



Emergency Market Mapping and Analysis (EMMA)

Pilot Test 4, Pakistan

Jan 25 – Feb 8, 2009

Key Findings and Recommendations

Tomatoes Market-System

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This report has been produced for Oxfam, IRC and InterAction.

It contributes to the development of a toolkit (EMMA) for humanitarian agencies to better understand market systems in the aftermath of sudden-onset emergencies.

For further information please see www.emma-toolkit.info



Acknowledgments:

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1. Introduction and Background to Crisis

Conflict between Taliban and Pakistan military forces in the North West Frontier Province (NWFP), including the Federally Administered Tribal Areas (FATA), has led to a mass movement of internally displaced persons (IDPs) to safer surrounding districts. In Swat district, fighting is on the rise with an estimated 50% of the total 1.8 million inhabitants severely affected by the conflict and a large number of individuals displaced within the district. Similarly, a staggering 20% of the total population (est. 850,000) of Bajaur *agency* in FATA has been displaced to NWFP, while an unknown number of people are likely to be affected within this administrative district. Between October 08 and January 09, nearly 230,000 individuals have been displaced by the ongoing fighting have been registered in nine districts of NWFP. UNHCR reports 178,056 individuals living outside the camps with host families or rented accommodation and 54,664 people living in 12 camps, which have been established in safer districts of NWFP. However, the total number of people in need of humanitarian assistance is higher, as registration outside the camps has only taken place so far in 70% of the affected northern districts. In addition, the UN foresees that the conflict in FATA and in Swat District in NWFP will continue to escalate throughout 2009, causing new displacements. Overall, it is estimated that the total IDP caseload could reach up to 625,000 people.¹

Of the 232,720 displaced people, approximately 76% are from Bajaur Agency.² The military operation has caused severe damage to communication, health, education, public health engineering infrastructure and civilian homes in six administrative districts, *Tehsils*, of Bajaur (Khar, Mamund, Utmankhel, Salarzai, Barang and Nawagay). The ongoing conflict has resulted in damages to standing crops on 16,630 ha of land. The maize crop was either cut by the army because it was seen as a security threat or could not be harvested due to the migration into camps. The UNDP estimates a total 80,000 large animals, 120,000 small animals and almost 140,000 poultry has died or been displaced.³

Based on the IRC household economic survey it was found that the typical monthly household income of IDPs in the camps has dropped to 40% of the previous income in the camps. Crop production represented 32% of the typical IDP household income before the conflict, and now it is merely 4%. Most IDPs sold their livestock enabling them to move to the camps, but this money will soon be gone. The IDP families are incredibly vulnerable to shocks and without a productive asset or secure source of income these families will not be able to subsist on the camp distributions.

The Commissionerate for Afghan Refugees (CAR) was established to coordinate all humanitarian response and with the UNHCR, lead this effort for the duration of the camps. These two organizations are now leading the humanitarian response to the IDPs. The UN cluster mechanism is activated to coordinate service provision in all the camps but funding and responders are still inadequate. However, the overall socio-economic indicators in these camps are dismal at best, largely due to inadequate health facilities, insufficient education

¹ Humanitarian Response Plan, UN 2008-2009

² UNHCR Pakistan IDPs report, 27/1/2009

³ UNDP, Needs Assessment for IDP Early Recovery, Agriculture and livestock directorate FATA Secretariat, Nov-Dec 2008

opportunities and poor hygiene and sanitation amenities, compounded with a host of protection issues.

IRC is currently addressing protection issues of the 7,041 IDP households now residing in two of the eleven camps, Jalozai and Katcha Garhi. The IRC partners with UNICEF to provide emergency WASH services to approximately 7,000 IDPs in Jalozai II camp. Also in Jalozai, IRC provides emergency education to over 4,000 IDP children. As of January 29, 2009, the IRC had already enrolled 2,036 students in the Phase I school. Each of these programs will provide additional support for coordinating and aligning interventions, while also gaining trust and confidence from the communities

2. Methodology

IRC has completed the Emergency Market Mapping and Analysis (EMMA) pilot to investigate the effect of the IDP crisis on critical market systems. The ultimate aim of EMMA is to improve the effectiveness of early humanitarian action taken to ensure people's survival, protect their food security and their livelihoods; and to avoid doing harm. The tool helps to identify key market systems based on the needs of beneficiaries and sources of potential income, analyzes the entire market value chain, and enables humanitarian agencies to consider creative responses.

Based on specific criteria, the EMMA team selected the firewood and vegetable market systems for analysis, employing the tool to measure the shock of the IDP crisis in NWFP on each market. These market systems have been selected based on the priority needs of the IDPs, as well as an analysis of which markets are crucial for protecting their livelihoods. The firewood market was selected as an 'supply' market while the tomato/vegetable market was selected as the 'income' market for analysis.

The EMMA field team consisted of 6 people; the EMMA technical consultant, the Program Development Manager, the Youth and Livelihood Technical Advisor, the Peshawar office Field Coordinator and 2 IRC field staff employed in camp-based education and protection emergency programs. Unfortunately, the consultant and the Program Development Manager were unable to travel to the field due to the security risks. Two teams were established to concentrate on each market system, with equal gender breakdown (1 man/1 woman).

