DOST-ITDI Technologies for Public Good

No.	Technology	Description	Technology Generator	IP Protection	TTBDO / Contact Details
1	Calamansi Concentrate	The process to concentrate natural juice from fresh calamansi fruit to produce a nutritious and shelf-stable product that can be used to produce a variety of tasty and refreshing beverages and desserts.	Maria Elsa Falcor Food Processing Division (02) 837 2071 to 82 loc. 2186 mariaelsafalco@gmail.com	No information provided yet	Nelia Elisa C. Florendo Technological Services Division (02) 837 2071 to 82 loc. 2265/2228 tsd@itdi.gov.ph, nel58ph@yahoo.com
2	Mango Processing (Dried, Juice, Puree, Flakes)	Mango fruit can be processed into different products like dried, juice, puree, and flakes using the different ITDI technologies like Vacuum Fryer, Drum Drying. These technologies help in maintaining the freshness and flavor of fruit/food. It also prolongs its usefulness or shelf life.	Maria Elsa Falco Food Processing Division (02) 837 2071 to 82 loc. 2186 mariaelsafalco@gmail.com	No information provided yet	
3	Natural Vinegar Production (Acetator Technology) from Coconut Water	With the vinegar acetator, the traditional month-long fermentation for vinegar production is dramatically reduced to two (2) weeks, with the promise of a daily harvest. There is a wide array of sugary materials to choose from as starting raw material: coconut sap, pineapple wastes, sugar cane, spent mango syrup, among others. This technology has scaled down the production capacity to sizes appropriated/suited to the takers' requirements.	No information provided yet	No information provided yet	

DOST-FNRI Technologies for Public Good

No.	Technology	Description	Technology Generator	IP Protection	TTBDO / Contact Details
1	Bakery Products with Squash	This favorite baked product is made more nutritious by supplementing it with squash. It can be a perfect snack by children and adult like. Squash puree is added to the traditional ingredients of dough such as yeast, skimmed milk, shortening, sugar, and salt. Two slices (52g) of the loaf bread can help meet the 25% of the recommended nutrient intake for vitamin A and 32% of iron of 7 to 9 year-old child.	Joyce R. Tobias Cecilia S. Quindara	Trade Secret	Business Development Unit DOST-FNRI 837-8113/14 loc. 322 bdutechnologytransfer@gmail.com
2	Squash Canton	Canton noodles with squash are nutritious noodle alternative that will provide nutritional benefits above that of regular canton noodles. Fifty grams squash canton noodles provide 19% energy, 29% protein, and 23% Vitamin A of the Recommended Energy Nutrient Intake (RENI) of 3 to 5 years old male children. It can be cooked similar to that of commercially available canton noodles. Canton noodles are well-accepted noodle products by Filipinos as well as other Asian countries. The high nutritive value, beta carotene content, and good sensory attributes of these varieties are competitive advantages against other commercially available noodles.	Joyce R. Tobias Cecilia S. Quindara	Trade Secret	

DOST-MIRDC Technologies for Public Good

No.	Technology	Description	Technology Generator	IP Protection	TTBDO / Contact Details
1	Abaca "Pinukpok" Rotary Press	A rotary press used as an apparatus for flattening hand-woven abaca fabric. The rotary press is designed to be more effective, efficient and sturdy in flattening abaca hand-woven fabric into "Pinukpok"	Rogelio R. Valenteros Amado R. Jabrica Tel. No. (02) 8370431 to 38 local 401, Email address: mirdc@mirdc.dost.gov.ph	IP Protected	Ma. Girlie M. Millo Supervising SRS TABDS/TDD, MIRDC (02) 8370431 to 38 local 230 tabds@mirdc.dost.gov.ph
2	Baling Machine for Compacting Natural Fibers	A lever-type machine, which can be operated by a single operator, can produce 6 bales per hour with 28-kg weight per baling depending on the force applied. It is low cost, lightweight, easy to operate, mobile and can be operated on site. It has a horizontal stabilizer to keep the machine from tilting during operation.	Jose B. Ferrer Francisco C. Dime Tel. No. (02) 8370431 to 38 local 401, Email address: mirdc@mirdc.dost.gov.ph	IP Protected	
3	Coco Log Extrusion Machine	The extrusion machine is used to compress the coco coir to be placed inside a sack like container forming a coco log for soil erosion control.	Arthur Lucas D. Cruz Francisco C. Dime Tel. No. (02) 8370431 to 38 local 401, Email address: mirdc@mirdc.dost.gov.ph	IP Protected	
4	Decorticating Machine for Separating Coco Coir, Peat and Dust from Coconut Husk	A machine used to separate the components of coconut husks into two: the fiber and the dust, by passing it through continuous set of blunt-tipped blades. It can processes about 5,000 husks/day.	Francisco C. Dime Jose B. Ferrer Jonathan Q. Puerto Tel. No. (02) 8370431 to 38 local 401, Email address: mirdc@mirdc.dost.gov.ph	IP Protected	

