Detailed Budget Narrative

Budget Justification

Budget itemization

A. Senior/Key Personnel

Dr. Pramir Maharjan is the Principal Director (PD) of this project. Dr. Maharjan will be assisted by co-PDs, evaluators, and co-operating farmers for the overall planning and management of the project. The table presented below gives each of the key personnel percent contribution, and their compensation by year, The amount presented in the table also include fringe benefit rates for the personnel as per the TSU provision.

Personnel, TSU	**% Effort**	**Year 1, $**	**Year 2, $**	**Year 3, $**	**Total, $**
Maharjan, Pramir (PD)	10	8,500	8,670	8,843	26,013
Nahashon, Samuel (Co-PD)	5	6,800	6,936	7,075	20,811
Kilonzo-Nthenge, Agnes (Co-PD)	5	5,400	5,508	5,618	16,526
Lawani, Abdelaziz (Co-PD)	5	4,100	4,182	4,266	12,548
Browning, Richard (evaluator, research)	1	1,200	1,224	1,248	3,672
Ricketts, John (evaluator, education)	1	1,200	1,224	1,248	3,672
Total Wages		27,200	27,744	28,298	83,242
Fringe (35 % Academic and 21 % Summer)		8,568	8,739	8,914	26,221
Total Wages and Benefits		**35,768**	**36,483.36**	**37,211.87**	**109,463.2**

The overall activities of key personnel for the project are given in Appendix I.

B. Other Personnel

A total of two (2) full-time MS students will be hired during the project lifetime. Funding for one MS students will be supported by this grant, whereas the other student will be matched by the university (please see the Dean's support letter to support a graduate student). At least one student will be hired during the first quarter of first year of the project. The MS students will assist in day-to-day management of project. Graduate students will have at least 20 hours/week of work commitment to this project to help accomplish each objective associated with the project. They will be compensated from the 'other direct cost' associated with the project.

Other personnel	**Year 1, $**	**Year 2, $**	**Total, $**
MS Student 1	26,400	26,400	**52,800**
MS Student 2 (matched by university support)	0	0	0

C. Equipment description

There will be no equipment over $5,000 that is planned to purchase for this project,

D. Travel

A travel budget of total $18,000 ($ 6,000 per year) has been estimated to participate in the conference meeting and key personnel travel for workshops. Graduate students and key personnel involved in the project will travel to scientific meetings, one per year for three years ($ 6000/travel occasion).

E. Participant Support

The participant support cost mainly covers the expenditure for participants in Workshops 1 and 2 on lodging, per diem, and mileage. The following table gives the breakdown of the participant support cost:

Activities	**Amount, $**
Workshop 1	
Lodging (for 45 participants total, 1 night at @ $ 250 (tax included))	11,250
Per diem compensation (@ 69 per day)	3,105
mileage	4,248
Supplies	2,000
Workshop 2	
Lodging (for 75 participants total, 1 night at @ $ 250 (tax included))	18,750
Per diem compensation (@ 69 per day)	5,175
Mileage (max. 160 miles/participant @ $0.59)	7,080
Supplies	5,892
Total, Workshop 1 and Workshop 2	**57,500**

The locations of the training-workshops will be chosen in proximity to most participants to minimize travel and accommodation cost.

F. Other direct cost

Materials and supplies:

Petty purchases will be made for small pieces of equipment related to running bird trials such as feeders, waterers, and mobile housing, and other accessories for daily bird management.

Feed cost for rearing a total 450 birds (0-32 wks.) is ~ $10,800 (also includes $ 3.5 per chick (females). Roughly 15 % mortality is considered.

A total of 15 Chicken run (200 sq. foot) and 15 chicken coops (>60 sq. foot coop): Twelve units of each (run and coop) will be utilized by the TSU research farm, whereas the other three units will be distributed to co-operating farmers (1 unit each/ farmer). The total cost allocated for chicken run and coop is $13,000.

For the laboratory work, budgeting has been done under following headings.

- Nutrient/Ca digestibility assay and feed analysis: $ 6,500
- Blood and tissue profiling for Calcium: $ 3,500
- Gene expression and Fatty acid studies: $ 15,000
- Microbiological work: $6000
- Software and supplies for keeping record of farm economics: $3,725
- Office supplies =: $ 867/year (~ 2601 for three years)
  The total cost of supplies and materials is **$ 57,825** (excluding publication cost).
- The publication cost that is allocated is **$ 5,000**.

There are two sub-awardee personnel in this project- Dr. Tom Tabler (University of Tennessee) and Dr. Maria Navarro (University of Georgia). Dr. Tabler is compensated at 5 % effort for three years plus fringe

benefits totaling **$ 29,561**. Dr. Navarro is compensated at $ 7,000 per year for three years for her effort as external evaluator for the project totaling **$ 21,000.** See appendix I for their roles.
The Honorarium of $ 2,100 each over the three year period (total **$ 6,300**) will be given to Co-operating farmers for participating in the project, performing on-farm bird trial, and involving in Workshops 1 and 2. Birds will be donated to Co-operating farmers which the income from eggs and meat (stew) will serve as an additional compensation.

G. Direct Costs

The total direct costs by year are presented in the following table.

