Workshop Report

Training on Citizens Tool for Community Monitoring of Highly Hazardous Pesticides (HHPs) Use and Impacts to Health and Environment in Flower Farms

Naivasha Lakeview Resort, Naivasha, Kenya

27th November, 2015
ACKNOWLEDGEMENT

This assignment would have not been possible without the financial assistance from Developing World Outreach Initiative (DWOI) and for which CEJAD remains sincerely thankful. The incredible contribution of our grassroots partners, Kenya Plantation Workers Union (KPWU) in identifying and mobilizing workshop participants was inevitable in the success of this workshop. We are therefore indebted to the union. The role of the Public Health Office, Naivasha sub-county, through Mr. Ezekiel Bowen – a public health officer, in providing a critical review of the training materials and methodology cannot go unnoticed. We sincerely appreciate all the workshop participants who out of their busy schedule purposed to attend the workshop and actively contributed ideas and hence the success of the workshop. Lastly, CEJAD applauds its lean but dedicated staff who worked through the constraints of limited resources and time to organize and run the workshop.
1. **Background**

The flower industry is one of Kenya’s top foreign exchange earners. It contributes to the country’s status as a leading African economy and provides a source of income for many Kenyans. The industry has however been the focus of extensive media and academic research attention regarding its impact on workers' livelihoods, environmental sustainability and on the Kenyan economy. For example, flower farms have been accused of diminishing Kenya’s already scarce water resources (particularly in Lake Naivasha), poisoning water supplies by the dumping and leaking of pesticides and chemicals and human and worker rights abuses.

Naivasha region of Kenya is home to a wide range of horticultural industries. The large number of horticultural farms in the area means a higher rate of pesticide and chemical use in the area. The abuse and misuse of pesticides can be attributed to factors such as illiteracy, inaccessibility to reliable protective clothing, limited monitoring and general poverty, as well as a weak monitoring framework on the same.

Workers in flower farms have been exposed to poor working conditions that have reduced their productivity. Some workers have become sick as a result of poor human safety related to handling chemicals. The acute dangers of pesticides use are highly variable depending on the type of pesticide and the level of exposure. Chronic exposure to highly hazardous pesticides can result in effects on skin, eyes, nervous system, cardiovascular system, gastrointestinal tract, liver, kidneys, reproductive system, endocrine system and blood.

Pesticides were found to affect the health of the users and therefore training on safe and effective use of pesticides can significantly reduce the likelihood of the farmers' misuse of pesticides. Training increases the level of farmers' and workers information knowledge when using the pesticides.

2. **Objectives of the Training Workshop**

The overall objective of the training was to educate flower farm workers and other affected populations on the community based monitoring approaches for monitoring the use and effects of pesticides to human health and environment. Specifically, the training aimed at achieving the following objectives:
1. Empower the flower farm workers to monitor the use of highly hazardous pesticides and their effects to the health of the workers and environment

2. Create a self perpetuating community based monitoring system for monitoring the use of the highly hazardous pesticides and reducing the adverse impacts associated with their use in flower farms in Kenya.

3. Participation

The training brought together participants drawn from flower farms and other stakeholder organizations, made up as follows:-

- Flower farm workers from various flower farms in the area
- Government Health Ministry (public health officer from Naivasha sub county hospital)
- Kenya Plantation and Agricultural Workers Union (KPAWU) officials
- CEJAD staff

4. Workshop Approach

The training was a one day event held on 27th November, 2015. The workshop was participatory in nature and activities comprised both presentations and plenary discussion sessions (See annex). The training involved the following approaches and methodologies.

- Use of visual aided presentations (power point presentations, pictures) to give the trainees (ToTs) an in depth understanding of each and every topic to be adopted.
- Participatory methods (plenary discussions) for the participants

5. Workshop Proceedings

5.1. Opening – remarks from Griffins Ochieng-CEJAD

The opening of the workshop was conducted by Mr. Griffins Ochieng, CEJAD’s programmes coordinator. Mr. Ochieng welcomed participants and appreciated their presence and thanked them for making it to the meeting to participate in the important training which seek to promote the use of community based approached in monitoring the use and impacts of pesticides to human health and environment, an initiative pioneered by CEJAD in 2014 by CEJAD with support from Global Greengrants Funds (GGF). The initiative of training flower farm
workers originated from and was recommended by the community and was conceptualized by CEJAD.

