Proposed Solution

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	CROP YIELD PREDICTION ANALYSIS: soil quality analysis to achieve high crop yield through out technology solution. To increase quality and yields, it is crucial to understand the current nutrient levels of the soil. Analyze pH to check for soil acidity and alkalinity, Conductivity to determine optimised fertilizer usage as well as Sodium, Potassium, Nitrate and Calcium levels. Fertilizer manufactures understand the importance of particle size. It directly affects certain aspects including release rates, fertilizer potency and also hazardous dust generation. To ensure quality and consistency, a minimum frequency of measurements must be made and our Particle Analyzers are ideal for this task.
2.	Idea/Solution description	ICP-OES and LaquaTwin ICP-OES is an analytical technique that is widely utilized throughout the agricultural industry and within research and development institutions. It is an ideal agriculture analysis technique to determine major and minor elements in soils and plants as well as detecting heavy metal contents. Our Ultima has been used in many crop science institutions to undertake such important content detection.

3.	Novelty/Uniqueness	How ICP-OES is used: • Drinking water quality and safety • Soil analysis • Environmental impact assessments • Food safety • Pharmaceutical analysis LquaTwin Detection systems used with ICP-OES.
4.	Social Impact/Customer satisfaction	The main objectives of this technique in prediction of crop-yield which can be extremely useful to farmers in planning for harvest and sale of grain harvest. Increasing crop yields is a high priority for growers.
5.	Business Model (Revenue Model)	The introduction of technology into the agricultural sector has led to a major rise in productivity. Technology improvements have made new concepts like precision agriculture and have observed and analysed the several crops that are grown, as well as their area and production rates in various states and districts.
6.	Scalability of the Solution	Production rate averaging seasons. Experence a rise in productivity. Yield average in seasons. Boots the crop productivity.

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1.	Problem Statement (Problem to be solved)	Variations in annual rainfall, average temperature, global increase of atmospheric CO2, and fluctuations in sea levels are some of the major manifestations of climate change, which negatively impact crop yields.
2.	Idea/Solution description	The regression analysis model between historical climatic data and yield data for food crops over the last 30 years in Nepal showed an increase in temperature of approximately 0.02–0.07°C per year in different seasons and a mixed trend in precipitation.
3.	Novelty/Uniqueness	No significant impact of climate variables on yields of all crops the regression analysis revealed negative relationships between maize yield and summer precipitation, between wheat yield and winter minimum temperature, and finally positive relationship was observed between millet yield and summer maximum temperature.

4.	Social Impact/Customer satisfaction	Though the climate changes and global warming, there will be an more yield in crops and grains. The nutrition also be increased by using the estimation of crop yield techniques and analysis.
5.	Business Model (Revenue Model)	Agriculture production and vuleruability. The accurate prediction of crop yield certainly benefits the farmers in choosing the right method to reduce the crop damage and it is used to produce the sustainability of the crops in any kind of environmental temperature. The aspiration of the planned method is to afford transparent, easily accessible, reproducible and for predicting the yield.
6.	Scalability of the Solution	• Increased productivity from warmer temperature. • Decreased moisture stress. • Possibility of growing new crops. • Accelerated. • Maturation rates.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Lack of mechanisation Some parts of country most of agricultural operations in lager parts are carried on human hands using simple and conventional tools.
2.	Idea/Solution description	The progress has been made for mechanizing agriculture. Strategies and programs in farming have been directed towards the replacement of traditional and inefficient implements by Improved ones, enabling the farmers to own tractors, power tillers, harvesters and other machines.
3.	Novelty/Uniqueness	The agriculture machines as also be developed for large industrial base. Strenuous efforts are made to encourage the farmers to adopt technically Advanced with agricultural equipment.
4.	Social Impact/Customer satisfaction	Time consumption in yield analysis. Cover crop and integrated pest management(IPM) have shown excellent result in increasing the profitability of farming in long-term.

		Yield production encourages the farmers. Economize the agricultural production process.
5.	Business Model (Revenue Model)	Without risk management Correct practises and plan for the long term gain can be achieved easily and reduces the capital investment.
6.	Scalability of the Solution	• Livestock management system. • Productivity of soil and water. • Complies with community norms and meet social expectations. • It will be a profitability of the sustainable farming