

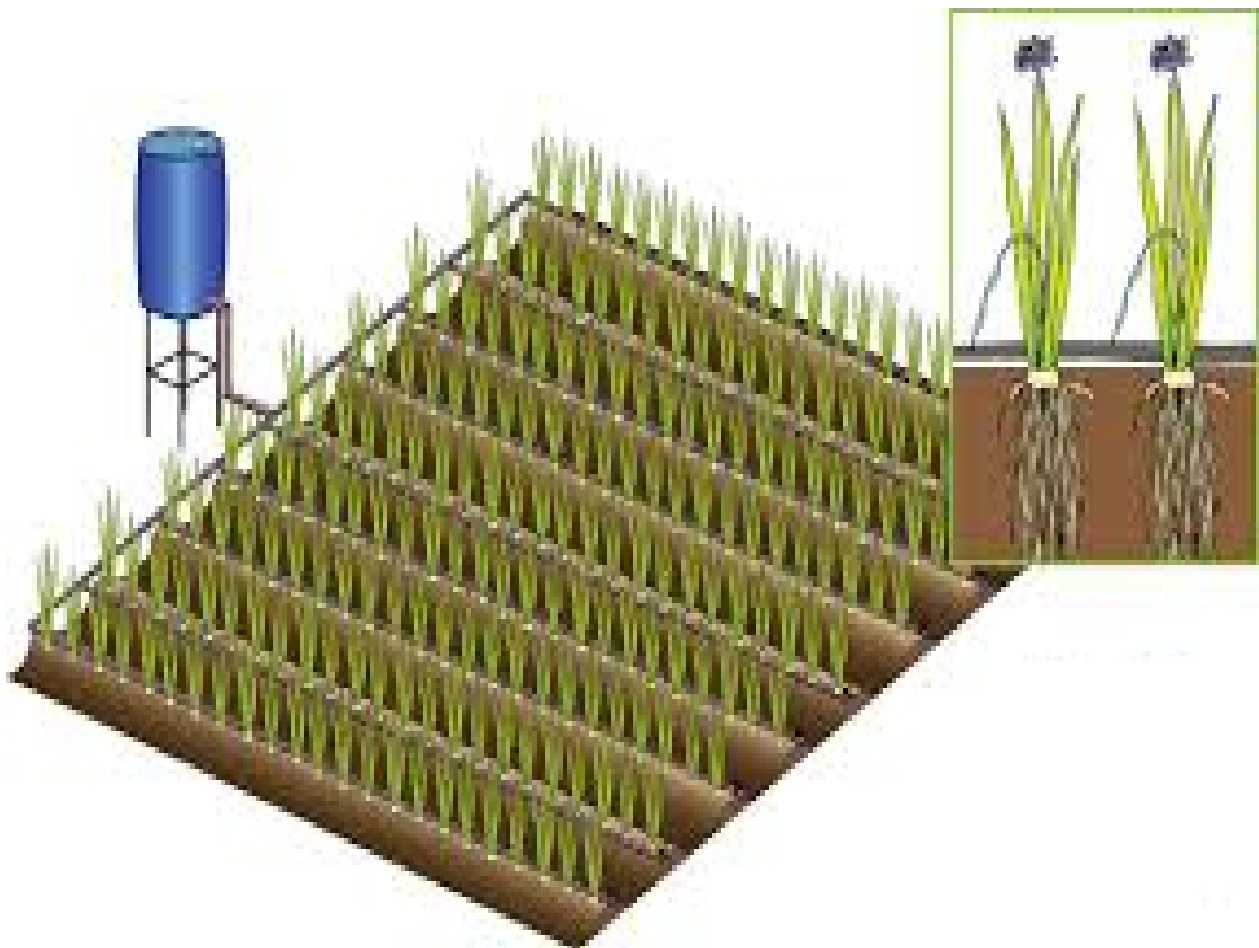


**PROJECT DIRECTORATE
PROJECT IMPLEMENTATION UNIT
SINDH IRRIGATED AGRICULTURE PRODUCTIVITY
ENHANCEMENT PROJECT (CR.5604 PAK) - HYDERABAD**



HEIS Kitchen Garden with Drip Kit - Scheme

TERMS OF REFERENCES (TORs) FOR NGOs



Introduction

Kitchen gardening is meant to supplement the nutritional requirements of a family grown at the homestead both in rural as well as urban areas. A well-managed kitchen garden usually provides sufficient fresh vegetables for the daily needs of an average family. A kitchen (vegetable) garden ideally is an idle/empty space, in or outside the house, utilized to grow fresh vegetables. For sustainable and healthy living, many people around the world are turning to vegetable gardening to supplement their family's diet, save costs on market purchases and even make some money from local sales.