DOST-PTRI Technologies for Public Good

No.	Technology	Description	Technology Generator	IP Protection	TTBDO / Contact Details
1	Geo Handloom Weaving Machine	The Geo Handloom Machine has a new and sleek design using metal and wood equipped with warping beam system for efficient weaving of Natural Textile Fibers in producing geotextile products such as made from abaca, banana, pineapple and other indigenous fibers.	Engr. Daniel J. Lavin Supervising SRS	No information provided yet	Evangeline Flor P. Manalang Angelito T. Uldo Office of the Director – TIPS 8837 1338 / 8837 2071 loc. 2361 epmanalang@gmail.com angelu03@gmail.com
2	Hand spinning Machine	Hand spinning follows the carding process. It is the art of twisting fibers into a continuous thread by using a spinning wheel/machine. The thread is spun thick or thin, plied or un-plied, and can later be dyed or left natural. Handspun yarn is used for knitting and weaving.	No information provided yet	No information provided yet	
3	Indigo Dye Powder Production	No information provided yet	No information provided yet	No information provided yet	
4	Indigo Dyeing Technology	No information provided yet	No information provided yet	No information provided yet	
5	Miniature Integrated Natural Fiber Extraction and Degumming Machine	The utility model is a degumming and dyeing apparatus that is downscaled without eliminating the degumming parameters of pressure, volume and temperature in the solution in order to adapt to the volume requirement of the micro and small scale enterprises. Holds and processes a maximum of 8 kg of natural fibers	No information provided yet	No information provided yet	
6	Miniaturized Manually-Operated Carding and Fiber Opening Machine	This machine can be used in opening and carding of pure and blended natural fibers prior to hand spinning which is suitable for cottage type industry. The machine is equipped with three variable sizes of wooden based drums covered with metallic card clothing. The action of the drums is synchronized using a chain drive mechanism with the use of a wooden crank. The fibers are fed manually through a metal sheet onto the rotating drums where the fiber strands are carefully separated and cleaned. The machine's capacity is 0.3kg/hr	No information provided yet	No information provided yet	
7	Natural Dyeing Technologies	No information provided yet	No information provided yet	No information provided yet	
8	Natural Fiber Twining/Twisting Machine	The twining machine can produce twisted materials from indigenous fibers such as abaca, water hyacinth, and coco coir, among others with an average diameter of 5mm. The twined materials can be used to produce geotextiles fabrics, ropes, novelty products and other handicraft items such as bags, carpets, slippers, etc. It is equipped with a traversing motion mechanism to evenly distribute the winding of the twined or twisted materials onto the spool.	Engr. Daniel J. Lavin Supervising SRS	No information provided yet	

9	Silkscreen Natural Dye Printing	These are various printing paste formulations using natural dye powders and crude extract from Talisay and indigo leaves, annatto seeds, and mahogany barks for silkscreen printing applications. These developed natural dye printing pastes are suitable for silkscreen printing of various textiles materials like cotton, abaca, silk, pineapple-silk and other natural fiber based fabrics. Printing paste consists mainly of dye powder as colorant with the addition of an organic thickener in an aqueous medium.	No information provided yet	No information provided yet	

DOST-PCAARRD Technologies for Public Good

No.	Technology	Description	Technology Generator	IP Protection	TTBDO / Contact Details
1	1. Use of EVIARC sweet jackfruit variety 2. Pruning and thinning of jackfruit 3. Fertilizer management in jackfruit 4. Bagging of jackfruit	EVIARC sweet is recommended for processing but could be used for fresh fruit because of its high sugar content or total soluble solids. This variety has been promoted by the DA-8 for commercial scale production because it is well adapted to the region. It is also the preferred variety by the processors due to its thick aril and high edible portion of 42.58%, which would give bigger profit margins compared to other jackfruit varieties, and its golden yellow flesh has moderate latex. The technology also includes proper fertilizer application, pruning, bagging, pest management, fruit thinning, harvesting, grading and sorting, and packaging.	Ms. Hazel Taganas Visayas State University	No information provided yet	No information provided yet
2	1. Appropriate varieties for onion production 2. Organic fertilizers and microbials for onion production 3. Use of vermicast in onion seedling production	The technologies include the production of appropriate varieties using Super Pinoy (red variety) and Yellow granex (white variety) and use of organic fertilizers (solid and foliar) and microbials (*Trichoderma* spp from carabao manure as biofertilizer) and other organic farming practices for onion such as the use of vermicast in seedling production, biopesticide and supplementation of organic liquid fertilizer.	Dr. Fe Porciuncula Central Luzon State University	No information provided yet	CLSU-IP-TBM irwin_salapare@yahoo.com 0997-987-7991
3	1. Coral Nursery Units (CNUs) to enhance asexual reproduction 2. Reef restoration through direct transplantation	Coral transplantation is the attachment through transplantation of dislodged coral fragments or corals of opportunity (COPs) back to the natural substrate by using nails, cable tie and marine epoxy/putty. On the other hand, a coral nursery unit is a 3m x 1m x 0.5m metal frame with PE ropes that is submerged underwater. Dislodged coral fragments or COPs that are not yet healthy and big enough for transplantation are tied in the nurseries and are reared for 2-3 months after which they will be transplanted back to natural substrates.	Prof. Concepcion Portugal Mindanao State University – Gen San	No information provided yet	No information provided yet
4	Artificial Insemination for Goat	Artificial insemination is one of the best technologies used in genetic improvement for all livestock that includes specific technological interventions such as semen collection, evaluation and storage (both in liquid and frozen state) and field activities such as heat detection and actual insemination. It is among the best technologies used in genetic improvement for all livestock.	Ms. Aubrey Balbin Isabela State University	No information provided yet	ISU-IP-TBM Officer niloepadilla0926@gmail.com 0916-322-5967