The initial five days in Islamabad concentrated on the preparation phase and the preliminary analysis. The teams traveled to the field for next 5 days to conduct field work in Jalozai camp. Jalozai camp was selected because it is located 30km outside Peshawar, and therefore the IDP population is less integrated into Peshawar markets providing a distinct opportunity for analysis.

The field work methodology consisted of the household economic approach, qualitative interviews and focus group discussions. Based on tools developed in the preparation phase, the teams conducted fieldwork in Jalozai during the day and performed data entry at night. Each afternoon the field teams would debrief over the phone with the Islamabad based team. The final 5 days in Islamabad were devoted to analysis, when the field teams and Islamabad team took time to review the fieldwork and analyze the findings.

Actual assessment time can be broken down to:

Preparation phase: 2 days

(background information and preliminary analysis of markets)

Interviews / field: 4 days (HH, key informants, market actor interviews)

Data entry and analysis: 1.5 days

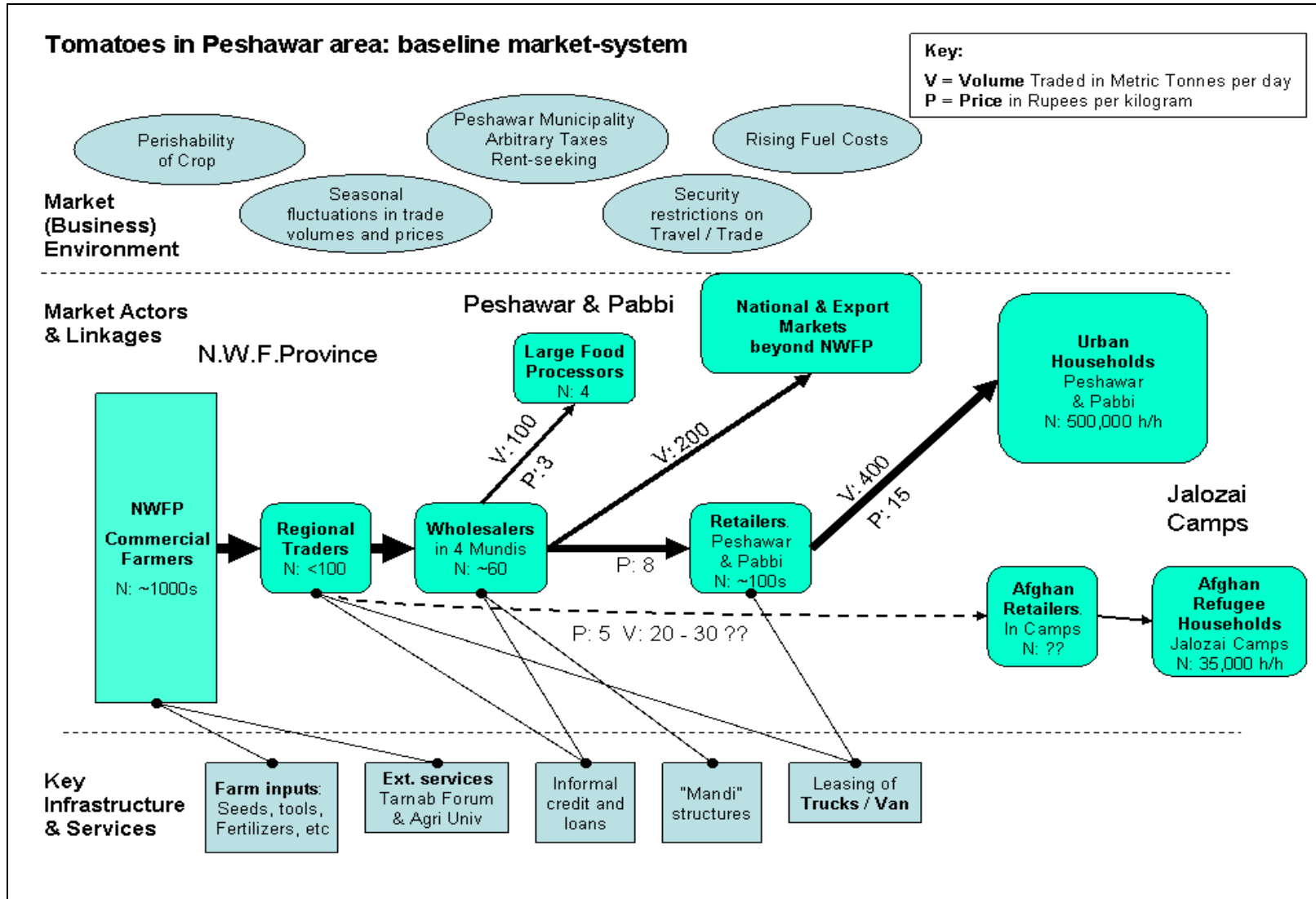
Total time processing the steps of the tool: 7.5 days (approximate)