A vegetable kitchen garden typically is watered by a low cost drip system that includes a water tank/drum, fixed at 2 to 2.5ft high to allow gravity flow to rows through an outlet and main pipe. This feeds the water directly to field through laterals made low density polyethylene pipes. The tank is filled manually or by a pumping unit see **Annex-C**.

Objectives:

- To serve as a means of communication/a starting point, to motivate and help as many rural residents to start growing their own vegetables.
- To encourage and enable the population to consume more fresh, local and seasonal vegetables
- Create awareness of the health, flavor, and cost saving advantages and to know where their food comes from.

Benefits of Kitchen Garden

Environmental

1. Growing vegetables at house hold level can reduce carbon footprint provided no chemicals are used. Home-grown vegetables do not need to be transported, contribute to the city's and countryside biodiversity and are good for both fauna and flora.
2. Grow-your-own gives people access to healthy, fresh vegetables while promoting the consumption of local and seasonal produce.
3. A kitchen garden enhances the green cover around our areas of living

Social

- Gardening is a calming, relaxing activity that brings people closer to nature.

Economical

- Harvesting one's own produce reduces the amount of money spent on vegetables.
- Home-grown vegetables are fresh and contain more nutrients than those coming through long distances.

The scheme:

The project intends to establish 10,100 kitchen gardens with poor households (preferably female-headed households and landless farmers) in rural areas of Sindh. Each kitchen garden will be supported for one year divided into 3 seasons with growing nutrition dense crops mainly vegetables.

Package of support:

Households will be provided with:

1. Low cost drip kit-one set,
2. Seed/seedlings/saplings for 3 seasons
3. Micro and macro fertilizers for 3 seasons
4. Tool kit
5. Training of farmers for 3 seasons during one year time

Specifications:

Plot:

Any area/plot of 20ftx20ft size, in or around the house of beneficiary, can be selected for this purpose, given three irrigations can be provided during the growing period of the vegetable crop. Plastic containers of 200 liter capacity is generally available in the market which when filled to capacity and tied to a low cost drip system, is enough to irrigate this plot size for three irrigations in a growing season. Beneficiaries will also be allowed to grow their kitchen gardens together in the same location to share management.

Crops grown:

Mostly various types of vegetables will be grown that provide maximum nutrition e.g. leafy vegetables and will be select according to the climatic conditions of the area. However, fruit sapling will also be provided, depending on the demand of the household. Best quality (certified, improved or hybrid) seed/seedlings/saplings will be provided to farmers through the local market to ensure sustainable production after the project support is over.

Drip kit:

A kitchen garden drip irrigation kit consists of drip irrigation equipment including main & sub main made of u-PVC/HDPE pipe with LDPE pipe drip laterals integrated with small water storage tank/drum of 200 liter capacity, which will be fixed on a gravity base (earth, bricks, wooden) of minimum 2.5-ft height. The tank/drum will be filled manually or via over head tank. See more details in annex-A

Tool kit:

This will include, , specially designed hand hoes, spade watering can or plastic bucket, etc. .

Fertilizers:

Micro and macro fertilizers will be provided -see annex-D for details.

Partners for the intervention:

The scheme will be implemented jointly by the:

1. Poor households
2. Project
3. Local NGOs
4. KG Training consultants
5. Private sector (input suppliers for low cost drip kit, seeds, fertilizers and toolkits)

Procurement management

A: KG drip kits, seeds, fertilizers:

1. Project will ensure to procure drip kit, seeds/seedling/saplings and fertilizers for the Kitchen gardens, either with one or more Suppliers.
2. Selected Supplier will be responsible for transportation of the material to the selected beneficiary locations.
3. The drip kit Supplier will also be responsible for the installation of KG kits.
4. The list of beneficiaries will be provided to supplier companies with address and contact number by the Project.
5. NGO representative shall accompany the supplier to oversee distribution and installation of the kits-
6. NGOs shall provide the KG kits handing over record to respective Deputy Directors along with geo-tagged pictures of beneficiary and NGO representative duly identifying beneficiary through CNIC and land record; where applicable.
7. M&E representative will verify, on sample basis, the establishment of the kitchen garden and reporting to Project.
8. Beneficiaries will contribute labour, fence, tank foundation that will cover also his/her share in the cost of the kitchen garden.

