to its goal.

Project No. EC-13

1.	PROJECT TITLE	:	Agricultural Potentials Survey Project
2.	LOCATION	:	Davao del Norte, Davao del Sur, Compostela Valley, and Davao Oriental
3.	IMPLEMENTING AGENCIES	:	LGUs, DA (BSWM) and PAGASA
4.	OBJECTIVES	:	(1) To prepare a solid base for agricultural land use planning; and (2) To prepare more accurate suitability maps.
5.	EXPECTED EFFECTS	:	More proper agricultural land use planning Increased agricultural productivity
6.	PROJECT COSTS	:	₱ 96 million
7.	IMPLEMENTATION SCHEDULE	:	2000 - 2005
8.	PROJECT DESCRIPTION	:	

Information for preparing land capability maps and agro-ecological zoning for the DIDP Area is still insufficient. Land evaluation report for Davao Oriental has not been conducted, and soil survey density has not been sufficient for land capability classification even for other City/Provinces. Meteorological stations under PAGASA have been established in only three locations for the entire DIDP Area.

In order to make agricultural land use planning more accurate, the project will be implemented with the following.

(1) Detailed soil survey and physico-chemical analysis of soil samples for Davao del Norte, Compostela Valley, Davao del Sur and Davao Oriental to prepare soil maps and land capability maps. It will be conducted by BSWM XI of DA, as a part of LARIS project, in cooperation with LGUs. GIS technology will be used.

(2) Meteorological stations will be established at least one per each municipality of the City/Provinces. Climatological data including temperature, humidity and rainfall will be accumulated in PAGASA, and processed further into isohyetal map and others by using a GIS.

(3) Combining with other existing data, a land suitability map and an agricultural zoning map will be prepared for the entire DIDP Area.

Project No. EC-14

1.	PROJECT TITLE	:	Fisherfolks Livelihood Enhancement Program
2.	LOCATION	:	Coastal communities in the DIDP Area
3.	IMPLEMENTING AGENCIES	:	Coastal municipalities, RFTC, Fisheries Associations/Cooperatives, NGOs
4.	OBJECTIVES	:	(1) To enhance the livelihood of subsistence fisherfolks to make them vialbe economic entities; and (2) To revitalize fishery as essential component of agri-industrialization drive of the DIDP Area.
5.	EXPECTED EFFECTS	:	Improved socio-economic conditions of fisherfolks Strengthened fishery sector to support the DIDP agri-industrialization
6.	PROJECT COSTS	:	₱ 50 million
7.	IMPLEMENTATION SCHEDULE	:	To start in Phase 1
8.	PROJECT DESCRIPTION	:	

The fisherfolks along the coasts of Davao Gulf and the east coast of Davao Oriental engage largely in subsistence fisheries within municipal waters. Most of them use traditional fishing gears and skills for modest harvests. Some undertake illegal fishing activities, undermining sustainability of municipal fishery. The performance of municipal fishery has been irregular in recent years, although the municipal fish production does not show any clear sign of decline. Some municipal fisherfolks have been organized to enter into commercial fishery effectively.

The program aims to enhance the livelihood of fisherfolks in two ways. One is to organize municipal fisherfolks and let them enter into larger-scale operation, by providing training, improved facilities and credit. The other is to develop alternative means of livelihood to diversify their income sources. For these purposes, the following projects will be implemented:

- Fisheries Skills Improvement Project (EC-14a),
- Alternative Livelihood Development Project (EC-14b), and
- Fisheries and Aquaculture Financing Program (EC-14c).

Existing fishing ports and associated facilities such as fish landing device, ice plant and cold storage, fishery boats workshop, and marketing facilities will be selectively improved to support the organized fisherfolks. Subsequently, the improved fishing ports with facilities will be linked to the Davao Fishery Port Complex to facilitate marketing and processing. The following project will serve these purposes:

- Marine Fisheries Support Facilities Improvement Project (EC-15).

Broadening of fisherfolks participation in the management of coastal and marine resources is another important aspect of the program. This will be supported by the following:

- Comprehensive Davao Gulf Management Program (EN-12).

New fisheries codes should be prepared through consultations with coastal communities.

Project No. EC-14a

1.	PROJECT TITLE	:	Fisheries Skills Improvement Project
2.	LOCATION	:	Mati, Mabini, Panabo, Malalag, Babak
3.	IMPLEMENTING AGENCIES	:	Coastal communities, RFTC, Fisheries Associations/Cooperatives in cooperation with Provincial Agriculturist Office and DOST
4.	OBJECTIVES	:	(1) To improve fisheries technologies for municipal fishermen; and (2) To promote the commercialization of the municipal fishermen.
5.	EXPECTED EFFECTS	:	More profitable fisheries activities on sustainable base Development of the technical skills for municipal fisheries
6.	PROJECT COSTS	:	₱
7.	IMPLEMENTATION SCHEDULE	:	Pilot implementation in Phase 1
8.	PROJECT DESCRIPTION	:	

Many fishing activities by municipal fisherfolks are not profitable and may lead to depletion of the fish resources. One of the constraints is capitalization, but another is the lack of opportunities to learn modernized fisheries skills.