In his remarks, he pointed out that throughout the project and after, CEJAD has been working closely with the Ministry of Health in matters related to chemicals, specifically on educating the community in Naivasha on health and environmental impacts of pesticides.

He briefly explained the environmental effects of various chemicals citing 2013 rapid survey conducted by CEJAD where it found that pesticides misuse and adverse impacts to workers health and to the environment, this was due to by weak laws enforcements and monitoring. The monitoring tool was developed in 2014 after the survey to help empower the community to self monitor usage of banned pesticides and other dangerous chemicals as well as the effects of such pesticides to their health and environment and aims at empowering the community to gain relevant and up-to-date knowledge on various pesticides.

He stated that CEJAD seeks to partner with the community members especially the flower farm workers to help implement the citizens monitoring tool. In furtherance to seeking community partnership, he explained that the citizens monitoring tool would help impart relevant knowledge to the community on matters regarding chemicals and on handling and using the chemicals with specification to pesticides. The training, therefore, aims at building the capacity of the participants in form of Training of Trainers to help scale out the skills gained to other flower farm workers represented in the workshop. This, will eventually help reach out to the maximum number possible.

The main target of the training was those working in flower farms since they deal with chemicals on an almost day to day basis. He highlighted that the role of CEJAD is to promote chemical safety guided by the following objectives;

- Provide relevant information on various chemicals
- Capacity builds communities on handling and usage of chemicals.
- Link the grass root organizations to the international arena and to the Government.
5.2. Presentation on Highly hazardous pesticides, characteristics and impacts to human health and environment and National legal and regulatory frameworks for controlling the production, use, spraying and disposal of pesticides: by Ezekiel Bowen;

The topic on HHPs characteristics and health impacts was facilitated by Ezekiel Bowen, public health officer at Naivasha sub district hospital. This topic underscored the toxicity of highly hazardous pesticides and their harmful effects to human health and environment. For example, of the 900+ active ingredients currently in use globally, 86 are classified by the WHO as being Extremely Hazardous (Class 1a) or Highly Hazardous (Class 1b).

The presenter also informed participants on the pesticides listed under the Rotterdam Convention on Prior Informed Consent, the Stockholm Convention on Persistent Organic Pollutants (POPs), and the Montreal Protocol on Substances that Deplete the Ozone Layer, and that there are approximately 120 pesticides that are widely agreed to be highly hazardous to human health and the environment.

The presenter also covered the topic on legal and regulatory controls for HHPs. For example, he informed participants that apart from the national laws, HHPs is covered under The FAO/WHO International Code of Conduct on Pesticide Management, released in 2014, is a framework that guides governments and other relevant stakeholders in the sound management of pesticides throughout their life cycle.

It came out also that Pesticide regulators take into account the conditions of sale, storage, use and disposal of pesticides in their country. In some cases, regulators may find problems with pesticides which are not listed by any of the instruments in the HHP criteria. In these cases, the final criterion indicates that regulators can decide a pesticide is an HHP if it shows a high incidence of severe or irreversible adverse effects on human health or the environment.

Plenary Reactions/Discussions

The following were the main issues that arose from the reactions and discussions held in plenary on the topics.
It was pointed out that the there was no initiative by the Government regarding handling and usage of chemicals and on the action to take in case of chemical infection while working for the farms and in case such existed then the workers were not aware.

It was noted that some chemical infection cases go unreported hence making it not easy to claim for compensation or take a legal action.

It came out that the tool was the best approach to be used in accessing confidential and reliable information on usage of pesticides in the flower farms.

There is laxity among employers in helping their workers in case of infection from the chemicals they use at work.

The presently practiced procedure of chemical infection diagnosis or examination is inefficient according to the participants.