5	Bag cultivation technology for oyster mushroom production	Substrates consists of locally available materials such as rice straw, rice bran and sawdust which are bagged and sterilized. The fruiting bags are the ones inoculated with the mushroom spawns. These undergo incubation for 30-45 days before transferred to the growing environment for the production of mushroom fruit bodies.	Dr. Maritess R. Raboy University of Northern Philippines	No information provided yet	No information provided yet
6	Bamboos for Reforestation and Riverbanks Stabilization	In upland cogonal areas where kaingin is practiced, bamboos are more suitable for reforestation than forest tree seedlings. Seedlings become stunted because of the infertile soil and these compete with the hostile cogon. Bamboos, being of the grass family, can grow well in these areas and overcome the cogon. Bamboo farmers used to plant 4-5-node bamboo culms, which have low survival rate. To ensure survival without difficulty, bamboo propagules of one-node culms have to be propagated and cared for in a nursery for a year before setting these out in the field.	Prof. Omor Pendaliday Mindanao State University - Maguindanao	No information provided yet	No information provided yet
7	Betel Nut Dewormer for Native Chicken	The invention relates to a dewormer composed mainly of powdered betel nut. The composition is an economical alternative for eliminating, reducing and controlling helminthes, specifically roundworms in chickens, and can complement the commercially manufactured drugs against internal parasites of poultry.	Dr. Bede Ozaraga Capiz State University	No information provided yet	CapSU-IP-TBM Office
8	Biopesticide for organic coffee production	Biological Agents for the Management of Major Insect Pests and Diseases of Arabica Coffee for Organic Production	Dr. Teresita K. Mangili Dr. Sonwright B. Maddul Benguet State University	No information provided yet	BSU-IP-TBM Office
9	Cassava foliage as feed supplement for dairy buffaloes	Cassava foliage has been proven to be a quality feed for buffaloes with more than 20% protein content; 67% dry matter digestibility and potential average daily gain of 1 kg in growing animals. The potential of CSF feeding in increasing milk yield has been showcased in a STBF in Bohol from an average of 2 liters to 5.62 liters per day with proper feeding management.	Mr. Francisco G. Gabunada Philippine Carabao Center	No information provided yet	No information provided yet
10	Coagulation techniques for cup lumps of Rubber	Use of formic acid and the proper dilution procedure for cup lumps of rubber to increase production of quality cup lumps.	Dr. Ramon Luza JRMSU	No information provided yet	No information provided yet
11	Establishment and management of bamboo stands	Plantation establishment and maintenance of a given species of bamboo with proper layout at 7 x 7 m spacing in carefully selected sites, considering soil condition, irrigation, temperature, altitude, etc.	Dr. Charli Batin Mariano Marcos State University	No information provided yet	MMSU IP-TBM Office
12	Establishment of cacao nursery and bud wood garden	The 100 sq.m. nursery set up has a total capacity of 1,000 QPMs nurtured for 10-12 months. Nursery practices include timely irrigation, and fertilization. The bud wood garden, complementing the nursery, is about 5,000 sq.m. and can produce 50,000 scions per year after the first year.	Dr. Felisicimo Calungsod DOSCST	No information provided yet	No information provided yet

13	Ethnobotanical Dewormer for Native Chicken	This model presents a composition for an ethnobotanical dewormer for native chicken using the powder forms of mature seeds of betel nut (Areca catechu) and ipil-ipil (*Leucaena lecocephala*) as main ingredients. These plants contain constituents that serve as cheap sources of antihelmintics against internal parasitism. Internal parasitism in native chicken can cause severe diarrhea and high mortality. The formulation can be used for the treatment and control of roundworms, including common large roundworms of native chicken.	Dr. Bede Ozaraga Capiz State University	No information provided yet	CapSU-IP-TBM Office
14	Flushing Dairy buffaloes	Flushing of newly calved buffaloes and use of milk replacer to calves was found to be profitable and increases milk yield from 3.5 to 4.6 liters based on the recently concluded S&T Based Farm (STBF) implemented by PCC at UPLB. It also increases conception rate from 30 to 45% and shortens service period and calving interval from 22 months to 16 to 18 months. · Flushing by daily supplementation with 4 kg of concentrate mix (TDN = 65% and CP =15%) and mineral lick from one month before calving to 2 months after calving· Continued daily supplementation with 1-2 kg concentrate mix or 15-20 kg of cut herbage from feed garden after flushing.	Dr. Thelma Saludes Philippine Carabao Center	No information provided yet	No information provided yet
15	Forage chopper for silage production for dairy buffaloes	The appropriate age of corn at harvest is between 75 days and 80 days or when the ear's seeds had about 2/3 milk-line. Corn plants including the ears are very good ensiling materials because of its high buffering capacity and high soluble carbohydrates. The stem and the leaves of the corn plant serve as the "rice" while the ears serve as the "viand" for the buffaloes. These raw materials are processed in the forage chopper. As in the grass silage, the resulting corn silage are packed in polyethylene sack with a capacity of 60 kg or 1 ton. Likewise, the newly ensiled materials can be stored for about one month before marketing. The average cost of producing a kilogram of corn silage ranges from P2.28 to P2.91 and can be sold at P3.50/kg (pick up price), almost 54% mark-up. With an average silage production of 27MT/Ha, the average net income amounted to P33,330/ha, three-fold higher compared to P10,000/ha net income from corn seed production.	Dr. Eric Palacpac Philippine Carabao Center	No information provided yet	No information provided yet
16	Forage production for goat	Feeding intervention for goat using improved forages such as *Leaucaena leucocephala* (Ipil-ipil), *Gliricidia sepium* (Kakawate) *Flemingia macrophylla* (Flemingia), *Desmodium cineria* (Rensonii) and *Indigofera zollengiriana* (Indigofera).	Dr. Edgar Orden Central Luzon State University	No information provided yet	CLSU-IP-TBM irwin_salapare@yahoo.com 0997-987-7991
17	Fusarium Wilt-Resistant Giant Cavendish Banana Tissue Culture Variant (GCTCV) Somaclones	Technologies found effective in managing Fusarium Wilt caused by *Fusarium oxysporum* F. sp. Cubense (Foc) in Cavendish Bananas include the use of resistant varieties from Taiwan were developed through somaclonal variation, and the use of microbial agents.	Dr. Lourdes Generalao Dr. Lorna Heradura USEP/BPI-DNCRDC	No information provided yet	USeP-IP-TBM Office filmann.simpao@usep.edu.ph 0933-3266-173

