

Budget

BUDGET DETAIL

Cumulative Budget

The cumulative dollar value of this proposed project totals \$199,995,206 for a 4-year effort as follows: Year 1: \$9,994,956, Year 2: \$69,104,167, Year 3: \$47,099,577, Year 4: \$73,796,560. The budget explanations describe the estimating methodologies, assumptions, and support for each of the major cost categories in the proposal.

Cost Tracking and Accumulation: UTRGV has a cost accounting system in place, PeopleSoft, which will track all project costs in compliance with governmental accounting requirements. UTRGV accounting and timekeeping systems will be utilized to provide support for the proposed work.

Direct Costs and Indirect Costs

The following costs will be charged as direct costs: Direct labor time for all Senior Personnel and employees, Fringe benefits for all employees, Raw material, purchased parts and contracted items used in the performance of project work, Professional services and consultant fees related to the project work.

Indirect costs are requested at UTRGV's fully federally negotiated indirect cost rate of 48% of Modified Total Direct Costs (MTDC). For this proposal, costs excluded from MTDC include equipment, tuition, and the amount in excess of the first \$25,000 of the subaward to Region One.

Salaries, Wages & Fringe Benefits

Principal Investigator, Dr. Can Saygin will serve as the Principal Investigator (PI) of the project. his effort is budgeted as 10% of his annual salary. A 3% salary increase is included after the first year for potential merit increase.

Co-Principal Investigator, Dr. Jianzhi (James) Li. As Co-PI and the Director of the UTRGV CAMICS center, Dr. Li will be the point of contact who leads the effort in monitoring the manufacturing, design and other planned activities. Dr. Li's effort is budgeted as 3 academic months each year. A 3% salary increase is included after the first year.

Co-Principal Investigator, Dr. Mostafa Malki, will serve as the prime faculty mentor for business incubation. He will assist in project management, reporting, and support in technology transfer and business incubation. The salary requested for Dr. Malki is 2 summer months and 3 academic months per year for the duration of the project. A 3% salary increase is included after the first year for potential merit increase.

Other Senior Personnel: Additional salary for 18 faculty summer months is requested each year. This will be used to support 1): Six (6) faculty members from Manufacturing Engineering to support technology development effort in manufacturing of the proposed system, 2): Six (6) faculty members from Biology and Environmental Science to support recipe development, nutrition evaluation, analysis and improvement of the composting process , 3): Three (3) faculty members from Entrepreneurship program for incubation mentorship and evaluation of incubation process; and 4): Four (4) faculty members from Information Systems and Computer Science to develop robotics systems needed for sorting of food waste and process monitoring.

Ph.D. Students: Funding for 6 Ph.D. Students is requested. The rate is based on the \$30,000 annual payment for a typical Ph.D. student at UTRGV. The Ph.D. students will assist the PI, Co-PI and Senior Personnel in this project. A 3% salary increase is included after the first year for potential merit increase.

Post Doctoral and Technical Fellows: Salary for 6 postdoctoral fellows and/or technical fellows is requested. The rate is based on an annual salary of \$70,000 for a postdoc at UTRGV. A 3% salary increase is included after the first year for potential merit increase.

Project Executive Director: Salary is requested to support a Project Executive Director with an annual rate of \$120,000. The director will assist the PI in project management, support the research and new process development efforts, and provide support to the entire team.

Outreach Director: Salary is requested to support a Community Outreach Director with an annual rate of \$100,000. The director will assist the PI in programs that are designed to enhance the awareness of GHG reduction and adoption of effective composting in RGV region and South Texas. The outreach director will also lead the team to coordinate relationships with food farms, school districts and local government partners and will play a crucial role in scale up of the project at other regions in Texas.

Incubation Director: Salary is requested to support a Business Incubation Director with an annual rate of \$100,000. The director will assist the PI and the team in programs that are designed to promote green economy and healthy living, through organic composting, smart farming, landscape, and vertical farming. The incubation director will lead the team in the development of the tech demonstration Hubs in the South Texas Region. The director also maintains relationship with angel funds and venture capitals and ensures that the incubation operations benefit the low-income families and communities.

Fringe Benefits:

PY1	PY2	PY3	PY4	Total
\$563,942	\$580,860	\$598,283	\$598,283	\$2,359,319

Fringe benefits for this project include FICA Match (Social Security and Medicare), Employers Retirement Contribution, Unemployment Compensation, Workers Compensation, Vacation and Sick Leave (VSL) and Employers Insurance Contribution. Fringe benefits are calculated at 28% during academic year and 10% for summer months for faculty, 28% for all staff and 10% for graduate students.