The project should be implemented by active fisheries associations/cooperatives through trainers of RFTC in Panabo. The continuos support from DOST is a necessary condition. Each training program should be selected based on the characteristics of existing fisheries resource situations. The project will include the following components:

- provision of appropriate fishing skills such as preservation of fish, mariculture and aquaculture practices,
- regular fisheries training workshops for preventing illegal fishing and promoting appropriate fishing methods,
- information dissemination for the relevant local fisheries officers and fisherfolks, and
- assessment of the implementation of the pilot project.

Project No. EC-14b

1.	PROJECT TITLE	:	Alternative Livelihood Development Project
2.	LOCATION	:	Santa Maria, Don Marcelino, Jose Abad Santos, Maco, Pantukan, Lupon, San Isidoro, Gov. Ganeroso
3.	IMPLEMENTING AGENCIES	:	Coastal municipalities, Provincial Agriculturist Office in cooperation with DA Region XI, RFTC, Fisheries Associations/Cooperatives, NGOs
4.	OBJECTIVES	:	(1) To provide alternative jobs and opportunities for gaining technical skills necessary for the jobs for subsistence fisherfolks; and (2) To decrease the fishing pressure for the depleted fishing grounds.
5.	EXPECTED EFFECTS	:	Alternative income opportunities for subsistence fisherfolks Development of the technical skills for the alternative jobs
6.	PROJECT COSTS	:	₱
7.	IMPLEMENTATION SCHEDULE	:	To start in Phase I
8.	PROJECT DESCRIPTION	:	

The project will cover the coastal municipalities which have many subsistence level fisherfolks. This project should be carried out through the continuos support from DA, RFTC, and DOST. The project will cover the following:

- implementation of technical and feasibility study for candidate works or jobs,
- identification of some appropriate alternative sources of income or job such as cutflowers, cottage industry and others,
- implementation of technical training for the jobs for the subsistence fisherfolks, and
- monitoring the alternative works and fisheries training.

Project No. EC-14c

1.	PROJECT TITLE	:	Fisheries and Aquaculture Financing Program
2.	LOCATION	:	Coastal barangays of Davao del Sur
3.	IMPLEMENTING AGENCIES	:	Cooperative Bank of Davao del Sur
4.	OBJECTIVES	:	*General* To undertake cooperative development and poverty alleviation programs in coastal areas and barangays. *Specific* (1) To provide financial and technical assistance to primary cooperatives particularly those within the coastal areas of Davao del Sur for fish and aquaculture projects, (2) To sustain and expand existing fish and aquaculture projects, and (2) To increase income of fishermen/fisherfolks through additional livelihood projects like but not limited to fish production, salt making and dried fish making.
5.	EXPECTED EFFECTS	:	Enhanced socioeconomic conditions of cooperative members and fisherfolks and increased employment. Strengthened cooperatives with sustained and expanded operations.
6.	PROJECT COSTS	:	₱
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 – Phase 2
8.	PROJECT DESCRIPTION	:	

Rural financing has always been a problem area in rural and urban development particularly among farming/fishing families. The Government had to mandate the agri-aqua law for commercial banks/ financial institutions to slice a part of their loan portfolio for this area which they found risky and costly. This micro lending endeavors for cooperative banks is a program intervention to mitigate the problem.

The Cooperative Bank of Davao del Sur with the objective of strengthening and developing the primary cooperatives and to alleviate poverty among its members and the community intends to help them by providing the means to start livelihood projects and expand and diversify existing ones through micro-financing and technology transfer. In the process, a scheme is built-in to generate residual savings for productive endeavors.

Specifically, this financing projects is geared for fish cages and other aqua-culture projects and allied supplementary income generating activities. Roll-over proceeds shall be used in underwriting expansion or second phase operations.

Project No. EC-15

1.	PROJECT TITLE	:	Marine Fisheries Support Facilities Improvement Project
2.	LOCATION	:	Toril, Santa Cruz, Malalag, Malita, Panabo, Mabini, Aundanao, Balet, Lupon, Mati, Jamboree, Baganga
3.	IMPLEMENTING AGENCIES	:	Fisheries Division, DA Region XI, PFDA in cooperation with BFAR, DTI
4.	OBJECTIVES	:	(1) To upgrade existing fisheries support facilities to develop small scale fisheries; and (2) To promote commercialization of small fisheries.
5.	EXPECTED EFFECTS	:	Development of more competitive fisheries industry in DIDP area Establishment of strong linkage with relevant fishing stations
6.	PROJECT COSTS	:	₱ 300 million
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 : Improvement at selected fishing ports with facilities Phase 2 : Networking of the improved fishing ports with the DFPC

8. PROJECT DESCRIPTION :

Although Davao City has the DFPC and there is much fish resources potential in the coastal area of DIDP, there is no specific development strategy and strong linkage for the present fishery support facilities/infrastructures. One of the prerequisite elements for the commercialization of municipal level fishery is a strategic marine fishery infrastructure development. At present, the lack of fish landing places, post harvest facilities such as ice plant and cold storage in the main fishery areas is one of the main constraints for more profitable and competitive fisheries in the area.