18	Good Agricultural Practices (GAP) on Lakatan Banana production	The technology involves the use of Good Agricultural Practices for Lakatan Banana production such as the use of disease-free tissue-cultured Lakatan banana planting materials, proper land preparation, fertilizer application, water management, sanitation, desuckering, debudding, propping, bagging, harvest and postharvest management, and dehanding.	Dr. Edna Vida Cavite State University	No information provided yet	No information provided yet
19	Halal Goat production protocol	The technology sets the standards and protocol for authentic halal goat production and marketing. To ensure the availability of authentic halal goat and goat-based products in the markets of Mindanao and promote the production of authentic halal goats and goat-based products that protocols were established. These protocols include: 1. Strategic grazing where a Muslim herdsman is employed to graze goats in "clean pastures" with lush vegetation; 2. Halal goat house located in non-waterlogged area, far from haram facilities such as piggery farms, canals, toilets, and factories; and with adequate floor space of 1-1.5m2/hd to conform to Zahiba principle of not confining animals in tight spaces; 3 breeding management where artificial insemination is acceptable provided the doe must have experienced natural mating at least once in her productive life; 4. Keeping the goat intact (dehorning and castration prohibited) if to be sacrificed during Islamic rites or during Qurban; 5. Use of drugs (antibiotics and dewormers) provided that ingredients are from halal sources and that a withdrawal period or cleansing of at least 7 days prior to slaughter is strictly followed; 6. Post-production processes that embody science along with cleanliness, purification, animal welfare and oneness with Allah; and 8. Tests for detecting haram at various production and post-production stages.	Dr. Ruby S. Hechanova Sultan Kudarat State University	No information provided yet	No information provided yet
20	Harvesting of coffee	Continuous harvesting begins when berries start to fully ripen. Only the shiny red berries are to be intentionally harvested by handpicking, leaving the immature ones to continue growing.	Dr. Teresita K. Mangili Dr. Sonwright B. Maddul Benguet State University	No information provided yet	BSU-IP-TBM Office
21	Integrated Crop Management (ICM) and Postharvest Quality Management (PQM) for Mango Production	Integrated Crop Management (ICM) in mango is a method of mango farming that balances the requirements of running a profitable business with responsibility and sensitivity to the environment, food safety and worker's welfare. It involves the following pruning, nutrition management, water management, paclobutrazol application, flower induction, and pest and disease management. Post-harvest Quality Management (PQM)/Handling involves fruit handling, trimming and delatexing, sorting and grading, postharvest disease management, and packing.	Dr. Leon O. Namuco (ICM) Dr. Elda B. Esguerra (PQM) UP Los Baños	No information provided yet	No information provided yet

22	Ipil-ipil Dewormer for Native Chicken	The invention relates to a dewormer composed mainly of powdered Ipil-ipil. The composition is an economical alternative for eliminating, reducing and controlling helminthes, specifically roundworms in chickens, and can complement the commercially manufactured drugs against internal parasites of poultry.	Dr. Bede Ozaraga Capiz State University	No information provided yet	CapSU-IP-TBM Office
23	Mango fruit picker	The mechanical mango picker is a modified version with additional blades placed strategically to effectively pull and cut the mangoes and reduce fruit damage during harvesting and decreasing the fruits that are bruised, compressed/bumped, and latex-burned without necessarily reducing picking capacity.	Dr. Benhur A. Rafosala University of Southeastern Philippines	No information provided yet	USeP-IP-TBM Office filmann.simpao@usep.edu.ph
24	Mango power sprayer	The mango power sprayer nozzle is an enhanced sprayer that aims to improve the poor uniformity of distribution and spray deposition of existing sprayer, reduce the volume of spray solution losses due to run-off and drift, and increase spraying capacity. It consists of hydraulic nozzles and expandable metal lance. The prototype achieved around 398 li/ha (100 trees)of chemical (solution) in savings.	Dr. Benhur A. Rafosala University of Southeastern Philippines	No information provided yet	USeP-IP-TBM Office filmann.simpao@usep.edu.ph
25	Mangrove crab hatchery-nursery	The mangrove crab hatchery-nursery technology includes the [1] refined larval rearing technology designed to reduce the application of natural foods and prophylactics; and [2] enhanced protocols for the production of hatchery-reared crab juveniles or crablets in the nursery phase through the application of efficient feeding schemes and strategies to reduce the occurrence of cannibalism.	Dr. Emilia Quinitio Southeast Asian Fisheries Development Center	No information provided yet	No information provided yet
26	Mass Rearing and Dispersal of Parasitoid *Comperiella calauanica* as Biocontrol for the Coconut Scale Insect (CSI) *Aspidiotus rigidus*	The adult female *Comperiella calauanica* is used as biological control for CSI *Aspidiotus rigidus* through mass rearing inside a net cage with temperature of 25-260C and partial shading from natural light for 8 hours. The new Comperiella adults are then dispersed among CSI-infested coconut trees in the field.	Dr. Rosemarie Josue MSU-Maguindanao	No information provided yet	No information provided yet
27	Mass Rearing and Dispersal of Predatory Beetles as Biocontrol for the Coconut Scale Insect (CSI*) Aspidiotus destructor* and *Aspidiotus excisus*	Three predatory beetles (*Telsimia ephippiger, Telsimia nitida, Cybo cephalus* sp.) are used as biological control for CSI. The predatory beetles are mass reared by infesting squash (Suprema variety) through wrapping method or sandwich method. The CSI-infested fruits are incubated and predators are collected after 25-30 days and dispersed in CSI-infected trees.	Dr. Rosemarie Josue MSU-Maguindanao	No information provided yet	No information provided yet