2.1. The interview schedule for this assessment:

Field Interviews	
HH Econ	11
HH Qualitative	11
Small vendor - camp	1
Vendor-city/hub	2 (indv interview) 6 (focus group)
Whole salers	2
Transporter	3
Key informants	CAR, UNHCR, Forestry Department,, Fata Secretariat; ICRC, Pakistan Red Crescent, Islamabad Wholesaler

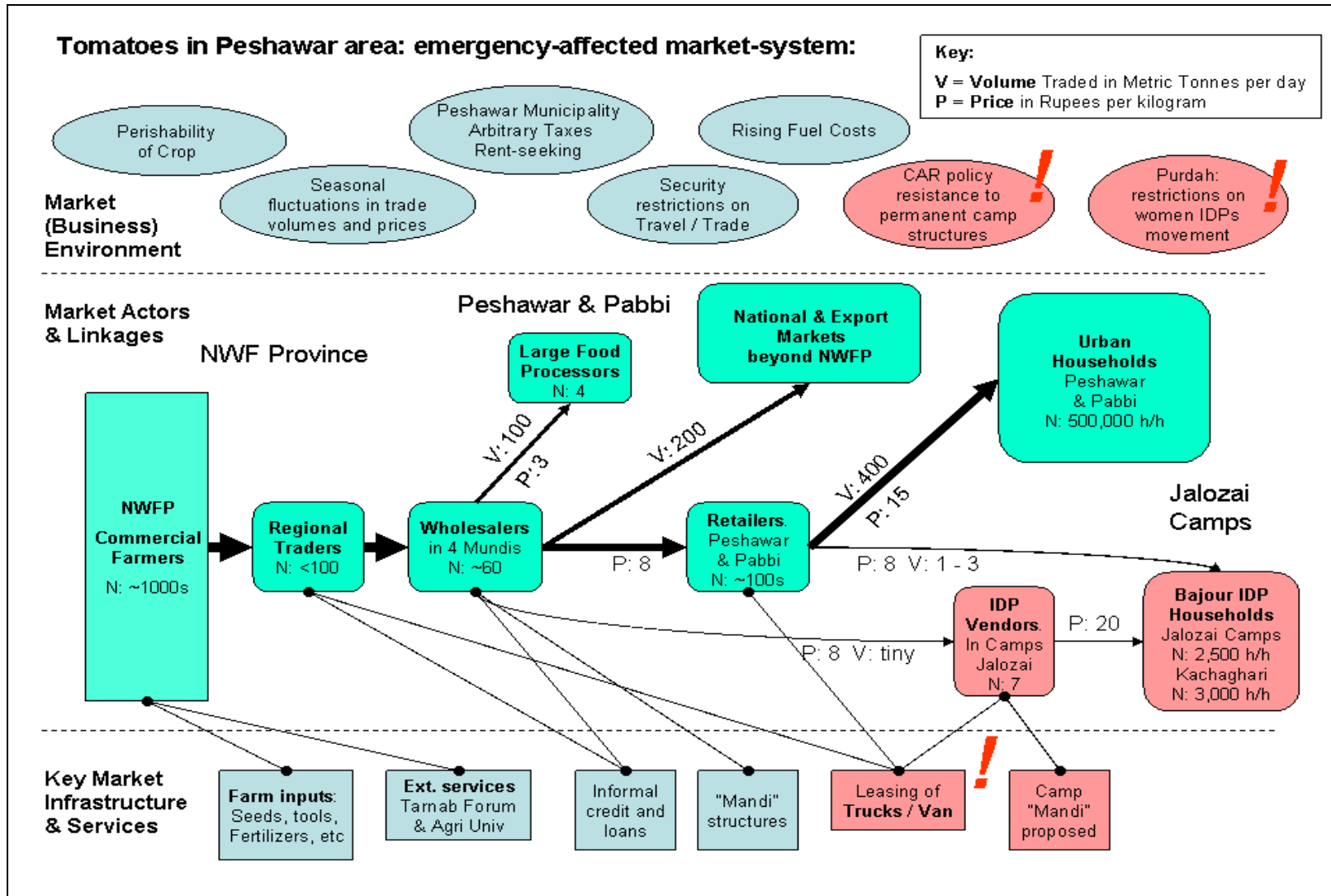
3. Baseline Mapping

The tomato market in Peshawar-Pabbi area prior to the influx of 50,000 IDPs to Jalojai camp



4. Emergency Map

The tomato market in the Peshawar-Pabbi are following the October 2008 influx of IDPs to Jalojai camp



5. Key Features

5.1. Actors and Map Features:

There are two main maps – the Pre-Emergency Vegetable Market Map and Post-Emergency Vegetable Market Map. The following paragraphs explain the main actors, price variation, and supply dynamics.

Farmers: Prior to the displacement, farmers were the first actor in the market chain. They produce tomatoes and other vegetables in addition to other, cash crops like wheat and maize. Their numbers are in hundreds and their size varies – from small to bigger farmers. Share cropping is a common phenomenon. The cost of production for each farmer, on average, is around PKR 2/kilo. Farmers either sell their commodities to regional traders/commission agents or directly to the *mandi*, the local wholesale markets. In seasons of low production, they make a profit of 1 to 2 rupee a kilo. On average, a farmer will retain 1/3 of the final retail price. Farmers are vulnerable to any kind of shock and feel it the most, even if it is a small one. The farmers are in a strong bargaining position when they can offer products during the off season. Many small farmers indicate keeping the majority of their crops for self-consumption. .