Direct Cost Total	**Year 1, $**	**Year 2, $**	**Year 3, $**	**Total, $**
Direct cost total	107,427	108,142	141,970	**357,539**

H. Indirect cost

The indirect cost allocation by year is as follows:

Indirect cost Total	**Year 1, $**	**Year 2, $**	**Year 3, $**	**Total, $**
Indirect cost	10,743	10,814	14,197	**35,754**

I. Total project cost

The total cost for the project is presented in the following table:

Cost	**Year 1, $**	**Year 2, $**	**Year 3, $**	**Total, $**
Direct cost	107,427	108,142	141,970	357,539
Indirect cost	10,743	10,814	14,197	35,754
Total project cost	**118,170**	**118,957**	**156,167**	**393,293**

COST EFFECTIVNESS

The chicken run and coop will be constructed with the design and labor help from TSU engineering students enrolled in the class instructed by Dr. Thomas Broyles. The attempt will be made to get donations for feed and chicks. The venue selection for the workshops will be conducted such that it is practical to commute for most participant to save the accommodation cost.

Appendix I:

Key personnel responsibilities:

Dr. Pramir Maharjan: Dr. Maharjan is the project director for this project and is responsible for overall management and execution of the project. Dr. Maharjan will co-ordinate with the Co-PDs, Co-operating farmers, evaluators, and other extension team members of this project to help accomplish project goals in timely manner. Dr. Maharjan will conduct the quarterly meetings with the advisory board to discuss the progress of project as per the Activity Timeline and make necessary adjustments with the progress of work to timely meet each milestone of the project. Dr. Maharjan will lead research (bird trial) and education (workshop series) components of this project.

Dr. Samuel Nahashon: Dr. Nahashon will assist in the experimental design, conducting bird trial, and analyzing laboratory results, and final report preparation.

Dr. Tom Tabler: Dr. Tabler will participate in the project as a speaker in Workshop1 and 2, while also providing his inputs in the experimental design and report preparation of the bird trial.

Dr. Agnes Kilonzo-Nthenges: Dr. Kilonzo-Nthenges will participate in the microbial sample collection, laboratory analysis of collected samples, and interpretation of sample results, and final report preparation.

Dr. Abdelaziz Lawani: Dr. Lawani will help prepare the budget sheets on cost associated with production inputs and performance outputs for farm trials and help in pricing of farm produce (eggs) and come up marketing strategies. Further, he will participate in the Workshop 1 and 2 as a speaker to educate poultry producers on managing farm economics.

Susan Kyle: Mrs. Kyle will participate in the Workshop 1 and 2 as an audience as well speaker (Workshop 2). She will facilitate workshops reaching out to potential small flock producers (target audience) in East TN with the help of extension agents (Jessica Smith). She will participate in experimental design and rearing of the experimental birds (soy-free diets). She will provide her inputs as a small-flock producer throughout the lifetime of the project.

Ron Bridges: Dr. Bridges will participate in the workshop 1 and 2 as an audience as well speaker (Workshop 2). He will facilitate workshops finding veterans (target audience) wanting to get into poultry with the help of extension agents, for the workshops. He will participate in the experimental design and rearing of the experimental birds (corn-soy based diet). He will provide his inputs as a mentor farmer and small-flock producer throughout the lifetime of the project.

Cynthia Capers: Ms. Capers will participate in the workshop 1 and 2 as an audience as well speaker (Workshop 2). She will facilitate workshops finding existing and potential backyard poultry producers (as target audience) in Middle and West TN with the help of extension agents (Karla Kean and Jo Anne) for the workshops. She will participate in the experimental design and rearing of the experimental birds (corn-soy based diet). She will provide her inputs as a mentor farmer and backyard poultry producer throughout the lifetime of the project.

Dr. Richard Browning: Dr. Browning will perform the evaluation of research component of the project at various time points by developing appropriate questionnaire survey to measure the success (processes and outcomes) of the project

Dr. John Ricketts: Dr. Ricketts will perform the evaluation of education component of the project at various time points by developing appropriate questionnaire survey to measure the success (processes and outcomes) and validity of the project.

Dr. Maria Navarro: Dr. Navarro will serve as the external evaluator for this project. She will evaluate the overall progress of the project at multiple time points by developing appropriate questionnaire survey to measure the validity of processes and outcomes of the project.

The overall activities of key personnel are summarized in the following table*:

Activities	**PM**	**SN**	**TT**	**KA**	**AL**	**CF1**	**CF2**	**CF3**	**E1**	**E2**	**E3**	**GAs**
Workshop 1-Conducting workshops, evaluation, and report preparation	X		X	X	X	X	X	X		X	X	X
Bird trial												
Planning experimental design and formulating diets	X	X	X	X	X	X	X	X				X
Farm preparation	X	X										X
Pullet rearing	X	X	X									X
Experimental allocation of birds at production phase- farm at TSU/cooperating farmers	X	X	X			X	X	X				X
Performance data collection, evaluation, and report preparation	X	X	X			X	X	X	X			X
Food safety data collection, evaluation, and report preparation	X			X		X	X	X	X			X
Farm economics data collection, evaluation, and report preparation	X				X	X	X	X	X			X
Laboratory analysis												
Serum calcium and tissue gene expressions	X	X										X
Calcium digestibility	X	X										X
Egg quality parameters	X	X										X
Laboratory work evaluation, results compilation, and report preparation	X	X										X
Bird trial report preparation and completion (farm and lab)	X	X	X	X	X	X	X	X				X
Workshop 2: Conducting workshops, evaluation, and report preparation	X		X	X	X	X	X	X		X	X	X
Final Report (Research and Education components)	X	X	X	X	X	X	X	X	X	X	X	X

*PM: Pramir Maharjan; SN: Samuel Nahashon; TT: Tom Tabler; AK: Agnes Kilonzo-Nthenge; AL: Abdelaziz Lawani: CF1: Susan Kyle; CF2: Ron Bridges; CF3: Cynthia Capers; E1: Richard Browning; E2: John Ricketts; E3: Maria Navarro; GA: Graduate Assistants.