28	Mass rearing and dispersal of predatory earwig *Chelisocher morio* (Fabr.) (*Chelisochidae, Dermaptera*) as biological control for coconut scale insects (CSI)	The black earwig is a predator previously evaluated and found effective against CBM and CLB in the Philippines. The predator is mass reared in sleeve cages and zipper-locked big plastic cages and released in the field at 10 predators per palm tree.	Dr. Marcela Navasero UP Los Baños – National Crop Protection Center	No information provided yet	No information provided yet
29	Milk replacer for Dairy buffalo calves	Milk replacer is a powdered milk which when mixed with water resembles the nutritive composition of cow's milk. If farmers will use milk replacer and sell their raw carabao's milk, they would gain additional income of P30/liter. A liter of milk replacer only costs P20 compared to P50/liter of raw carabao's milk. Calves shall be given 2 liters in the morning and 2 liters in the afternoon every day.	Dr. Thelma Saludes Philippine Carabao Center	No information provided yet	No information provided yet
30	Moringa supplementation for Dairy Buffalo	Moringa as livestock feed has been explored due to its high nutritive value, high dry matter yield, 17 to 26% protein content and high in beta carotene, iron, potassium. Its galactogenic property is found to stimulate milk production. The amount of fresh Moringa supplement to dairy animal shall be at least 15% of dry matter intake and shall commence at two weeks before calving to 120 days after calving. Moringa forage should be offered after milking, to avoid transfer of smell or abnormal taste. Slowly introduce the Moringa into the diet over a period of 10 days, to avoid indigestion or diarrhea. Each day, slightly increase the ratio of Moringa until the full amount is given on the 10th day.	Dr. Thelma Saludes Philippine Carabao Center	No information provided yet	No information provided yet
31	Native Pig	The technology is being developed to match the genetic characteristics of the native pig. This would eventually provide the farmer a pig breeding stock that is true to type complemented with feeds and management practices.	Dr. Arnulfo Monleon ESSU (lead); Partner agencies: BSU, ISU, KSU, MSC, NSPRDC-BAI, NVSU, UPLB	No information provided yet	No information provided yet
32	Net modules for Gracilaria production	The module that improves the production and yield of Gracilaria consists of the following: Polyethylene net with #12 mesh size, polyethylene rope, oyster shells and twine. The polyethylene net to be used has ½ mesh size and cut into 20 centimeters by ten meters. The long axis is sewn together to enclose oyster shells. Series of these nets are then brought to the culture area and are anchored with stakes at both ends. Along the nets are several stakes to keep the net above the seabed. Suitable sites must have at least 20 centimeters of water left at low tide for this proposed methodology. When the nets are already fixed, insertion of mature fronds or portion of the plants follows.	Dr. Jinnie R. Mamhot Don Mariano Marcos Memorial State University	No information provided yet	No information provided yet

33	Nursery establishment for bamboo	The farmer-friendly set up is made up of 10 rearing sheds of 1x10m area with a total capacity of 1,000 QPMs nurtured for 10-12 months. Nursery practices include timely irrigation, fertilization, and sorting.	For. Conrado Marquez Department of Environment and Natural Resources - 06	No information provided yet	No information provided yet
34	One-node cutting technology for bamboo production	Preparation of quality planting materials by selecting healthy 1-2-year-old culms cut from the base, then further cutting each culm such that each cutting contains a node with a healthy branch or bud. Usually the length of the internode below the node is 8 cm, and 16-20 cm above it.	Dr. Charli Batin Mariano Marcos State University	No information provided yet	MMSU IP-TBM Office
35	Organic Fertilization of coffee	Application of organic fertilizer or manure with the following rates: Year 2 - 0.7 kg/tree; Year 3 - 1 kg/tree Year 4 - 2 kg/tree and Year 5 onwards - 2.5 kg/tree.	Dr. Teresita K. Mangili Dr. Sonwright B. Maddul Benguet State University	No information provided yet	BSU-IP-TBM Office
36	Organic fertilizers for Coffee production	These are formulated solid and liquid organic fertilizers made from readily available materials found in organic Arabica coffee production areas in Benguet. These are applied to Arabica coffee trees to provide continuous supply of nutrients at the critical stages of the Arabica coffee to improve yield and bean quality.	Dr. Teresita K. Mangili Dr. Sonwright B. Maddul Benguet State University	No information provided yet	BSU-IP-TBM Office
37	Oyster mushroom production	The production of mushroom fruit bodies may start one week after the inoculated mushroom spawns are transferred to the growing environment or production area.	Dr. Maritess R. Raboy University of Northern Philippines	No information provided yet	No information provided yet
38	Papaya and Betel Nut Dewormer for Native Chicken	The invention relates to a dewormer composed mainly of powdered papaya and betel nut. The composition is an economical alternative for eliminating, reducing and controlling helminthes, specifically roundworms in chickens, and can complement the commercially manufactured drugs against internal parasites of poultry.	Dr. Bede Ozaraga Capiz State University	No information provided yet	CapSU-IP-TBM Office
39	Papaya and Ipil-ipil Dewormer for Native Chicken	The invention relates to a dewormer composed mainly of powdered papaya and Ipil-ipil. The composition is an economical alternative for eliminating, reducing and controlling helminthes, specifically roundworms in chickens, and can complement the commercially manufactured drugs against internal parasites of poultry.	Dr. Bede Ozaraga Capiz State University	No information provided yet	CapSU-IP-TBM Office
40	Papaya Seeds Dewormer for Native Chicken	The invention relates to a dewormer composed mainly of powdered papaya seeds. The composition is an economical alternative for eliminating, reducing and controlling helminthes, specifically roundworms in chickens, and can complement the commercially manufactured drugs against internal parasites of poultry.	Dr. Bede Ozaraga Capiz State University	No information provided yet	CapSU-IP-TBM Office