Following their displacement (the crisis), the IDPs are no longer producing and will likely have no access to their land for the planting season. They are now consumers only; buying from camp-based and local retailers in Pabbi. Households claim to have reduced their daily consumption of tomatoes by approximately half. The loss of this production (Bajur tomatoes) is an insignificant amount to the larger, Peshawar market.

Regional Trader/ Commission Agents: Regional Traders/Commission Agents usually buy produce from small farmers and sell it to the food processor or wholesaler. They usually own their own transport. If a Regional Trader is the middleman, they will buy at a lower price, reducing a farmer's profit by up to 50%. The more the farmer will be in distress, the more the Regional Trader will make money. RT will take advantage of information asymmetry between himself and the farmer and break trade barriers with better transportation. One other key feature of RT is the fact they remain mobile and look around for the best bargains.

The crisis has had little to no effect on their business as they often have many tomato suppliers in other regions.

Wholesaler: Wholesalers make money through bulk dealing. They are fewer in number, are close knitted, they trade on loans/deferred payment, well linked within the region and country. They make the most of their money through volume. They are the main supplier to both local and regional market and do not feel a sudden / small supply and demand shock – given they can adjust themselves accordingly. They supply tomatoes and other vegetables to Afghanistan. To cater for their needs, they also import from India. On average they make PKR 3-5 per kilo of tomato. Most of the wholesalers are based in around 4 mandis in Peshawar, of which Sukani Mandi is the biggest one. On average, each wholesaler deals with approximately 12 MT of tomato a day.

Following the crisis, wholesalers indicate they are not affected as production in Bajur was only a small percentage of their normal volume. (not clear on the exact amount – but estimated at less than 3% and as mentioned above, they have access to importing from other regions and even India to fill any deficit)

Peshawar and Pabbi Retailers: Retailers buy their vegetable products mostly from wholesalers. They are many in numbers and make a profit of around 4 to 5 rupee per kilo of tomatoes.

Peshawar Households: Households buy their perishable products (e.g. vegetables) on daily basis or/every second day instead of a one-off purchase during the start of the month (e.g. like Sugar, flour). By the time the tomatoes make it to the kitchen table, it has become on average, 3-5 times the production cost to the farmer. Any change in supply is immediate felt at the household level through an increase in price. HHs have the flexibility to adjust their demand and also alter their consumption pattern (e.g.; yogurt instead of tomatoes).

Transport: Transporters are a key feature in the vegetable market. Their asking prices are affected by increase in oil prices and a demand for their services. During peak /harvesting season, they ask for more fare as compared to other seasons. On average, it cost PKR 1 / KG of tomato to transport from farm to mandi to retailer.

Roads, vehicles and the necessary infrastructure for efficient transport appears to be in place and functioning. Security conditions can, at times, result in alternative routes of transport and also smaller, less conspicuous methods of transport such as donkeys and carts.

Food Processor: They are fewer in number, they buy in bulk quantities / low quality and they buy during the harvesting season. In total, they take between 10-15% of the tomato production from this area. They add value to the products by making paste, sauce, pickles, drying or other.

IDP Camp Retailers: IDP Retailers are fewer in numbers and enjoy a kind of monopoly in the market by establishing a single and set price. They buy their vegetable products mostly from wholesalers in Peshawar or bigger traders in Pabbi. These appear to be opportunistic salesmen – none claim to sell vegetables beforehand. They agree on a common price and often share transport from the main wholesale market in Peshawar.







Following their transport costs, it appears the camp retailers make a profit of around 7 to 10 rupees per kilo of tomatoes. They deal with low volume, however, and indicate they compensate for low trade volume, they charge higher prices, as much as 33% above the retail prices in other locations. The most profit for the camp retailers is made when renting a vehicle/transport and buying in bulk from the Peshawar wholesale market (mandi) rather than retailers from Pabi.


IDP Households: Some of the IDP households buy their perishable products from IDP venders. They also buy from venders in Peshawar or Pabbi whenever they visit these towns. The transportation cost to the towns and mobility constraints are major hurdles which forces them to buy from camp retailers where they higher prices than city HHs.

Other Actors/Factors: There are other actors like Tarnab Farm, a state-run, agricultural center that provides quality seedlings, saplings, agricultural extension services, research and trainings. FATA Secretariat (FS), Commissioneraite of Afghan Refugees (CAR); Seed and Fertilizer Supplier and other factors like weather, product quality which affect the market map. In case of Tarnab Form, they are a major actor in terms of technical support provision. In case of FS and CAR, they have to play a major role in terms of provision of services and support to IDPs.