The project should carefully select sites of fishery support facilities and infrastructure. The project also must take into account national level fishery sector development programs to coordinate with the national level development strategies. The project should include the following components:

- formulation of a DIDP strategic fishery support facilities development plan,
- upgrading/renewal of the strategic fish support facilities, and
- establishment of distribution linkages among the strategic fish support facilities.

The main strategic fishery industry development areas could be identified as follows:

- Toril (DFPC), Mati, Malalag, Mabini, Panabo

Project No. EC-16

1.	PROJECT TITLE	:	Integrated Aquaculture Promotion Program
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	Fisheries Division, DA Region XI, PFDA in cooperation with BFAR, DOST
4.	OBJECTIVES	:	(1) To establish aquaculture to diversify fisheries and the economy of the DIDP Area; and (2) To broaden the resource base for agri-industrialization.
5.	EXPECTED EFFECTS	:	Aquaculture as viable economic activities More active fisheries and aqua-processing activities
6.	PROJECT COSTS	:	₱ 40 million
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 : Aquaculture inventory and upgrading of existing facilities Phase 2 : Establishment of central facilities for R & D, extension and seed/fingerlings distribution

8. PROJECT DESCRIPTION :

Despite the long coastline, the aquaculture sub-sector in the DIDP Area, especially brackish and marine aquaculture is very inactive. The aquaculture production in the DIDP Area was only 5,898 tons in 1995, accounting for only 0.6% of the national aquaculture production or the per capita production of 1.8 kg. Potentials for freshwater aquaculture in the DIDP Area are exemplified by tilapia in Sto. Tomas, and milk fish in Florida, Davao del Norte and in Nabuntural and Maragusan, Compostela Valley. The DIDP Area has favourable marine conditions such as appropriate currents and salinity, especially for seaweed cultivation around the Samal island. Potentials for brackishwater aquaculture have been largely unexploited.

To promote aquaculture in the DIDP Area, basic support facilities need to be provided such as hatcheries and seed banks. Distribution channels for seed and fingerlings need to be established, and R & D and technical extension geared up. As the first step, an inventory of existing aquaculture activities and support facilities should be prepared. It should clarify the following:

- location and capacity of existing nurseries/hatcheries,
- ownership of existing facilities,
- ecological conditions of aquaculture activities,
- distribution channels of seed/fingerlings, and
- marketing of aquaculture products.

Based on the inventory, needs for additional facilities will be clarified as well as needs for upgrading existing facilities. Distribution channels for seed/fingerings will be established. For effective R & D and technical extension, central facilities may be established linked with existing R & D institutes and related government agencies.

Project No. EC-17

1.	PROJECT TITLE	:	Marine Fishery Resources Inventory Project
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	Fisheries Division, DA Region XI, DGRDC in cooperation with BFAR, DOST
4.	OBJECTIVES	:	(1) To establish the integrated marine fisheries resources inventory in the DIDP Area; and (2) To promote collaborative marine and fishery inventory researches among the related GO and institutes.
5.	EXPECTED EFFECTS	:	More effective marine fisheries resource management and strategic development
6.	PROJECT COSTS	:	₱ 100 million
7.	IMPLEMENTATION SCHEDULE	:	Phase 1
8.	PROJECT DESCRIPTION	:	

One of the most important bases for the effective management of fisheries resources is good information on the fish stocks. Annual records of catch and fishing efforts are the most important and reliable sources indicating the status of fish stocks. Lack of good quality statistics on catch and effort over time makes the strategy of marine fisheries management difficult due to uncertainties about the prevailing conditions of stocks and catches.

Recently, fish stock assessment research by a fishery officer in DA Region XI as well as some faculties in the colleges in Davao Oriental and Davao del Norte has been carried out in key bays within the Davao Gulf. However, it needs to be expanded with more human resources for research and it must promote exchanging research information to obtain more accurate data. Therefore, close research collaboration work among DA Region XI, Provincial Agriculturist Offices, and research institutes in the DIDP Area will be needed.

This collaborative research could formulate a marine fisheries resources inventory in the DIDP area. This inventory should include the following:

(1) fish resources (fish stock by main marine species, fish landings by fishing gears, vessels, etc.)
(2) fish habitat (status of seagrass, coral, mangroves, oceanographic data, etc.)
(3) fish resource users (number of fishermen, fishing vessels, socio-economic profile, etc.)