B: NGO:

This will be on voluntary basis. However the project will pay for their transport costs if required NGOs will be assessed and selected for suitability on the basis of following

- a. **NGO must be legally registered in Pakistan**
- b. **Their experience of successfully completing at least one related project during last five years**
- c. **Documentary proof of presence in the district of interest for the last two years (regardless of the nature of work performed).**

Selected NGO will sign a MoU with the project. NGO will select (as per Project designed proforma) beneficiaries against the target for the region / Districts assigned by the project. NGOs will submit final list of selected beneficiaries to respective deputy directors – SIAPEP and a copy to Project Director SIAPEP Hyderabad.

Selection criteria of beneficiaries:

Beneficiary will be selected based on the following considerations;

- i. Marginalized communities (share croppers/tenants/small farmers) mostly from watercourse associations;
- ii. Preference will be given to landless Hari's (farmers) and WHH falling within the areas where project's other interventions are being executed/planned;
- iii. Having access to suitable land of the required size;
- iv. Willing to install Drip Irrigation Kit and share the 10 % cost (In-shape of labour for land preparation, construction (wooden, earthen) of gravity foundation (2.5x2.5x2-ft) for storage tank and provide safe boundary)
- v. Having enough quantities of water for supporting KG;
- vi. Willingness to participate in trainings related to kitchen gardening & agronomic practices Willing to run HKG kit for maximum 1 years;

Roles and Responsibilities

1. Poor households

- Provide plot/space of the required size
- Attend training
- Share the cost
- Maintain the crop and installations in working condition for at least a year
- Provide information on the performance of the kitchen garden to the project staff

2. Project (PIU-SIAPEP)

- Manage Implementation of Kitchen Garden activity;
- Procurement of drip kits and seed, fertilizer and toolkits
- Payments to the Supplier (SSC);
- Hiring of -TAT consultants for trainings in crop agronomy.;
- Selection and signing of MoU;

3. PSIAC

- Scrutiny of **HEIS Kitchen Garden kits** and other inputs
- Ensure the quality and quantity of supplied material;
- Issuance of interim payment requests (IPR) to **PIU-SIAPEP**;
- Supervise the installation activities; (PSIAC & SIAPEP-Field team)

- Verification of KG-kit installation with O&M training to beneficiary;
- Issuance of Final Completion certificate (FCR);

4. **NGOs**

Under an MOU (see template at **Annex-E**) with the project, the NGO will help in outreach to the intended communities. This will include:

- Help in creating awareness and social mobilization of intended beneficiaries for the scheme
- Using the project criteria (see annex) and designed proforma (**Annex-B**) to select beneficiaries
- Preparation area-wise beneficiary list for project scurrility;
- Assist suppliers in distribution and installation of Drip Kits as per approved list and holding farmers' training events;
- Assist Project (PIU) in distribution of toolkits, fertilizer and seed/seedlings;
- Assist and provide guidance to supplier/SSCs in installation of HEIS KG-Kits;
- Assist PSIACs in preparation of FCR
- Assist PSIAC-TAT Team in conducting farmers' training in crop agronomy;

5. **Role of M&E:**

- Verify material on 10% sample basis
- Develop M & E framework and data gathering protocols
- Prepare impact reports

6. **Role of material Supplier/Company(ies):**

Ideally the supply of all the material will be awarded to the same supplier(s)/Company(ies)

- Participate in bidding process as EOI published in newspapers;
- Getting pre-approval of HEIS KG-Kits material's quality from Project;
- Supply of HEI KG-kits's material at mentioned spots;
- Supply of fertilizers, seeds/saplins and toolkits
- Installation of HEIS KG-kits on beneficiary's plot:
- Training of beneficiary in Operational & maintenance of Drip Kits;

7. **Role TAT Team**

Ideally this role will be also given to the same material supply company(ies)/Supplier(s)and will be tried as first priority

- Assist and provide guidance to beneficiaries regarding preparation of KG plot and gravity platform for tank/drum;