Materials and Supplies

In years 1 and 2, \$400,000 is requested for parts and supplies needed for tech demonstration and incubation. In Y3, \$755,000 is requested. In Y4, \$400,000 is requested, as the project becomes more self-sustaining. These funds are requested to support a business incubation program leveraging the compost produced.

Tuition Support

Tuition for 17 Ph.D. Students is requested. Tuition at UTRGV is estimated at \$9,000 per year per student. UTRGV does not charge IDC for tuition support.

Sub-Awards

The Region One Education Service Center is part of a state-wide system of 20 regional education service centers created in 1965 by the 59th Texas Legislature to assist school districts across the state. Originally slated to work with school districts as a media center, the role of the education service center has expanded to work alongside school districts to carry out the three main objectives as stipulated in the TEC §8.002: to assist school districts in improving student performance in each region of the system; enable school districts to operate more efficiently and economically; and implement initiatives assigned by the legislature or commissioner.

Region One will serve as a subaward on the project, led by Drs. Daniel King and Jaime B. Curts, receiving \$18,000,015 over the 4-year period. They will work directly in the coordination with the project team, schools, and other partners in the training and evaluation functions of the project.

Their costs include:

Budget Category	PY01	PY02	PY03	PY04
Personnel	\$865,631	\$1,073,253	\$1,295,504	\$1,524,423
Fringe Benefits	\$189,705	\$220,338	\$251,890	\$284,387
Travel to school districts, professional development activities, and youth summit	\$890,000	\$890,000	\$890,000	\$890,000
Materials and Supplies	\$182,000	\$182,000	\$182,000	\$182,000
Contractual for External evaluator, technology, development of outreach materials, curriculum design, external speakers	\$1,765,000	\$1,795,000	\$1,330,000	\$1,280,000
Indirect Costs, Budgeted at the restricted rate of 12.071%	\$469,844	\$502,225	\$476,731	\$502,251
TOTAL	\$4,362,181	\$4,662,816	\$4,426,125	\$4,663,061

Permanent Equipment

The total cost of permanent equipment is estimated at \$161,479,500. We expect that the total cost of the equipment is to be recovered in 10 years after the equipment is purchased through the incubation program. Equipment was selected based on capability to achieve desired results. A Swedish company has provided letter of commitment to reshore the manufacturing operations in RGV region.

Program Year	Equipment	Cost
PY01	40 10-Ton Modular Composting Equipment for 40 Schools at Region	\$840,000
PY02	38 10-Ton Modular Composting Equipment for 38 Schools at Region	\$798,000
	Modular Composting Equipment for 619 Schools at Region One (Details of the equipment cost and specs are provided in appendix)	\$28,125,000
	100 T Community Composting Facility at McAllen and Pharr	\$30,616,500
PY03	Modular Composting Equipment for 154 Schools at Region Two	\$6,505,000
	100 T Community Composting Facility at Brownsville and Laredo	\$30,616,500
PY04	Modular Composting Equipment for 756 Schools at Region 20 (San Antonio)	\$33,362,000
	100 T Community Composting Facility at Corpus Christi and Laredo (\$15,308,250 each)	\$30,616,500
Total Equipment		\$161,479,500

Total Direct Charges

The total direct charge for the 4-year project is \$193,568,911.

Indirect Charges

The University of Texas Rio Grande Valley's federally negotiated indirect agreement for this proposal is approved 48% rate (MTDC). The modified total direct cost for this project is \$13,338,228 and the total indirect cost is \$6,426,349.

EXPENDITURE OF AWARDED FUNDS

UTRGV has several Division units support research faculty and oversee the post-award processes including working collaboratively with stakeholders (PI/Project Manager, sponsors, etc.) to ensure financial compliance with federal/state/local regulations as well as university policies/procedures; reviewing grant regulations with

the PIs; managing expenditures (e.g., expenditure analysis, budget revisions, pre-approval of cost transactions, monitoring costs for allowability, managing time and effort system); assisting the PIs with timely completion and submission of required technical reports; submitting invoices and financial reports to funding agencies; and performing grant/fund closeout activities. The Division staff work closely to ensure compliance and proper accounting for externally sponsored projects, tracking burn rates, providing audit support, and providing human resource activity support. Additionally, compliance support includes areas of IRB, IACUC, export controls and other research security functions. Through data dashboards and financial tracking, the Division staff proactively oversee each project ensuring it meets the identified deliverables and contractual obligations.

REASONABLENESS OF COSTS

UTRGV's Division of Research reviews costs on sponsored projects to ensure reasonableness and allowability based upon the cost principles in Uniform Guidance, 2 CFR 200. All costs are reviewed for consistency of treatment, reasonableness of cost, allocability to the proposed scope of work, and allowability per the agency/program guidance and federal, state, and local laws.