Project No. EC-18

1.	PROJECT TITLE	:	Value-Added Fishery Products Development and Marketing Program
2.	LOCATION	:	Davao City, Island Garden City of Samal
3.	IMPLEMENTING AGENCIES	:	Fisheries Division, DA Region XI in cooperation with DOST, BFAR, DGRDC
4.	OBJECTIVES	:	(1) To strengthen competitiveness of commercial fishery through products development for value-added fish and seaweed based products; and (2) To establish strategic marketing channels for the value-added products.
5.	EXPECTED EFFECTS	:	Highly competitive commercial fishery with quality products for the world market
6.	PROJECT COSTS	:	₱ 20 million
7.	IMPLEMENTATION SCHEDULE	:	Phase 1
8.	PROJECT DESCRIPTION	:	

Value-added seafood products have increasing demand in the world market, but the Philippines as a whole and the DIDP Area in particular have not been competitive in marketing these products. The utilization of the valuable aqua-products in the DIDP Area has not been optimized. One reason for this is lack of effective market information and channel on the processing and marketing as well as information on supply and demand situations.

Although the DIDP Areas is noted for its abundant supply of fish resources, fishes of low commercial value have been tapped as raw materials in the past years. In recent years, a few fish businesses are trying to promote some value-added fish products such as smoked boneless milk fish and dried seaweed. Technical and financial supports are essential for the development of such new businesses.

The program has two main component. One is an R & D component to develop value-added fish and seaweed based products through the Davao Gulf R & D consortium (DGRDC). The other is a marketing component to establish marketing channels for fish and seaweed products through market research in the Philippines, BIMP-EAGA, Japan, US, and EU.

The DGRDC will be strengthened by networking the five member colleges to exchange information, coordinate research programs, and conduct collaborative researches. A marine biological station may be established in the southern coast of Davao del Sur or on the Sarrangan island to support innovative fishery practices such as marine ranching.

Project No. EC-19

1.	PROJECT TITLE	:	Mineral Processing Zone (MPZ) Project
2.	LOCATION	:	Davao del Norte, Compostela Valley, Davao Oriental
3.	IMPLEMENTING AGENCIES	:	PAIC alliance or the private sector including cooperatives of mineral processors in cooperation with DENR and LGUs
4.	OBJECTIVES	:	To create a good environment for both mineral processors and community/people
5.	EXPECTED EFFECTS	:	A sound and socially acceptable growth of mineral processing industry Reduced pollution including mercury pollution
6.	PROJECT COSTS	:	₱ 80 million (public investment)/60 ha
7.	IMPLEMENTATION SCHEDULE	:	Phase I : Tagum in Davao del Norte, Monkayo in Compostela Valley, Mati in Davao Oriental Phase 2/3 : Depending on mineral development

8. PROJECT DESCRIPTION :

MPZ is largely classified into two categories: gold processing zone (GPZ) and marble processing zone (MAPZ). Components of the project will be as follows:

- Development of a tract of land for relocation or location of mineral processors;
- Installation of common service facilities such as water supply and wastewater treatment, waste disposal, worker's welfare, and MPZ management office with multi-purpose functions as well as roads, greenery, electricity supply and telecommunications; and
- Specific to gold processing: installation of a new gold processing technology in place of existing amalgamation method and R & D support functions.

This environment-friendly MPZ will be supported by mineral processors with enhanced responsibilities to share the installation of common service facilities for environment protection including reforestation if necessary. Pollution monitoring by MPZ management body will contribute not only to improvement of pollution control, but also to smaller cost than the case that respective processors hire "Pollution Control Officers." Collective location of processors might be conducive to reduction of electricity cost when power is purchased directly from NPC.

It would be ideal for a cooperative or association of mineral processors to develop a MPZ, which may be realized in Tagum and Monkayo. Development by LGU through the PAIC alliance is also viable in and around Mati for a marble processing zone. Otherwise, the private sector will develop MPZ in close cooperation with DENR, LGU and mineral processors. In any case, LGU initiative and intervention might be a key to the successful development of MPZ.

Project No. EC-20

1.	PROJECT TITLE	:	Jewelry Making Industry Development Program
2.	LOCATION	:	Davao del Norte, Compostela Valley, Davao Oriental
3.	IMPLEMENTING AGENCIES	:	PAIC alliance, LGUs or the private sector in cooperation with DOST, DTI, DOT, LGUs, and tourism developers
4.	OBJECTIVES	:	To promote further development of jewelry making industry through inter-industry linkages
5.	EXPECTED EFFECTS	:	Localize/increased value added
			Combined growth of jewelry making, gold processing and tourism industries
			Increase in employment and income
6.	PROJECT COSTS	:	₱ 4 million (public investments)/1.5 ha
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 to Phase 2
8.	PROJECT DESCRIPTION	:	

Gold, and its associated product of silver are the basic metal of jewelry. The DIDP Area, centered on Davao del Norte and Compostela Valley, have some 60 gold processors and three gold buying stations. Two jewelry making training centers have operated in Tagum City. Jewelry making industry has already grown centering on Tagum City. On the other hand, there is a situation that sizable amounts of gold have been exported and processed into jewelry in foreign countries like Singapore.