- Agronomical training of Agriculture staff of the field teams;
- Agronomical training of selected beneficiaries—the project will determine whether the TAT conducts group training, hence cheaper, and individual farmer’s training is done by project staff;

8. Role of Field Teams

- Assist in selection and provide guidance to beneficiaries regarding preparation of KG plot and gravity platform for tank/drum;
- Provide agronomical training and services to selected beneficiaries;

Project target and plan for Implementation

Households provided with HEIS in Kitchen Gardening (5,000 to landless households and 5,000 to Female headed households)								
Items	Unit	Target Values						
		Aug 2015- Jun 2016	Jul2016- Jun 2017	Jul2017- Jun 2018	Jul2018- Jun 2019	Jul2019- Jun 2020	Jul2020- Jun 2021	Jul2021- Dec 2021
		Year-1	Year-2	Year-3	Year-4	Year-5	Year-6	Year-7
Plan target for remaining years	No.	0	0	1700	2400	2400	2400	1200
Average per quarter	No.	0	0	425	600	600	600	600
Average per month	No.	0	0	142	200	200	200	200

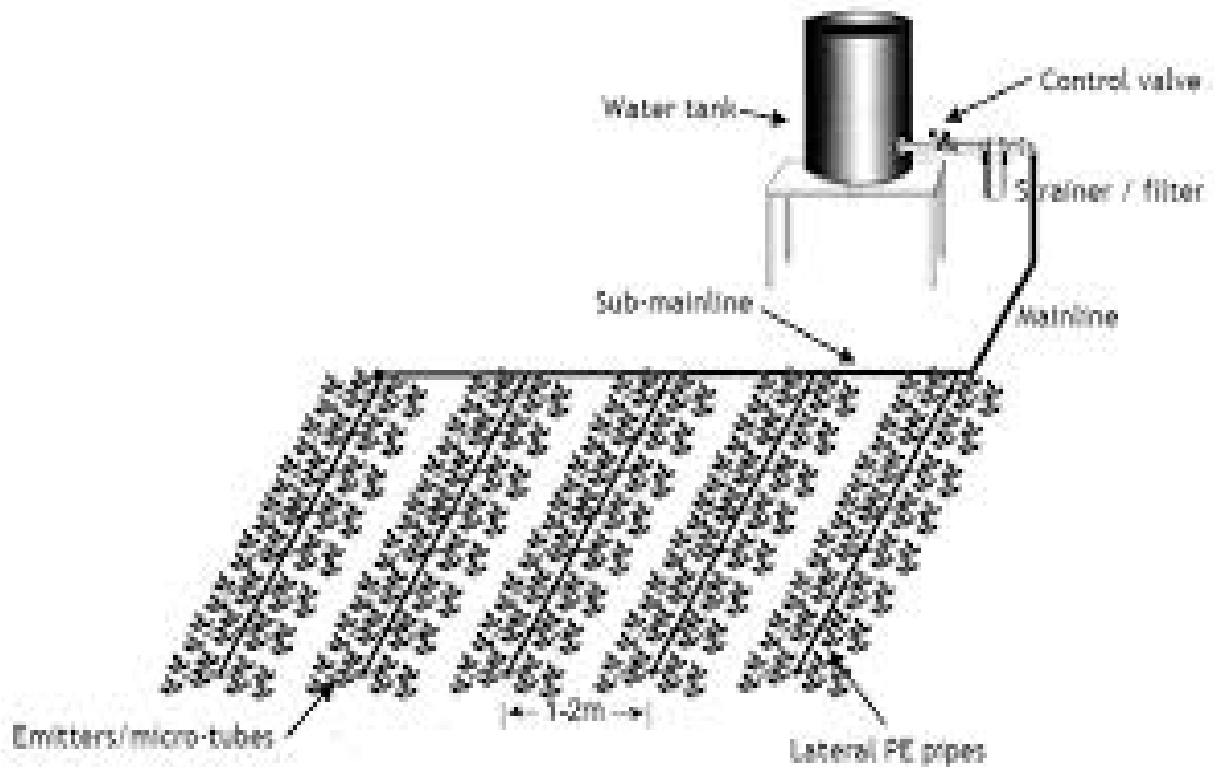
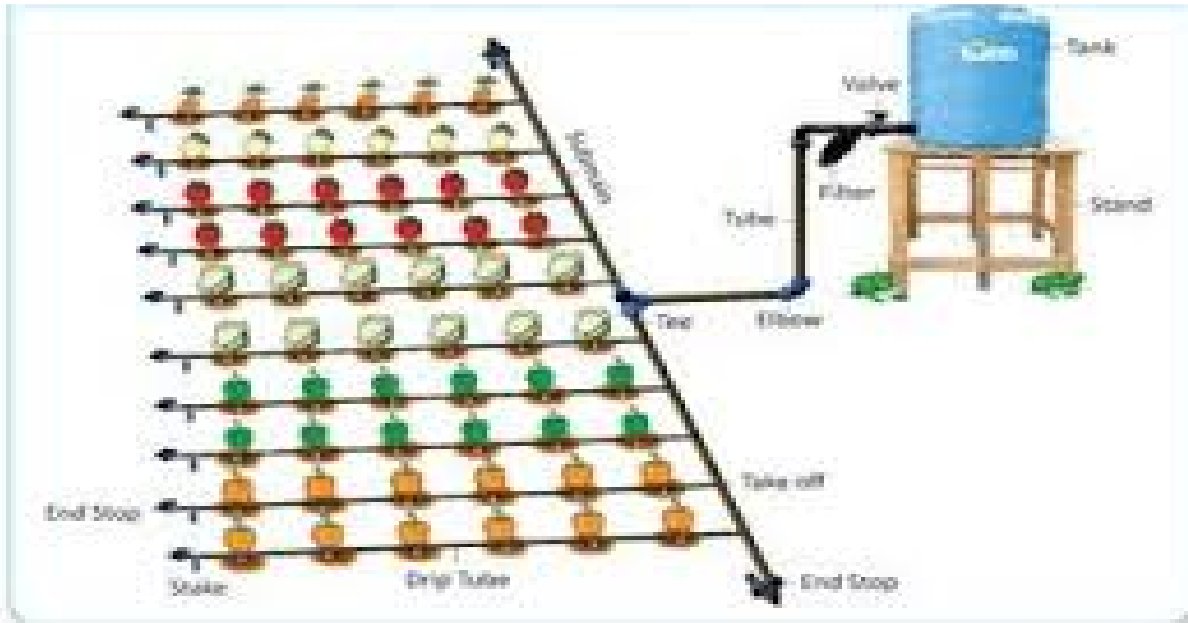
Annexure-A : Detail BOQ for a Drip Kit