41	Pinoy Longline for Mussel Production	The Pinoy longline is a modified and cheaper version of the longline culture system used by New Zealand for producing high-quality mussel. The method is suitable for deeper waters and may be used to replace the stake method which causes sedimentation in coastal areas.	Dr. Carlos C. Baylon Mr. Renato C. Diocton UPV/SSU/CAPSU	No information provided yet	No information provided yet
42	POPEYE Technology for bamboo production	The technology relates to the controlled management of the shoots allowed to mature, so that the number of Poles Per Year to be harvested annually is maintained ----- usually 4-4-4-4, 6-6-6-6 or 8-8-8.	Dr. Charli Batin Mariano Marcos State University	No information provided yet	MMSU IP-TBM Office
43	Production of Darag Native Chicken	Native chicken is an important livestock resource for rural backyard farmers as it is a primary source of eggs and meat providing high quality protein. Darag native chicken is a local strain native to Western Visayas. Its production could be an additional source of income for Filipinos. Thus, the proper production technologies for growing native chickens was developed. The technology involves reproduction and hatchery management, production of improved day-old and hardened chicks, free-range production system, slaughtering, marketing and product development.	Dr. Lulu Loyola Western Visayas State University	No information provided yet	No information provided yet
44	Pruning coffee	Done once a year after the last harvest; All dead, diseased and infested twigs and branches were removed using pruning shear. This is to prevent the spread of diseases and infestation by insect pests. Pruning is also done to enhance productivity, facilitate harvesting and other cultural operations. Pruning is done before flowering and just after harvest.	Dr. Teresita K. Mangili Dr. Sonwright B. Maddul Benguet State University	No information provided yet	BSU-IP-TBM Office
45	Pure Culture and Spawn Production for mushroom	In order to have mushroom spawns, spores (pure culture) are inoculated in grain substrates such as corn, sorghum, barley, rice grains, and others which requires aseptic technique so as not to contaminate the culture.	Dr. Maritess R. Raboy University of Northern Philippines	No information provided yet	No information provided yet
46	Radiation-Modified Carrageenan as growth promoter and inducers of resistance against major pests and diseases of rice, mungbean, and peanut	Radiation-Modified Carrageenan as growth promoter and inducers of resistance against major pests and diseases of rice, mungbean, and Peanut. Carrageenan are hydrophilic polymers that comprise the main structural polysaccharides of numerous species, e.g. *Eucheuma, Chondrus, Gigartina, Fucellaria*. Radiation-modified carrageenan elicit various kinds of biological and physiological activities, including promotion of plant growth, seed germination, shoot elongation, root growth, flower production, suppression of heavy metal stress, and anti-viral and anti-microbiological activities.	Dr. Lucille Abad	No information provided yet	No information provided yet
47	Rejuvenation of coffee	Cutting of vertical stems of old coffee trees to induce growth of new sprouts.	Dr. Teresita K. Mangili Dr. Sonwright B. Maddul Benguet State University	No information provided yet	BSU-IP-TBM Office