This program, not directly belonging to mining and quarrying sub-sector, aims at concerted developments of two sub-sectors, jewelry making industry and tourism with the following components:

- Development of jewelry village or estate to accommodate jewelry makers in and around tourism site (Phases 1 to 2);
- Fostering of jewelry designers (starting from Phase 1); and
- Strengthening of market functions on gold/silver through expansion of gold buying station (Phase 2), establishment of central market of gold/silver (Phase 1) in line with the BIMP-EAGA cooperation, and establishment of market information network through Internet.

The jewelry estate/village will benefit jewelry makers in terms of tourists' market generation and will be an attraction of tourism development. Fostering of designers is expected to increase value-added of jewelry. Market functions on gold/silver will contribute to price setting of gold/silver based on market mechanism which sometime benefits jewelry makers, and will promote expansion of export channels of gold/silver beneficial for gold processors.

Project No. EC-20a

1.	PROJECT TITLE	:	Tagum Jewelry Making Center Project
2.	LOCATION	:	Tagum National Trade School (TNTS)
3.	IMPLEMENTING AGENCIES	:	City Government of Tagum in cooperation with TNTS, DOST, DTI, DOT, TESDA, Provincial Government, jewelers association and local chamber of commerce and industry
4.	OBJECTIVES	:	(1) To promote further development of jewelry making industry through inter-industry linkages; (2) To harness jewelry industry as tourism "come-ons" and as an export industry; and (3) To make Tagum City as "jewelry capital" of Mindanao.
5.	EXPECTED EFFECTS	:	Localize/increased value added Combined growth of jewelry making, gold processing and tourism industries Increase in employment and income
6.	PROJECT COSTS	:	₱ 30 million
7.	IMPLEMENTATION SCHEDULE	:	Phase I and II
8.	PROJECT DESCRIPTION	:	

Gold and its associated silver by-product are the basic metals of jewelry making. The DIDP Area, centered in Davao del Norte and Compostela Valley has 60 gold processors and three gold buying stations.

One jewelry training center is already established in Tagum City housed temporarily in one of the classrooms of Tagum National Trade School campus in Apokon, Tagum City, Davao del Norte.

The LGU of Tagum identified jewelry making as one of its strategic industry groups (SIGs) owing to its abundance and availability in the area. Its noble long-term vision is to become the "jewelry capital" of Mindanao.

This program not directly belonging to mining and quarrying sub-sector, aims at concerted development of two sub-sectors, jewelry making industry and tourism with the following components.

- Development of jewelry village or estate to accommodate jewelry makers in and around tourism site Fostering of jewelry designers (starting from Phase I); and
- Strengthening of market functions in gold/silver through expansion of gold buying station (Phase I) in line with the BIMP-EAGA Cooperation, and establishment of market through interment.

The jewelry estate/village will benefit jewelry makers in terms of tourist market generation and will be an attraction of tourism development. Fostering of designers is expected to increase value-added of jewelry. Market functions on gold/silver will contribute to price setting of gold/silver base on market mechanism which sometime benefits jewelry makers and will promote expansion of export channels of gold/silver beneficial for gold processors.

Project No. EC-21

1.	PROJECT TITLE	:	Safety and Sustainable Mining Community Development Program
2.	LOCATION	:	Mt. Diwalwal, Compostela Valley and other mining sites
3.	IMPLEMENTING AGENCIES	:	"Mining Development Foundation" in cooperation with small-scale miners, mining developers, DENR, LGUs, and tourism developers
4.	OBJECTIVES	:	To institutionalize mining development into an established safety and sustainable community as required by law
5.	EXPECTED EFFECTS	:	Enhanced image of mining/gold processing industry
			Improved living environment of mining area
			Restoration and protection of natural environment in mining areas
6.	PROJECT COSTS	:	₱ 324 million (public investments)/18 years
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 to Phase 2
8.	PROJECT DESCRIPTION	:	

This program will be implemented through a holistic approach with the following components:

- Establishment of "People's Mining Council" (PMC to be established during Phase 1) with an open information system and functions described below as an alternative institution for "Provincial Mining Regulatory Board" toward equitable and proper management of mining development;
- Establishment of "Mining Development Foundation" for both activities of PMC and its own activities such as monitoring and reporting mining activities in view of work safety and environmental protection, reforestation, and so on.