						Pak. Rupees (Rs.)
Size of the Drip Kit						(20' X 20')
S.No	Material Description	Specification	Unit	Rate	Quantity	Total cost (Rs)
A	U- PVC					
1	Upvc Pipe (4 bar)	1"	mtr		9	
2	Ball Valve(pvc)	1"	No		3	
3	Tee (Equal)	1"	No		1	
4	Elbow	1"	No		2	
5	End Plug uPVC	1"	No		2	
B	LDPE					
1	LDPE pipe Plain (0.9 Wall Thick) 8 Nos	12mm	mtr		50	
2	Gromate Take off	12mm	No		8	
3	End plug	12mm	No		8	
C	Emitter					
1	Microtube (6" long@1.5ft)	2mm	mtr		42	
2	Take off Nozle for microtube	2mm	No		105	
D	Misc					
1	Brass Check Nut with washer + seal	1"	No		400	
2	PVC Drum	200 liter	Set		1	
3	Shipping, & Installation Charges (package)	Job			1	
S.No	Material Description	Specification	Unit	Rate	Quantity	Total tentative cost (Rs)
E	Household share					
	Operation & maintenance					
1	Labour cost (land preparation)	Hrs.	Rs/hr	50	50	2500
2	Foundation for Tank	2.5x2.5.X2ft	set	200	1	200
3	Fence	Barbed wire or traditional	meter	5	200	1000
	Sub Total					3700

Annex-D details of tool-kit

S. No	Particulars
	A. Tool Kit
1.	Plastic Bucket (Medium size)
2.	Hand Hoe (Khurpi)
3.	Spade
	B. Inputs
1.	Seed of vegetables
2.	Fertilizer NPK (4kg)
3.	Micro Nutrients
	• (boron ½ liter)
	• Zinc 3kg