48	Rejuvenation or rehabilitation of unmanaged bamboo clumps	The technology involves three major activities: 1) removal of surrounding unwanted vegetation and spines (if any) one meter from the ground; 2) thinning the clump to decongest and allow aeration; and 3) maintenance, composting & protection to revert the stands to their optimum productive state.	For. Conrado Marquez Department of Environment and Natural Resources - 06	No information provided yet	No information provided yet
49	Rubber tapping procedure	Proper tapping includes: the appropriate selection of rubber trees for harvesting, the correct time of harvest, the step-by-step techniques, the use of appropriate gadgets/tools, the collection procedures & pointers, and other considerations. Proper rubber tapping procedure avoids bark wounding and diseases in rubber plants.	Dr. Ramon Luza Jose Rizal Memorial state University	No information provided yet	No information provided yet
50	Soft-shell crab production	Soft-shell crabs are mud crabs or "alimango" (Scylla spp.) that have molted or shed their hard outer shells in preparation for growth. Newly molted crabs are kept in aerated freshwater to prevent hardening of shell. After one hour, the soft-shelled crabs are sorted and packed in plastic food containers for freezing.	Dr. Emilia Quinitio Southeast Asian Fisheries Development Center	No information provided yet	No information provided yet
51	Sorting method in Shrimp production	There are two purposes for sorting ulang: (1) to segregate the small (shorter) from the bigger stock in separate ponds so that the small ulang can utilize enough feeds, space, and nutrients needed for growth; and (2) to have an almost uniform size of ulang during harvest. During sorting, partial harvest of bigger ulang can be done and marketed earlier. In doing so, the farmers can generate funds to purchase feeds, and provide more space for the smaller stocks to attain marketable size. The sorting will be done at night to prevent stress and mortality.	Ms. Emiliana Casbadillo Bureau of Fisheries and Aquatic Resources	No information provided yet	No information provided yet
52	Urea-Treated Rice Straw (UTRS) for dairy buffaloes	Rice straw alone is a poor quality roughage but when treated with the right amount of urea solution, its crude protein content will increase from 4 to 7% and digestibility and palatability will be enhanced. In effect, when buffaloes receive proper nutrition, you can expect quality and high milk yield. The recommended UTRS silage mixture includes 100 kg of rice straw, 2 kg urea, 93 kg water and 5 kg molasses.	Dr. Daniel L. Aquino UP Los Baños	No information provided yet	UPLB-TTBDO (049) 501-4756
53	Use of BioGroe™ technology for selected vegetables, rice and corn	BioGroe™ developed and packaged in 100 gram packs used to effectively produce crops like corn, rice, and high value crops through the organic way or lesser dependence on chemical fertilizers. It is a solid based microbial plant growth promoter containing plant growth promoting bacteria (PGPB). PGPB are root associated bacteria which enhances root growth by producing plant hormones and providing nutrients in soluble form. PGPB protects plant surfaces from colonization by pathogenic microbes through direct competitive effects and production of antimicrobial compounds.	Dr. Ronilo Violanta UP Los Baños	No information provided yet	UPLB-TTBDO (049) 501-4756

54	Use of BSU Growers compost	The BSU Growers compost was developed from the PCAARRD-funded Organic Vegetables R&D Program. The raw materials used for the production of BSU organic fertilizer are dried chicken manure, sawdust or coco sawdust, wild sunflower, and Trichoderma.	Dr. Carlito Laurean Benguet State University	No information provided yet	BSU-IP-TBM Office
55	Use of BSU-designed greenhouse	The BSU-designed greenhouse has a dimension of 12m x 4m x 2.5 m (LWH) which is used to protect vegetables against the impact of heavy rainfall.	Dr. Carlito Laurean Benguet State University	No information provided yet	BSU-IP-TBM Office
56	Use of EXCEL Tilapia strains in Tilapia production	The ExCEL is a derived strain from GIFT which means Excellent strain that has Competitive advantage for Entrepreneurial Livelihood projects (ExCEL). This breed of tilapia have resulted to a superior breed for culture in normal environment giving an advantage of 38.12g in growth and 10% increase in survival than the other improved commercial strains of *O. niloticus.*	Dr. Rina Velasco Central Luzon State University	No information provided yet	CLSU-IP-TBM irwin_salapare@yahoo.com 0997-987-7991
57	Use of FaST (Freshwater Aquaculture Center Selected Tilapia) Lines in Tilapia production	The FaST (a.k.a. IDRC) genetic material was developed from 1986 to 1996 as an International Development Research Center (IDRC) supported tilapia project at the Freshwater Aquaculture Center of the Central Luzon State University. This strain came from a base population of four-strain group namely Israel, Singapore, Taiwan and Philippine Nile tilapia strain, a product of 12 generations of selection of best individuals within a family. To date, the FaST lines are now on its 31st generation of selection. The FaST was developed using a within family selection with rotational mating scheme. Its response to selection was estimated at 18% compared to the previous generation of selection (Bolivar and Newkirk, 2002).	Dr. Tereso Abella Central Luzon State University	No information provided yet	CLSU-IP-TBM irwin_salapare@yahoo.com 0997-987-7991
58	Use of Trichoderma Microbial Inoculant on fruit trees	Use of Trichoderma microbial inoculant as seedling transplant to ensure higher survival rate and establishment of tree crops. The plastic bag of the seedling will be carefully removed and TMI powder will be dusted around the potting medium. In addition, the bottom layer will be immersed in TMI slurry. The Trichoderma will be introduced into the root zone of the seedling without disturbing the roots of the seedlings. One cubic foot holes will be dug on designated areas and ripe compost thoroughly mixed with TMI will be added to half-full of the hole before the TMI-laced cacao seedling will be planted. TMI will protect the seedlings from soil-borne pathogens and will enhance growth of the seedlings.	Dr. Virgina Cuevas UP Los Baños	No information provided yet	UPLB-TTBDO (049) 501-4756
59	Wet Processing of coffee	Berries are depulped within 24 hours after picking as any delay can cause heating through fermentation and will spoil the flavor. It involves the proper floatation process, pulping, fermentation and washing, drying, dehulling, and grading & sorting.	Dr. Teresita K. Mangili Dr. Sonwright B. Maddul Benguet State University	No information provided yet	BSU-IP-TBM Office