5.2. Seasonal Calendar

Crop Calendar for the Major Crops / in Bajur, Mumand, Peshawar												
Crop / Fruit / Activity	Rain Season		Mar	Apr	May	Jun	Jul	Mansoon	Sept	Oct	Nov	Rain
	Jan	Feb						Aug				Dec
Rain Season												
Wheat						Harvesting						Sowing
Maize				Sowing					Harvesting			
potatoes		Sowing							Harvesting			
Re-forestation timber seedlings		planting										
Peas									Sowing			Harvesting
Labour(wages)												
On farm labour												
Holidays-Ramazan (2009)	☺		☺		☺			☺	☺		☺	☺
Temperature	15-20c	20c	30c			35c				25c	25c	15-0c
Cattle sales												
Schools holiday		Bajur					Mohammad					
Floods												
Drought												
Firewood Demand - Bricks (following rains)												
Firewood Demand - Tobacco Drying												
Firewood Demand - Heating												

	Sowing	
	Conflict - start	
	Harvesting	
	Temperature	
	On farm labour	
	Flood	

	Holidays
1-Jan	New Year
6-7 Jan	Yourn-a-Aashoor
5-Feb	Kashmir Day
9-Mar	Eid e-Melad-al-Nabi
23-Mar	Pakistan Day
1-May	Labour Day
14-Aug	Pakistan Independence Day
21-22 Sep	Eid Ul Fitr
9-Nov	Iqbal day
27-28 Nov	Eid-ul-Adha
25-Dec	Christmas
26-27 Dec	Yourn-e-Aashoor

Peshawar Seasonal Calendar for Tomato 2008 - (Approximate Prices)												
Crop/Fruit	Jan	Feb	March	April	May	June	July	Aug	Sep	oct	Nov	Dec
Tomatoes						sowing			Harvesting			
Cost of Production/kg(In PKR)	2	2	2	2	2	2	2	2	2	2	2	2
Trasportation Cost (In PKR)at e	1	1	1	1	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.2
Final Prices Per KG(In PKR)	Medium			High				Low			Medium	
Local Tomato Stock Availability	Medium			Low				High			Medium	
Labour Supply*	Medium			Medium to Low				Low				
Labour Demand	Low			Medium	High	Medium		High	Medium	Low		
Actual Prices/kg-Farmers(In PKR)	5	8	10	25	35	40	35	40	2	2	4	5
Actual Prices/kg - Wholesalers(In PKR)	8	11	15	30	40	50	40	43	3	5	7	8
Actual Prices /kg- Retailers(In PKR)	14	15	20	35	45	60	50	45	5	6	8	14

*Declining Labour Supply due to repatriation of Afghan refugees

5.3. Market Conduct/Performance

The vegetable market system is pretty efficient – in terms prices, supply and demand. There is no apparent monopoly at either producer, supplier, vendor or retailer end (except for tomato retailers inside the IDP camps). Given there are many transporter in the market, they too can ask only for a fair price. The farmers have a choice to sell their products either to a wholesaler or commission agent and their choice depends on how much they have to sell and if it is worth their time to take the tomatoes directly to the city. The number of producers and suppliers ensure the market maintains competitive prices.

The main inefficiency with this product is the seasonal changes in demand and supply - both affecting the price. In case of tomato market, in harvesting season, the prices go down to as low as PKR 15 / kilo, whereas the peak season, it can reach up to PKR 60 / kilo. Efforts could be made (in a development or recovery context) to improve farming and gardening skills for off season production for more price consistency.

Also, farmers and vendors indicate that producers are not always linked with producers or food processors – resulting in unplanned production with unmarketable quantities that rot in the field or farmers sell at a loss.

On the other hand consumers have a choice to buy from different vendors. They can also choose between different qualities of tomatoes. Depending on high and low season – which can be in terms of demand or supply – the price varies but is usually pretty consistent throughout the market. In our opinion, none of the actors both markets are marking an abnormal profit. The only actor we see who is off the map is the vegetable retailers in the IDP camps who are charging an abnormally, high price – probably taking advantage of the fact that some IDPs cannot travel to the city. However, given their high price, they are also getting only 1/10 of the total demand inside the camp. The vendors in the camp make up for their low volume of sales by high profit margin.

There are no restrictions on vegetable movement across the district, provisional and national boundaries. During high demand season for tomatoes, it is been imported from India and Sindh province to NWFP. Similarly NWFP wholesalers cater for the market in Afghanistan.