Annex-C Typical Layout Plan of Kitchen Garden Kits



Annexure-B



**SINDH IRRIGATED AGRICULTURE PRODUCTIVITY
ENHANCEMENT PROJECT**



APPLICATION FORM

(TO AVAIL FACILITY FOR INSTALLATION OF HEIS KITCHEN GARDEN KITS)

Gender: Male / Female

Categories: Female Headed House Hold / Landless Farmer

1. Name of Beneficiary: _____ Father's/Husband's Name _____

2. CNIC No. _____ Cell No. _____

3. Permanent Address: _____

4. Village/Goth/Deh: _____ Taluka _____ District _____

5. Has applicant required size of plot for HEIS kitchen Garden kit : yes / No

6. Location of plot : Inside the house / Outside house

7. Size /Dimension (ft) of Plot available: _____ Sq: feet./ Length _____ ft X Width _____ ft

8. Source of Water: Ground Water / Irrigation Water

9. Source of Water drawn: Hand Pump / manual / Electric Motor / Overhead Tank

10. Distance of water source from Plot: _____ feet.

11. Height of Overhead Tank: _____ feet

Signature/Thumb of Applicant

Note: Application will not be considered without CNIC



سنڌ ايريگيٽيڊ ايگريڪلچر پروڊڪٽوئيٽي انھانسمنٽ پروجيڪٽ



ھائيس ڪيچن گارڊن ڪٽون لڳرائڻ لاءِ درخواست فارم

- جنس: _____ مرد / عورت
- ڪٽ حاصل ڪرڻ وارو / واري گهر جي وڏي عورت / بي زمين هاري
1. فائڊو ونڌڙ جو نالو: _____ فائڊو ونڌڙ جي پيءَ / مڙس جو نالو: _____
2. شناسٽي ڪارڊ نمبر: _____ موبائل نمبر: _____
3. ايڊريس: _____
4. ڳوٺ / ديھه: _____ تعلقو: _____ ضلعو: _____
5. ڇا درخواست ڏيڻ واري جي پلاٽ جي ايراضي HEIS kitchen Garden kit جي ايراضي جي برابر آهي: . ها / نه
6. زمين جي جڳهه: _____ گهر جي اندر / گهر جي ٻاهر
7. ڏنل پلاٽ جي پيمائش جي ايراضي: _____ اسڪوائر فٽ ويڪر: _____ فٽ ڊيگهه: _____ فٽ
8. پاڻي جو ذريعو: _____ جر جو پاڻي / آبپاشي وارو پاڻي
9. پاڻي ڪهڙي طريقي سان استعمال ڪيو ويندو آهي: نلڪو / هٿرادو / بجلي جو موٽر / اور هيڊٽينڪ
10. ڏنل زمين جو مفاصلو پاڻي کان: _____ فٽ
11. اور هيڊ ٽنڪ جي اوچائي: _____ فٽ

صحيح / اڳوڻو جي نشاني

نوٽ: ڪا به درخواست شناسٽي ڪارڊ کان سواءِ قبول نه ڪئي ويندي

Annexure-E

Memorandum of Understanding (MoU)

Between

PROJECT DIRECTOR

Sindh Irrigated Agriculture Productivity Enhancement Project

And

NGO(Name of Organization interested to enter into MOU)

NAME OF PROJECT; Sindh Irrigated Agriculture Productivity Enhancement Project

PROJECT DISTRICTS;

PERIOD;

Background

Government of Sindh, Department of Agriculture, has initiated the Sindh Irrigated Agriculture Productivity Enhancement Project under the Sindh Agriculture Engineering and OFWM Department with the (financial) assistance of the World Bank. The project began its operations in August 2015 and is planned to end by June 2021 covering all the 24 Districts of Sindh.

The main objective of the project is to improve irrigation water management at tertiary and field levels in operational districts. The project supports efficient management of scarce water resources at the tertiary and field level where water losses are highest together with promotion of high efficiency irrigation system and improved irrigation agronomy practices. The project is designed to support adaptation to different climate change scenarios.