DOST-PCIEERD Technologies for Public Good

No.	Technology	Description	Technology Generator	IP Protection	TTBDO / Contact Details
1	SENSLOPE	The SENSLOPE research project involves the development of more cost-effective conventional instrumentation for landslide monitoring and the development of a novel approach utilizing low-power wireless sensor networks (WSN) and the necessary software algorithms for networking.	Dr. Joel Joseph Marciano EEEI – UPD/DOST-ASTI	No information provided yet	DOST-ASTI
2	PHIL-LIDAR	No information provided yet	No information provided yet	No information provided yet	No information provided yet
3	DREAM	No information provided yet	No information provided yet	No information provided yet	No information provided yet
4	Coco-fiber Geotextile	No information provided yet	No information provided yet	No information provided yet	No information provided yet
5	Rain Rate Estimation	No information provided yet	No information provided yet	No information provided yet	No information provided yet
6	Pico-hydro System	No information provided yet	No information provided yet	No information provided yet	No information provided yet
7	Tsunami Warning System	Instead of using expensive commercial tsunami sensors such as acoustic, deep water pressure sensors and buoys, the system will make use of simple and inexpensive wet and dry sensors which will be locally fabricated. This will ensure low maintenance cost and long term sustainability of the warning system.	Angelito G. Lanuza Gerwin P. Guba DOST-ASTI	No information provided yet	DOST-ASTI
8	Trash Rake	No information provided yet	No information provided yet	No information provided yet	No information provided yet
9	MetBuoy	No information provided yet	No information provided yet	No information provided yet	No information provided yet
10	Flood Sensor	No information provided yet	No information provided yet	No information provided yet	No information provided yet
11	DYNASLOPE	No information provided yet	No information provided yet	No information provided yet	No information provided yet
12	COARE	No information provided yet	No information provided yet	No information provided yet	No information provided yet
13	Rainwater Collection System	No information provided yet	No information provided yet	No information provided yet	No information provided yet

14	Wind Turbine Generator	No information provided yet	No information provided yet	No information provided yet	No information provided yet
15	PHL-MICROSAT 1	No information provided yet	No information provided yet	No information provided yet	No information provided yet
16	PHL-MICROSAT 3	No information provided yet	No information provided yet	No information provided yet	No information provided yet
17	PHL-MICROSAT 5	No information provided yet	No information provided yet	No information provided yet	No information provided yet
18	Advanced Traffic Pollution Monitoring and Analysis System Based on Data Collected from Air Quality Sensors, Engine Status Sensors and GPS Trackers Installed on Selected PUVs in Metro Manila (ATMAS)	A web-based Advanced Traffic Monitoring and Analysis System based on automated data collection using GPS trackers and air quality emission sensors on Public Utility vehicles in Metro Manila.	Dr. Proceso L. Fernandez, Jr. Ateneo de Manila University	No information provided yet	No information provided yet
19	Automated Real-Time Monitoring System (ARMS)	An automated real-time monitoring system of measured hydrological and operational parameters at the dam/reservoir for an accurate assessment of situation and time critical decisions during emergency and crisis management	Dr. Francis Aldrine A. Uy Mapua University	No information provided yet	No information provided yet

DOST-PCHRD Technologies for Public Good

No.	Technology	Description	Technology Generator	IP Protection	TTBDO / Contact Details
1	Battle in the Blood (BitB) app	A unique puzzle and turn-based combat mobile game designed to influence social norms, knowledge and attitude towards HIV/AIDS. It is the first app of its kind to focus on HIV problems in the Philippines as well as demonstrate barriers to treatment and counselling.	Dr. Emmanuel S. Baja UP Manila	No info provided yet	Dr. Lourdes Marie S. Tejero ttbdo@post.upm.edu.ph
2	MoCA: A Neuropsychological Test for the Early Detection of Alzheimer's Disease Among Filipino Elderly	A useful instrument that aids clinicians in detecting mild cognitive and impairment and early Alzheimer's disease.	Dr. Jacqueline C. Dominguez St. Luke's Medical Center	No info provided yet	No info provided yet
3	QOL-APO: A Measure of Life among the Filipino Elderly from the Perspective of the Elderly, Family and Healthcare Providers in the Philippines	A novel and culturally sensitive assessment tool to measure the QOL of Filipino elderly who have no dementia, and to compare its psychometric properties to globally accepted tests and measurement standards and procedures already in used.	Dr. Rolando Esteban St. Luke's Medical Center	No info provided yet	No info provided yet
4	MODS assay in the detection of MTB and MDR-TB	No info provided yet	Dr. Myrna Mendoza UP Manila	No info provided yet	Dr. Lourdes Marie S. Tejero ttbdo@post.upm.edu.ph
5	XDP-MDSP Rating Scale for the Evaluation of Patients with X-linked Dystonia-Parkinsonism (XDP)	X-linked dystonia-parkinsonism (XDP) is a neurodegenerative disorder endemic in the Philippines. XDP-MDSP rating scale allows clinicians and researchers to evaluate the severity of XDP as well as determine patient's response to treatment.	Dr. Paul Matthew D. Pasco Philippine Children's Medical Center Inc.	No info provided yet	No info provided yet
6	Philippine Traditional Knowledge Digital Library	A digital library which provides information about the works of other researchers and scholars for free. It was set up by PCHRD, in partnership with UP Manila and PITAHC, as the national electronic database on traditional knowledge in health	PCHRD, UP Manila, PITAHC	No info provided yet	No info provided yet
7	Medical Teledermatology Alert and Response System for Leprosy Control	A mobile health (mHealth) tool that enables health care practitioners in remote areas to refer suspected leprosy patients to experts by sending pictures of skin lesions and patient details through their mobile phone via either SMS or the LEARNS application promoting early case finding and helps reduce delays in diagnosis and treatment. Also provides data for disease surveillance, reaction and treatment outcome monitoring, message broadcasting, patient education, and report generation.	DOH-Novartis Task Force; PCHRD	No info provided yet	No info provided yet