

Call for expressions of interest to develop a business model of “Date Palm Drying Technology” consultancy in Gaza Strip

TERMS OF REFERENCE

1. Background

MA'AN is an independent Palestinian development and training institution, registered by law as a non-profit organization. The main office is located in Ramallah and the other branch offices are located in Gaza, and Jenin. MA'AN's work is informed by the necessity of creating independent, self-reliant initiatives that lead to the development of human resources for sustainable development, which incorporate values of self-sufficiency and self-empowerment.

MA'AN in partnership with APHEDA started the implementation of the third phase of the AMENCA Program, where the vegetables and date palm value chains are targeted in Gaza Strip.

The goal of the project is to **increase the profits of small-scale farmers, processors and entrepreneurs through quality market connections**. This will be achieved through the following outcomes:

Outcome 1: Women and men more market ready

Small-scale Palestinian women and men farmers achieve profitable scale and consistent quality through more efficient use of agricultural assets, inputs, innovative agricultural practices and applied research.

Outcome 2: Women and men engage more sustainably and profitably in selected value chains

Women and youth engaged in quality food processing and marketing to increase the value of target crops. Small-scale women and men farmers and producers connected to commercial private sector traders for domestic and international markets.

Outcome 3: Women and youth more economically empowered

Women and youth profitably engaged in value chains, structural barriers to women's economic and social inclusion are removed, youth given opportunities for business training and entrepreneurial skill development.

Date Palm Production in Gaza

The area planted with date palm represents the second largest area planted with fruit trees. According to Ministry of Agriculture (MOA), there are 7,835 dunms planted with date palms in Gaza, 55% of which are productive while the rest 45% are in the process of production. Currently, the total number of planted date palm trees is 250,000 tree distributed all over Gaza Strip, however the majority of trees is concentrated in Khan Yunis and Middle Area Governorates. 90% of date palms produced in Gaza are from Hayani variety while 10% are from other varieties such as Bent Aisha, Berhi, Ameri, etc. The average annual production per Hayani tree is 150 kg of dates.

Date palm production requires relatively small amount of inputs (fertilizers and pesticides), costs around ILS 20 per tree. Palm trees do not require a huge amount of water, approximately 50m³ of water per year, and they are saline tolerant. This makes them a suitable crop for Gaza growing conditions.

According to the recent reports, most small scale producers are suffering losses during the palm date season each year for many reasons includes:

- Improper care of date palm trees (poor practices).
- The old age of most date palm trees (less economic).
- The widespread of red palm weevil among date palm trees.
- Oversupply and low market prices at glut periods (low profits)

Around 40% of date palm farmers do not have any source of income apart from their date palm trees. Farmers prefer to plant date palm in their fields because it is suitable for the Gaza climate, consumes minimal water and is tolerant to saline water.

Significant number of date palm producers will be at risk of getting out of the market and losing their main source of income if continue selling the fresh dates at low market prices. Therefore, helping farmers to access new market channels through expanding dates processing will attract farmers to continue investing in the date palm production.

Economic Growth Potential of the Date Palm Sector:

Dates are one of the strategic commodities for Gaza population. Gaza produced an annual 12,000 tons of dates in 2015 worth \$3.3m. 90% of the dates are sold to the market as fresh dates, while the remaining 10% are processed into different date's products such as date paste, molasses, and jam.

The demand for date's products has been growing in the last years. The date paste is the main product out of dates' processing with total annual demand of 1,500 tons in 2016¹. Almost 85% of date paste products imported from West Bank, Israel and/or foreign counties either as final date past products or as dates for processing. The remaining 15% are produced domestically. This market gap shows a real opportunity for growth in dates palm industry. Ultimately, there is an oversupply of dates when compared to the fresh dates demand, however, you can see the balance in supply when consider the total demand for dates includes the demand for processed dates. Therefore, the average per unit price of local fresh dates is much lower than the price in neighbor countries.

Date palm processing in Gaza

Date palm can be processed into many different products such as paste, jam, molasses and many different food products, as well as, non-food products such as fodder. However in Gaza, the majority of farmers sell dates as fresh products in the central markets with very cheap prices. Therefore, there is an opportunity to increase the value of Hayani dates through processing it into different high value products.