The project has four components. (1) The community water infrastructure improvement component consists of three subcomponents: A1 will assist Government of Sindh efforts to: improve and rehabilitate tertiary distribution level water courses. Activities under this component will include farmer mobilization, establishment of Water Course Associations (WCAs) and their registration, survey and design, and construction. A2 will increase the resilience of the rural poor to floods through the strengthening of flood mitigation measures, including the establishment of shelters. A3 will finance the provision of supervision and implementation assistance consultants (PSIAC) for project design and construction supervision for activities under Component A. (2) Promotion of high efficiency irrigation systems component consists of two sub-components: B1 will support installation of HEIS drippers and bubblers for growing high value crops on irrigated and irrigable land; provide technical assistance packages to farmers on operations and maintenance of HEIS; and provide additional training and assistance to farmers in the use of HEIS by specialists and consultants. B2 will support poor households in establishing kitchen gardening at their homesteads(3) Improved agriculture practices component consists of 2 sub-components: C1 will provide laser guided land leveling equipment and associated deep ripping equipment, and will facilitate training in the use of deep ripping equipment while components C2 will provide training to farmers in good agriculture practices through a FFS, exposure visits to best production and trading places; rearing on farm, of natural enemies (predators) against harmful insects/pests and training of department staff. (4) Project management, monitoring and evaluation, and strategic studies will be supported under the component 4.

To support implementation of the **Kitchen Garden activity** of the project, the project is seeking voluntary support from local NGOs working in Sindh province and hence the following MOU.

1. Parties to the MOU

This is an understanding (Memorandum of Understanding also referred as MoU) entered into thisDay of2017 between Project Director Sindh Irrigated Agriculture Productivity Enhancement Project (SIAPEP also referred as Client) andName of the organization entering into MoU (Referred as Facilitating Partner)

2. Introduction of NGO

3. Geographical sphere

These both organizations have agreed to support each other in implementation activities of Kitchen gardening specially where NGO have already formed community institutions (CO/VO/LSO a three-tiered social mobilization and organization) in xx (names of Districts).

4. ROLES & RESPONSIBILTIES

3.1 ROLE OF NGO

- NGO will facilitate Project teams' (AEWMD) access to its organized communities in its operational areas.
- NGO, with the help of Community Institutions, will identify the beneficiaries as project per selection criteria.
- NGO shall conduct preliminary dialogue with BHHs.
- NGO will share IEM material among beneficiaries.
- NGO shall facilitate in organizing the trainings at field level.
- NGO will ensure joint visit to BHHs during implementation of project.
- NGO shall share visit reports to project representative.
- Additionally, NGO will facilitate the project in identification of water courses and farmers in laser land leveling by project supported PLL service providers.

4.2 ROLE OF the Project

- Project will provide kitchen gardening kit including took kits and seeds / fertilizers as per specified quantities to the communities.
- Training to identified BHHs

- Orientation of the activity to the NGO staff
- Project (district team) will provide transport facility to NGO team.
- NGO identified watercourses will be given due consideration by the Project.
- Project, team will implement these activities along with NGO.
- The necessary expenditure on trainings, transportation, logistic support and honorarium if any to community members will be borne by Project Office and paid directly without any involvement of NGO.
-

**5. EXPECTED OUTCOMES of the Kitchen Garden
Economic & Social Impacts**

- i. Capacity of organized communities will be built for Kitchen Gardening.
- ii. Villages will become attractive for all farmers due to introduction of new interventions with advance technologies (small & Big).
- iii. Food in shape of vegetable will be available at every village
- iv. Environment and Land escaping will improve.
- v. This activity will generate greenery and surrounding forestation.
- vi. Local Vegetable sales and markets will emerge.
- vii. Fodder for animals will be available.
- viii. Herbal medicines can be prepared from leaves & flowers of trees.
- ix. Fruit plants will be promoted
- x. Nutrition deficiency can be addressed.
- xi. Health of poor community will be improved.
- xii. By selling surplus vegetables income of poor communities will be increased.
- xiii. Vegetables at HH level will be available which reduce burden on monthly expenses of HH.
- xiv. Water conservation will be promoted.

6. TENTATIVE WORK PLAN

S. N O	NAME OF ACTIVITY	TOTAL NO OF ACTIVITIES	Responsibility	YEAR 1	YEAR 2	YEAR 3	YEAR 4	Year 5
1	Dialogue							
2	Identification							
3	Trainings							
4	Distribution of seed							
5	Distribution of Micro drip tool kit							
6	Distribution of IEC material							
7	Follow Up Visits							

7. Title of Property

All documents, drawings reports and material related to KG Scheme will remain the property of Client/Project.

For and on behalf of NGO

Project Director
Sindh Irrigated Agriculture Productivity
Enhancement Project Hyderabad