6. Analysis – Qualitative Data

6.1. Key findings - Households

- Typical family spending about Rs800-Rs1000 on tomatoes – monthly. Almost 18-20% of their current, post-crisis income. (tomato consumption: .5kg/day)
- Typical family (8pax) used to consume an estimated 1kg of tomatoes/daily. Now this has changed to .5kg.
- Farmers do not necessary always make money, they loses as well pretty heavily during bum crop/harvesting season. Most report losing part of their tomato crop this year – and their entire wheat/maize crop.
- Some families are still going back to their forms to sow wheat crop – depending on their relation with Taliban (were they part of LASHKAR).
- In Bajour major crops are wheat, maize, vegetable and fruits. In vegetable they mostly cultivate Onion, potatoes, tomatoes, pumpkin, chilies etc. Farming and small business are the main source of livelihood before this conflict.
- Average size of the family is six to seven persons. Most left Bajaur in distress – with no or little belongings
- Many Bajur farmers migrated to other districts. Movement in these areas in not easy. Agriculture activities has not been carried out in proper time ,till harvesting and threshing of maize has not been done in most of the villages.
- Many indicate that family members who were migrant labour returned from work to assist and protect family in camps. Resulting in less HH income. (temporary)
- In general, there are many negative coping skills observed and reported in the camps including: kids are not going school – so that they can fetch firewood, reduction of vegetable consumption, begging, desperate sales of family livestock at a low rate, reliance on remittances, charity and loans etc. All will have long-term effects on the community.
- People sold there livestock as a coping mechanism. Very few managed to bring them to the Camps – but there does appear to be some – including reports of limited milk sales within the camps.
- Milk and eggs appears to be main part of consumption before crisis. It was provided by self owned cows and chicken. This is not the case any more. Eggs are no more part of the food basked, and milk is considered a luxury item in current food basket.

7. Tomato Market – Key Findings

- Gap Analysis (supply market): 379MT/month. Actual monthly market activity in Peshawar area is over: 21,600MT
- Analysis of volumes of tomatoes in the Peshawar area (January):

Qty (daily) MT	Destination	Notes
200	Afghanistan and northern FATA area	Usually shipped in 8-10 tonne trucks
420	Local Peshawar	
0.04	Jalojai camps	
80 - 100	Processors	Processors are inconsistent buyers.
720MT	Total Peshawar volume	
2.5 MT	Jalojai camp daily needs (1kg/day/HH)	

- Gap Analysis (income market): Loss of Rs600/month per HH in self-grown/consumed tomatoes. For the entire Jalojai camp, this is a loss of over Rs.1,500,000/month.
- Tomato production most profitable in June, July, Aug (60rs vs 5 rs) (During dry months, need low tech strategies to save water)
- Bajour is the most fertile land in FATA. The cultivatable land is 75800 hectares. FATA is contributing 76% of total vegetable production of NWFP.
- Farmers on average receive 1/3 of final retail price. M. Map
- In Bajour there are no formal institutions providing credit facility because most of the time they don't repay. They mostly borrow from their relatives, shopkeepers etc. Loans are available – but higher principle amount need to be returned (thus avoiding the concept of interest)
- Tomato production most profitable in June, July, Aug (60rs vs 5 rs) (During dry months, need low tech strategies to save water)
- Not many food processors around. Those who are they buy low quality products during harvest season at market/below market rate.
- Linking with food processor said not to be likely as IDPs can not produce sufficiently large amount. Kitchen gardens in camp would likely be for self-consumption for first year. .. would take time for it to be a profitable, business venture. Food processors generally buy low quality products during low price season.
- Agricultural Extension Services: Technical capacity is available at local level and training and seeds can be provided at the camp
- There are some reports of the Livelihood development Program (LDP) has distributing seeds and tools for kitchen gardening in Jalojai Camp – but are unconfirmed and appear to be random distributions, at best. No training or extension work.
- Vegetable farming is an activity associated with women. Within a camp purda, it is possible to undertake vegetable farming.

- Vegetable prices in open market in Bajaur are said (in a normal year) to be higher than Peshawar. However as most people were not relying on it because of self-production, and it has low impact on them.
- Bajaur HHs report they used to dry tomato for off-season usage.
 - Influx of Bajaur has not been felt by the Market - rather the departure of Afghan refugees from Jalozai has a negative impact on demand. We might be seeing a cancelation effect by the two (around 200K Afghans left and 25K IDPs arrived)
 - When asked, People (vendors in mandi) were not worried about new farmers' entry into the market (2500 HH through a kitchen garden program)- for all of them they were too small to be a player.
 - Oil resulted in an increase in transportation cost over the last years.
 - People use Peshawar Mandi for bulk purchases.
 - Afghanistan is the main export destination for Peshawar-area tomatoes
 - Some people started off-season vegetable production – but not many/insignificant.

8. Analysis of Quantitative Data

Changes in the Numbers of Market-actors

- No major change here as Bajaur farmers (2500 HH) were not great suppliers of tomatoes to the market before the crisis. (self-consumption) Not clear how many (if any) were significant suppliers to the large, tomato market.
- Handful of small, tomato retailers opened in Jalozai camp.
- Middlemen, transporters, wholesalers and producers appear to be the same.

Changes in the Volume of Production and Trade

Changes in Prices

- Tomato prices are inconsistent throughout the year – depending on availability and quality. Prices now appear to be on track with normal years.

Availability (Stocks and Lead Times)

- Bajaur did provide some tomato supply in the past – but the impact will be visible next year. The conflict this year started after the peak season of Bajaur supply already passed. We expect this to be minimal and not effect pricing and stocks.
- Influx of IDPs has had a very small effect on the market (supply market). .. Current consumption is estimated at .8% of the current market activities with Peshawar tomato market. (supply market)
- The tomato needs (averaged **at the normal, 1kg/day** per HH) represents about 1.4% of the entire, Peshawar/NWFP tomato market. Very small – we assume this production would have very little effect on the larger market. (income market)

Qualitative Impacts on the Market-System

- In this case, the impact appears to have a very little effect on the overall market system. Very large quantities of tomatoes are produced and transported through Peshawar and the production/consumption amounts by these, targeted, 2500 HH in Jalozai camp are a very small percentage.