A Mining Community Development and Management Plan shall be prepared, consisting of the following:

- Land use plan including residential area, waste disposal site, depleted mining area (which may be used for waste disposal);
- Town planning (housing and infrastructure including facilities for education, health etc.) with safety guard and appropriate regulations including landscaping;
- Environmental protection and restoration plan including reforestation; and
- Long-term development plan including tourism development and livelihood rebuilding even after the mining resources are depleted.

Project No. EC-22

1.	PROJECT TITLE	:	BIMP-EAGA Construction Materials Merchandising Center (CMMC) Project
2.	LOCATION	:	Davao City and Compostela Valley/Davao Oriental (branches)
3.	IMPLEMENTING AGENCIES	:	"Davao Trade Corporation" in cooperation with DTI and DPWH
4.	OBJECTIVES	:	To expand trade of construction materials with BIMP sub-regions and other ASEAN sub-regions
5.	EXPECTED EFFECTS	:	Strengthened BIMP-EAGA linkages Growth of construction and its materials industry Strengthened trade function of Davao City
6.	PROJECT COSTS	:	₱ 46 million (public investments)/30 ha
7.	IMPLEMENTATION SCHEDULE	:	Phase 2
8.	PROJECT DESCRIPTION	:	

The Philippines, particularly the DIDP Area with abundant resource of construction materials is designated to lead the development of construction industry in the context of the BIMP-EAGA cooperation. The Regional Construction Training Center in Mindanao already started operation in Davao City, and trained 41 persons in 1997.

The CMMC project will be implemented wit the following components to expand trade of construction materials with BIMP sub-regions and other ASEAN sub-regions:

- Development of merchandising center to accommodate producers, traders, and processors of construction materials such as stone, pebbles, sand, gravel, marble steel, concrete products, wood/lumber, bamboo etc. some of which may be imported from outside the DIDP Area;
- Establishment of wholesaling and showcase functions of construction materials;
- Installation of other supporting function to test and standardize construction materials in line with "EAGA/Global Standards", including construction standards set by regulators; and
- Establishment of a Davao Trade Corporation (DTC) through a public-private partnership, which not only develops and manages the CMMC, but also undertakes market-match and investment promotion functions.

Buyers can procure any king of qualified construction materials at the CMMC, i.e., a sort of one-stop-shopping. Traders will exchange advanced information on technology as well as business, and thereby expand their business. This is a benefit resulting from synergy effects based on an agglomeration of industries and transaction at the CMMC. The CMMC testing/standardizing center will also promote technology and products development.

The CMMC might have its local branch or sub-station in Compostela Valley abundant in sand and gravel, and Davao Oriental abundant in sand/gravel and pebbles.

Project No. EC-23

1.	PROJECT TITLE	:	Innovation Program MQ (mining and quarrying)
2.	LOCATION	:	Davao City/Davao Oriental
3.	IMPLEMENTING AGENCIES	:	CHED/DENR/DOST/college/university
4.	OBJECTIVES	:	To innovate the mining and quarrying industry including gold processing in the DIDP Area
5.	EXPECTED EFFECTS	:	Sustained growth of the industry Upgrading of college/university Progress of high tech industrialization
6.	PROJECT COSTS	:	₱ 27 million (public investments)/12 years
7.	IMPLEMENTATION SCHEDULE	:	Phase 2 to Phase 3
8.	PROJECT DESCRIPTION	:	

To date, there is no substantial public R & D support for mining and gold processing industry in the DIDP Area. Gold processors expressed the need for government supports for their production technology development, according to the Industrial Questionnaire Survey conducted in June 1998. Also, colleges/universities in the DIDP Area have no course for geology and mine engineering.

Mining and mineral processing technology will be further developed. In the future, almost all mining related works may be mechanized by technologies including remote controlling robots. A new gold processing technology is already commercialized to increase gold recovery and avoid mercury pollution.

This program will be implemented to innovate the mining and quarrying industry in the DIDP Area with the following components.

- Establishment of mining-related courses in college/university in the DIDP Area such as geology and mine engineering, among others;
- Strengthening of public R & D support centering on application of high and advanced technologies to mining and mineral processing industries so that they can be innovated; and
- Strong promotion for strategic location of high tech industry such as electronics that is a main user of rare metals including gold, chromite and nickel, and thereby to pursue a combined development of mineral processing industry and high tech manufacturing.

This program will contribute not only to innovation of mining industry, but also to a foundation formation of industrial development of the DIDP Area toward the year 2016 and onward.

Courses for geology and mine engineering is expected to be established in the State College of Science and Technology, Mati, Davao Oriental or USEP Tagum, Davao del Norte, Public R & D support will be implemented by DOST and/or DENR.