One of the most promising products in this sector is the date paste (AJWA) since this product has a high demand among Gaza population, while still the current supply can't fulfill the growing demand. According to the Ministry of Local Economy (MoLE), Gaza annual demand of date past is 1,500 tons while only 200 tons produced locally. This indicates that the domestic production can be increased by more than 1,300 tons (consumes 3,900 tons fresh dates).

There are currently 5 date paste processors, 7 small women processing units in addition to many home-based units in which hundreds of women are working.

MA'AN analysis of the dates palm value chain in Gaza shows a number of key systematic constraints which binding any potential growth in the value chain, and making the market system not inclusive for the vulnerable farmers. It was obvious that the drying is one of the key binding constraints which limits any development of the date paste industry and so the date palm value chain. **The current drying technology is very primitive with low quality produce and low productivity.**

The study also shows a real opportunity for private sector to invest in date palm industry through developing the drying models adopting low cost technologies. The investments in the date past

¹ Ministry of Agriculture Report (2016).

industry will help hundreds of vulnerable farmers to access new market channels for their dates produce.

2. Objective of the consultancy and the scope of work

The aim of the consultancy is to develop one viable business model; addressing the drying as a key supporting service for processors; which then can be marketed to potential investors.

To achieve this aim MA'AN expects consultancy firms to execute the following:

#	Tasks
	Review the current local experiences in drying both in WB and Gaza.
	Review innovative models of drying in other countries in the Region and/or other Regions taking into account Gaza date palm varieties, climate conditions, and low tech models (i.e. sun drying models and/or solar dryers _ attached is one of the models to be considered in the review).
3	Execute end market analysis to understand the current and future demand of drying technology (mainly for the date palm) segmented by each processing category in Gaza.
4	Propose set of viable drying models. The proposed models should take the following areas into account: <ul style="list-style-type: none"> - Significantly, higher drying rates comparing to the typical drying models; - Fit the dates palm varieties supplied locally (i.e. Hayani, Berhi, Amri.etc); - Minimize the risks of spoilage during the drying process; - Best utilization of land and physical resources; - Ensure protecting dates from dust, insects, birds, and animals; - Can be constructed from locally available material at relatively low capital costs and preferably no fuel costs; - Easy to be maintained; - Fit different needs of different processing categories; - Utilize low cost technologies (easy to be applied and replicated).
5	MA'AN is going to develop an evidence based knowledge according to set of practical applications of the designed models in the field. The consulting firm should provide the needed technical resources to supervise, monitor, and document the application of the piloted models.
6	According to the pilot findings, the consulting firm should identify the best model/technology of date palm drying in Gaza.
7	Once the model identified, the consulting firm should elaborate the business model to include the following: <ul style="list-style-type: none"> - Present the value proposition of the proposed drying model; - Describe the potential customers for the drying model; - Illustrate the most feasible marketing strategies; - Explain in details the key activities and key resources needed to establish the model take into account the post harvesting and storage practices; - Provide full financial analysis of the model includes the cost structure and revenue stream.
8	Develop a technical manual to guide processors and farmers on best practices to achieve high quality of dried date palm. Besides, explains how to run and maintain the new system efficiently.

3. Qualifications of the consultant:

MA'AN seeks qualified consulting firm with proven experience in the field of the sought consultancy. The consulting firm should present set of qualifications and technical backgrounds that suits the scope of the consultancy. MA'AN expects the consultancy firm to have a consultancy team with the following experience in the fields of:

- Industrial engineering.
- Electrical engineering.
- Agriculture engineering.
- Marketing and business development

The consultants should preferably have a minimum of 10 years of relevant experience, and must have extensive knowledge and proven experience in drying technologies.