- The biggest change is that production for self-consumption has stopped and IDPs are away from their stocks. .. the causing a massive change to their HH expenses.

Impacts on particular market-actors, system linkages and relationships

- No changes observed

Impacts on services and infrastructure

- No changes observed

Changes to institutions, rules and norms

- Commission on Afghan Refugees (CAR) would support initiatives (such as gardening in the camps) to supplement food distributions and provide IDPs with saved income or income opportunities.
- Local NGOs and institutions willing and capable to do ag. extension work can be activated with the recent crisis.
- Farmer IDPs will remain in the camps for the foreseeable future. .. likely to miss next planting season.

Changes in Market Conduct (Competition & Market Power)

- None noted or reported

Supply-side' and 'Demand-side' Problems

- The problem is not supply/demand on a large scale – but definitely a demand problem related to resources and purchasing power.

9. Key Analytical Questions

1. Can the current Peshawar market supply sufficient vegetables to meet the needs of the 2500 HH IDPs (200,000 pax) in the Peshawar area?
 - **Yes. Would require more purchasing power from IDPs. Would require more access/competition in the camp retailers – or more access to Pabi and Peshawar markets.**
2. Could increased supply of vegetables from the IDPs be accepted in the Peshawar market? (calculate at 10m² tomatoes)
 - **Yes. Although estimated yields are now only predictions, we are confident the Peshawar market could absorb more tomatoes. (as seen by Indian imports)**
3. What will production of vegetables in kitchen gardens by the IPDs do for their income? (calculate at 10m² of tomatoes)

10. Response Options

Response option	Feasibility to implement Advantages/disadvantages?	Timing
<p>1. Entrance of new vendors inside camp.</p> <p>Small, in-kind donation (materials to initiate small shop in place of cash). One-time grant from IRC to EVIs.</p>	<p>Feasibility: High</p> <p>Advantages: Need in market is apparent. Technical skills already exist. Market space in camp exists. No restrictions on new entry to market (some bribes)</p> <p>Disadvantages: Market (camp level) will be distorted. Not all EVIs could equally participate. Some may have no sense of business – potential to fail. Too many EVIs to give everyone opportunity – further targeting required. (limited scope and scale)</p>	<p>1 to 2 weeks for return on project to HH</p>
<p>2. Kitchen Gardening (seeds, training, tools, linkages etc)</p>	<p>Feasibility: High</p> <p>Advantages: Large scale and scope is possible. Potential for both saving and income. Indirect benefit of higher nutrition. Has potential to reach women. Can be easily integrated to other projects (market linkages, return activities, etc). Transferable skills. Fits within the existing market system – no negative impacts. (only 5% of NWFP regional tomato trade) Supported by: HCR, IDPs, OFDA, CAR, Fits within physical Purdah structure. Technical skills locally available with farmers and institutes. Would be both supply & income market possibility. Requires a long term, 5-year strategy</p> <p>Disadvantages: Will take at least a season for impact and results. Other NGOs may overlap. Potential land issues? Some vulnerability from: Peshawar climate, behaviour change (water and compost) and new techniques. Timing with upcoming season – constraints on pilot.</p>	<p>3-4 months</p>
<p>3. Transport Services – Free or subsidized Bus service to Pabbi or Mandi – from camps.</p>	<p>Feasibility: Medium Low</p> <p>Advantages: would make <u>all</u> products more accessible at lower rates – impact multiple market systems. Including other social, health and education services. Incentive to integrate.</p> <p>Disadvantages: Difficult to control. Cost intensive. High liability! Potential security risk (pvt IRC buses could be targets) Does not bring cash in to the camp economy. .. only saves some cash. Would only have a social affect men (less travel for health services). Benefits are managed in savings – not increased income or market activity. Few secondary beneficiaries in the camps.</p>	<p>1-2 weeks</p>

Response option	Feasibility to implement Advantages/disadvantages?	Timing
<p>4. Encouraging Wholesaler to sell twice in a week in Jalozai.</p>	<p>Feasibility: Medium</p> <p>Advantages: Lower price / Greater savings to camp HH; Linkages to HH for future sales, employment opportunities (limited) Might increase vegetable intake due to lowered price.</p> <p>Disadvantages: No incentive to sell at same, low rate. May not be worth his time when considering time, fuel etc. No guarantee of sales. Money will go out from camp .. so not secondary or tertiary beneficiaries in the camp or to the market system. Will cut out the retailers in the city and camp.</p>	<p>1-2 week</p>
<p>5. Open fair price shop in the camp – managed by IRC.</p>	<p>Feasibility: Medium</p> <p>Advantages: Low price – high quality products.</p> <p>Increased tomato consumption/nutritional intake. Self-sustainable? could eventually be linked to EVIs or an EVI NGO for management. Could be modelled after Oxfam shops and fair trade initiative. Could make tomatoes available on market at roughly half the current price.</p> <p>Disadvantages: risk of improper business management, heavy on administration, difficulties in administering a business; local retailers will likely be hurt. We disrupt the value chain.</p>	<p>1-2 weeks</p>
<p>6. Availing the non-cultivating land for IDPs; making agreement with government to temporarily award land to IDPs</p>	<p>Feasibility: Low</p> <p>Advantages: Better productive use of land, high in scale and scope. Works off of existing skills, produce would likely integrate well with local market, training on transferrable skills, close proximity to camps, multi-purpose (firewood) could meet savings and income needs for IDPs</p> <p>Disadvantages: IDPs will never go home/permanent occupation of land, may not be a rain-fed area – irrigation areas, environmental impact, lack of government cooperation, non-inclusion of women, difficulty in dividing up land to IDPs, difficulty in clearing land for the initial crop</p>	<p>6-8 months</p>