Project No. EC-24

1.	PROJECT TITLE	:	Integrated SMEs IE Development Program
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	PAIC alliance or the private sector including cooperatives in coopration with DTI, DOST and LGUs
4.	OBJECTIVES	:	(1) To promote the growth and development of SMEs through providing IE for their clustering; and (2) To integrate various policy measures and intensive apply them to clustered SMEs.
5.	EXPECTED EFFECTS	:	Viable SMEs as commercial business enterprises Increase in employment and income Creation of new products with Davao specialty
6.	PROJECT COSTS	:	₱ 700 million including standard factory
7.	IMPLEMENTATION SCHEDULE	:	Phase 1 to Phase 2
8.	PROJECT DESCRIPTION	:	

Small and medium enterprises (SMEs) have developed spontaneously throughout the DIDP Area. A sizable number of SMEs are household or livelihood enterprises, and located in urban areas. There is no industrial estate so far to accommodated SMEs in the DIDP Area. Land zoning ordinances might make them difficult to operate their production at existing sites.

According to the Industrial Questionnaire Survey (IQS) with 168 manufacturer respondents conducted by the Study, 89 prioritized to develop IE for small, medium and cottage industries, while 61 and 94 prioritizing integrated industrial clustering and "Davao Brand" products development, respectively.

The program will be implemented with the following components:

(1) To develop IEs to accommodate SMEs centering on those engaged in strategic sub-sectors such as confectionery, fruit processing, GTH/handicraft, pottery/ceramics, jewelry etc;

(2) To build "factory apartment" or standard factory for SMEs to minimize their initial cost;

(3) To install common service facilities for basic processing, prototype fabrication, R & D including design and packaging, incubation, training, marketing, and meeting, if necessary; and

(4) To promote specialization/division of labor, and exchange of information and technology among the locators in order to strengthen marketing capability, and to enhance productivity and competitiveness while focusing on "Davao Brand" products development with local specialty.

SMEs IE will be managed in cooperation with existing laboratories of DOST and trade centers/trade houses of DTI. It is expected to organize cooperatives consisting of potential locators to formulate a development plan of respective IE. In addition, income tax deduction will be given to income derived from selling existing land and facilities in case of relocation of SMEs.

Project No. EC-25

1.	PROJECT TITLE	:	Resource Recycling Estate (RRE) Project
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	PAIC alliance or the private sector including cooperatives in cooperation with DTI, DOST, and LGUs
4.	OBJECTIVES	:	(1) To utilize industrial wastes as one of the local resources; and (2) To form an industrial complex with high productivity.
5.	EXPECTED EFFECTS	:	A solution to environmental problems Creation of new products/technologies Increase in employment and income
6.	PROJECT COSTS	:	₱ 20 million (public investments)
7.	IMPLEMENTATION SCHEDULE	:	Phase 2
8.	PROJECT DESCRIPTION	:	

Treatment and disposal of industrial wastes will entail serious social and environmental problems in the DIDP Area according to the progress of industrialization. Advanced countries like Japan have developed technologies and systems to address such problems in view of environmental protection and utilization of industrial wastes, and also in consideration of limited raw materials. In a near future, recycling and reuse of industrial wastes will become a sort of national security concerns.

Locators in a RRE will be a group of industries with varying nature of operation, but wastes/residues of one industry become raw materials of another, or used in another's system in a substantive manner. A symbiotic relationship among industries and adjacent communities will exist and these companies exchange by-products for use as raw materials instead of raw materials.

Prospective industrial groups in the DIDP Area could be as follows:

(1) Integrated coconut processing industries for cascading use of raw materials (copra, oil, charcoal/activated carbon, and oleochemicals products),

(2) Food processing and livestock complex (meat, corn, soup, organic fertilizer, feeds, livestock, etc.),

(3) Fiber industry complex (fiber, weaving, paper, reinforcement materials, etc. like abaca), and

(4) Wood/furniture complex (lumber, saw dust, chip, composite materials, etc.)

BOI already prepares its incentives to "Industrial Ecosystems" equivalent to the RRE. The RRE project may be implemented in line with industrial modernization and relocation of relevant industries Public R & D support by DOST will be essential for this project.

Project No. EC-26

1.	PROJECT TITLE	:	Industrial Community (IC) Development Project
2.	LOCATION	:	Santa Cruz-Davao del Sur, Tagum City (Madaum)/Panabo-Davao del Norte
3.	IMPLEMENTING AGENCIES	:	Private sector in cooperation with LGUs
4.	OBJECTIVES	:	To attain a balanced development between IE development and urbanization.
5.	EXPECTED EFFECTS	:	Formation of new urban centers
			Creation of attractive industrial and living environments
			Increase in employment and income
6.	PROJECT COSTS	:	₱ 50 million (public investments)/50 ha
7.	IMPLEMENTATION SCHEDULE	:	Phase 2
8.	PROJECT DESCRIPTION	:	

Industrial location in the DIDP Area has been spontaneous resulting in unorderly land use. There are many different kinds of buildings along national roads, which represent lack of a clear concept on town planning.