4. Deliverables

#	Deliverable	Expected contents	Notes
1	A report presenting the reviewed national and global experiences in drying with clear recommendations of the models to be piloted supported with explicit justifications	Working Methodology The Presented Model: - Characteristics - Advantages - Disadvantages Conclusions Recommendations	-
2	The End Market Analysis Report	- Context: Analysis of the markets and challenges facing farmers related to drying. - Customers: Analysis of each customer's category. - Competitors: Analysis of current and potential competitors. - Channels of marketing	- The report should be within 7 pages without annexes. The report should be in English language. - The report should include photos from the field. - All the interview sheets should be attached with the report.
3	Layouts, bill of quantities, and shop drawings of the proposed viable drying models (at least two)	- Process Layout: Design for the drying unit which aims to improve efficiency. - Shop drawing: Drawing which should set clearly structure installation. - Bill of quantities: Thorough description of the items specification with proposed quantities and estimated market prices.	- All documents should be in English language. - Each of the content items should be done for 3 drying models.
4	Documentation of the piloting process	- Description of the piloted processes - Technical review of each piloted model - Results of the pilots - Cost-benefit Analysis based on the piloting findings - Conclusions and recommendations. This should inform clearly the best model/technology of date palm drying in Gaza.	- The report should be in English. - The report should include photos taken from the field per each process. - The report should include accurate figures and very specific technical details.
5	A business model of drying technology.	- Value proposition: What products are offered to each customer segment? - Customer segments: For whom the value is created? - Channels: (Awareness, Evaluation, Purchase, Delivery, after sales). - Customer relationships: (per each category segments). - Key partners: (Key partners, Key	- The business model should be written in Arabic. - The business model shouldn't exceed 15 pages without annexes. - A 3 pages summary of the business model in English. - Financial analysis should

#	Deliverable	Expected contents	Notes
		suppliers). - Key activities: (Production, problem solving, platform, network). - Key resources (Physical, Human, Financial)	be done in excel sheets and submitted as annexes to the business model.
6	Technical manual on best drying practices.	- General information about drying process. - General information about the date palm varieties and fruit characteristics per each variety. - The best drying practices (Starting from post harvesting practices ends with packaging and storing). - Full description about the introduced drying model. - Value proposition of the model. - How the model can fit different needs. - How the model can be established, installed, expanded and maintained.	- The manual should include drawings and photos - The manual should be in Arabic - The language should be simple and easy to understand by farmers

5. Implementation Timeline:

#	Activity	Year (2017)				
		July	August	Sep	Oct	Nov
1	Review of relevant local and global experiences Execute end market analysis for the drying technology in Gaza					
2	Reporting about set of viable drying models					
3	Piloting of different drying technologies					
4	Elaborate the business model of the selected viable drying technology					
5	Develop a technical manual on best drying practices applying the designed drying technology					

The assignment will commence upon signing the contract with the consultant and will end by the satisfactory submission of the deliverables outlined in the TOR.

6. Submission of proposals:

Interested consulting firms should submit **two sealed offers** as follows:

1. **The technical offer** must include;

- An elaborated methodology to perform the required tasks, including a one page outlining how the consultant/firm has the skills, knowledge and experience to achieve the above outputs and, if a team is offered, a clear division of roles.
- At least two suggested low tech drying models with simple layout of each model.
- Samples of previous relevant work for each consultant engaged in the offer.
- Action plan with time frame
- The CVs of the working team clarifying related experience. The consulting firm should clarify clearly the role of each member in the team using the template below:

Name	Role	Key Qualification	Attachments
			Related CV

Each CV should include at least:

Name:			
scientific background & degree:			
Number of years of work experience related to his/her role in the TOR:			
Number of years of training experience related to his/her role in the TOR:			
Number of Years or months of experience (in numbers)	Project name/ training topic	Where	notes

The deadline of the proposal submission is **15/6/2017** at MA'AN Development Center office in Ramallah Al Maysoun (supermarket bravo building, 5th floor) Palestine
Telephone : +972-2-295-4451.

2. The **Financial Offer**, using the BoQ template, Annex 1.

The consultant must submit the two sealed envelopes separately.

7. Awarding process

Offers will be assessed first on their technical merit using the evaluation criteria below. Only technical scores of at least 70 points will qualify for the financial review. The financial offer weight is 30% from the total weight while the technical offer is 70% of the total weight.

The technical offers will be scored according to the following points:

- 1- Consultant Related Experience
- 2- The team composition
- 3- The team members related experience (considering the identified role)
- 4- The team members scientific background and degree(considering the identified role)
- 5- Submitted working methodology/approach
- 6- Previous experience with MA'AN

Should you have any further inquiries, please write Ehab Abu Hussein at ehab@maan-ctr.org

ANNEX 1: FINANCIAL OFFER

No.	Item	Unit	No. of units	Unit cost USD	TOTAL COSTUSD
1	Develop a viable business model of Date Palm Drying Technology in Gaza. This includes all of the tasks mentioned in section 2 of the ToR and deliverables mentioned in section 4 of the ToR	No.	1		
TOTAL COST (IN FIGURES) :					
TOTAL COST (IN WORDS):					

- **All costs above must be in USD.**
- **All costs above must include invoice.**

Name and signature of the consultant

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