Response option	Feasibility to implement Advantages/disadvantages?	Timing
7. Cash / Vouchers	<p>Feasibility: Low</p> <p>Advantages: empowers HH with more choices; more shops likely to open; possibility of more market integration with Pabi and Peshawar, more money circulating in the camp – will stimulate other businesses. CfW program, may not be appropriate in the camp if our goal is to restart productive livelihoods activities (few economic activities available). Limited CfW activities in a camp.</p> <p>Disadvantages: fraud is easy, could cause inflation (limited vendors and limited access to camps), difficult to monitor, supporting monopolies, no exit strategy – unless linked to access to capital intervention</p>	1 month
8. Vegetable distribution	<p>Feasibility: Easy – but not a likely/smart program</p> <p>Advantages: Easy to do, market is able to absorb/provide the quantities needed. (only 5% of NWFP tomato trade) Quick results – impact to health, nutrition, income etc.</p> <p>Disadvantages: Local markets (in camp and Pabi) would be negatively effected; Logistical NIGHTMARE as items are perishable; storage/warehousing required; Trucks required, distribution staff, no exit strategy</p>	1 month

11. Response Recommendations

OUTPUT Response Recommendations (including response combinations)				
ACTIVITIES	Key assumptions & risks	Timing issues	Likely impact (on market-system, & affected groups)	Indicators
Kitchen Gardening: -training -input distributions -water management	People have the skill and interest. They will stay for 4 months at least. Weather is favourable. Water and space is available. Purdah will be completed by the project start up. The Government, camp management and CAR will have no objection. Money, and training resources are available with the IRC and in Peshawar. Seed distribution take place in time. We have access to the required technical skills.	Training materials. Translated, Training the CDOs. Partnering process 3-4 months to set up facilities, transport and employ people Must meet the planting season.	Three main beneficiary groups. 1) The households they will have more to consume and extra to sell (up to Rs 1000/month) 2) Shop keepers will have easy access to tomatoes and other vegetables from IDP HH. (cannot say what excess will be) 3) Cheaper tomatoes to other HHs. (through barter etc) Not sure on qty 4) increased nutrition 5) skills transferred 6) Reduce HH income spent on vegetables 7) Empowerment of women	BASELINE: - No. of People having functioning Kitchen Garden at their homes Logbook - No of people selling their vegetable products in the market. - Amount of saved income due to vegetable production. - % difference in the mandi and camp vegetable price. – monthly survey - Linkages with food processor, vendors etc developed. - No. of People storing their products for future consumption. - No. of women involved in the kitchen gardening activity. - Change in the Calories Intake. - Change in the tomato and other vegetable consumption after introduction of kitchen gardens.

OUTPUT Response Recommendations (including response combinations)				
ACTIVITIES	Key assumptions & risks	Timing issues	Likely impact (on market-system, & affected groups)	Indicators
Entrance of New Vendors through disbursement of small grants and business development training. (EVis targeted)	Camp management is supportive of small vendors. EVIs are able and want to sustain business in camp. EVis stay in camp.	1-2 weeks to identify the beneficiary and disperse the grant.	EVis will have a source of livelihood. HHs will have goods available to them at a cheaper price.	<ul style="list-style-type: none"> - # of new the IRC supported vendors in the market. - # of functioning new IRC supported vendors - Change in the mandi and camp vegetable price. - # of people employed. - Change in the household consumption in the EVI retailers' households. - % of household income increased.

11.1. Monitoring Plan

Based on the Step 8 response recommendations matrix a project strategy will be established. This matrix identifies activities, risks and assumptions, impact and indicators, all of which will be included in the project strategy or logical framework (logframe).

Therefore, the EMMA assessment will become a part of the project, with the initial EMMA creating the baseline of many of the indicators and helping to establish monitoring tools. A performance monitoring and evaluation plan will be developed from a project logframe in the proposal stage but specifically, we envision that the measurable indicators of EMMA will include:

Indicator	Means of Verification
% Monthly expenses for vegetables in a typical HH	HH econ survey at 6 mo and 12 mo. Measured against baseline (EMMA Jan/Feb 2009)
Quantity and quality of vegetables produced/sold per garden per yield (baseline 0)	Measured using logbooks kept by 30, program participants.

More program specific indicators (not necessarily EMMA related) can be found on the program logframe.