Recently, LGUs in the DIDP Area enacted their land zoning ordinances toward an orderly urbanization. To ensure and materialize their concept, a combined development of industrial estate (IE) and new town could be recommendable with the following components:

(1) To develop an IE at a tract of land suitable for an orderly urbanization in the DIDP Area; and

(2) To develop a new town with accommodation facility, multi-purpose center, drug store, school, and other livelihood center, at an area close to or within a 5 km radius from the IE.

The project will contribute not only to a planned and orderly urbanization, but also to reduction of investment cost through an intensive and efficient investment in infrastructure development.

Candidate sites are located in Santa Cruz, Davao del Sur which has three IE development projects at planning stage. Panabo and Tagum City in Davao del Norte are already receiving places of spillover from Davao City, and are expected to be export-oriented industrial center/SEZ like the Subic Bay Metropolitan Authority.

Project No. EC-27

1.	PROJECT TITLE	:	"More Like This" (MOLT) Program
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	DTI, DOST in cooperation with CHED
4.	OBJECTIVES	:	(1) To strengthen management capability and entrepreneurship of SMEs; and
			(2) To upgrade technology of SMEs.
5.	EXPECTED EFFECTS	:	Viable SMEs transformed from livelihood business to commercial business enterprises
			Increased successors of SMEs
			Creation of "Student Venture"
			Reduced expenses of DTI/DOST
			Updated education in college/university
6.	PROJECT COSTS	:	₱ 18 million (public investments)/18 years
7.	IMPLEMENTATION SCHEDULE	:	Starting from Phase 1
8.	PROJECT DESCRIPTION	:	

A sizable number of SMEs are household or livelihood enterprises in the DIDP Area. They mostly lack capital, marketing and management capability, and entrepreneurship. Some of them can not utilize public finance facilities due to inability to process required documents. They can produce good quality products, but the quality sometimes varies widely. Even if they have a contract to produce a lot of goods, they can not sometimes deliver the contracted numbers just in time. Also, some of them have no successors.

The DIDP Area has 80,723 college/university students in 1997-1998 school year: 12,208 in technology and engineering course, 25,375 business/commerce/management. They are potential businessmen and engineers.

This program pursues mutual benefits between SMEs and the students, and will be implemented with the following components:

(1) To mobilize the senior qualified students as consultancy service workers such as accounting, document processing for export/loan, and marketing, among others,

(2) To mobilize the senior qualified students in technology/engineering courses as technical extension workers or advisors aside from their compulsory OJT, and

(3) To exempt six months to one year class ordinarily charged to the students.

This program will be implemented by DTI and DOST, both of which can benefit from the program: smaller expenses to the students compared with employed permanent workers and achievement of their mandated tasks. Familiarization of the students with SMEs may bring about "student venture," and SMEs may get their successors. The largest effect could be the capability improvement among concerned people, since they think they have "more like this" with each other through the exchanges.

Project No. EC-28

1.	PROJECT TITLE	:	R & D Expert Development Program
2.	LOCATION	:	DIDP Area
3.	IMPLEMENTING AGENCIES	:	DOST/DTI/CHED
4.	OBJECTIVES	:	To strengthen R & D functions of the public sector toward the globalization and high tech industrialization in the DIDP Area
5.	EXPECTED EFFECTS	:	Effective and substantial supports to local enterprises Upgraded technology of local industries Proper management of public R & D supports
6.	PROJECT COSTS	:	₱ 648 million (public investments)/12 years
7.	IMPLEMENTATION SCHEDULE	:	Phase 2 – Phase 3
8.	PROJECT DESCRIPTION	:	

R & D activities are relatively active in the manufacturing industries in the DIDP Area, centering on coconut processing, food processing, wood/furniture, and GTH. There are at least 65 R & D staff and 35 designers in the Area, according to the Industrial Questionnaire Survey conducted by the Study. Some manufacturers have conducted R & D supported by DTI or DOST, among others.

Efficient R & D promotion is essential toward free trade regime/globalization drive. Subsidy for export promotion will be prohibited. However, public R & D supports are possible. It will be instrument for technical improvement and innovation of industries by capability strengthening of public R & D institutes.

The program will be implemented with the following components:

(1) To foster and increase R & D staff in the DIDP public institutes including colleges/universities, since the public institutes have no R & D staff (researcher and assistant) regarding manufacturing industry and have mostly been oriented to testing, there are a few quality staff in colleges and universities;

(2) To allocate budget for fostering and hiring R & D staff, and use them for in-house R & D and extension works like techno adviser, organizing/leading R & D activities including joint activities between enterprises, academe and public institutes; and

(3) To make R & D activities including government supported ones more efficient with the proper appraisal system led by the fostered R & D staff/experts.

At the initial stage, an emphasis will be placed on agri-industries. Permanent R & D staff rooted in the local society is very important and a navigator for R & D activities closely connected with local needs. Foreign experts may be mobilized for specific joint R & D projects and training local R & D staff.