It was suggested that, a Material Safety Data Sheet (MSDS) to be established to help contain information on various chemicals which will hence guide when and how to take precautionary measures and it will also help in developing periodic medical reports.

It was made known that the Naivasha sub county health office is conducting a profiling of flower farms in Naivasha and is likely to be completed in February 2016. The profiling process encapsulates workers’ health concerns.

Identified areas of weaknesses calling for intervention measures;

- Weak monitoring measures on pesticides within the flower farms
- Getting the social acceptance from workers to help implement some initiatives such as the ‘rotation rule’ especially for sprayers in the flower farms was pointed out as a challenge since the sprayers are paid a little higher thus some workers are unwilling to obey the rotational rule.
- Changing a company’s diurnal routine of operation in implementing some of the initiatives is a challenge.
- The need for creation of awareness on the chemicals and workers’ rights needed to be fuelled up according to participants.
Photo 1: Mr. Ezekiel Bowen, Public Health Officer, Naivasha sub district hospital making presentation at the workshop. (Photo credit: CEJAD)

Photo 2: Mr. Griffins Ochieng, CEJAD making opening remarks during the workshop. (photo credit: CEJAD)
5.3. Presentation of the Citizens Monitoring Tool for Community based approaches to monitoring the use and impacts of pesticides: by Aron Kecha-CEJAD

The tool on citizens monitoring tool was presented and introduced to the workshop participants by Mr. Aron Kecha on behalf of CEJAD. In the presentation, he gave a background of the tool development, pointing that the tool was developed through a participatory process involving a team comprising of flower farm workers, fishermen, community leaders, community health volunteers among others that was established as a community monitoring team under the project implemented by CEJAD in 2014.

In the presentation, it was also pointed that the tool was mainly developed to promote community based approaches for pesticides use and impacts monitoring and is to be used as guidance to help the citizens take action as agents of change in monitoring the use and effects of HHPs to human health and environment within their surrounding communities. It was pointed out that the initiative was pioneered by CEJAD drawing from the successes learned from Community Pesticides Action Monitoring (CPAM) that was implemented in Asia. This was initiated in response to problems identified by communities during a rapid assessment carried out in 2013 that pointed to weak enforcement and monitoring of laws on the part of authorities due to various factors such as inadequate resources and capacities among relevant government agencies.

In the presentation of the tool, he pointed that the tool is divided into 3 steps namely;

a) Identifying the team members and key stakeholders that should take part in the development of the monitoring process

b) Identification of the pesticides being used in the horticultural fields in the area. Look at the container of the pesticide, active ingredients, manufacturing company and country of manufacturer.

c) Identifying symptoms of pesticides poisoning as a result of exposure. Different pesticides cause different reactions, so attention can be given to those which causes immediate impacts to organisms they are exposed to and also to long terms effects that has been
However, he pointed that the first step was an exercise that involved brainstorming with the community monitoring team to come up with the relevant members to be involved in the development of the tool. The other two steps he noted that are guidance to self monitoring tool (see annex).

**Plenary Discussion**

The following were the main issues/reactions from the discussions held after the presentation.

- The tool is to be used by the trained trainers to help capacity build other flower farm workers on matters chemical.
- It was emphasized that the monitoring process is a citizen’s driven activity that is voluntary and should be a continuous process only to help document and record cases of pesticides misuse and effects such as poisonings especially to health and environment
- Illiteracy level/lack of proper education among the farm workers was mentioned as the major potential challenge in implementing the tool.

*Photo 1 & 2: A participant explaining a point during plenary and a section of the participants during the workshop* (Photo credit: CEJAD)
6. **Way forward and Workshop Closure**

Mr. Griffins Ochieng on behalf of CEJAD provided the closing remarks. He pointed that CEJAD is keen to ensure that the initiative of promoting community based approach for monitoring the use and effects of HHPs using the citizen’s tool is sustained. CEJAD would seek more partners to realize this objective and promised it will strive to engage all stakeholders including flower farms management and government to ensure that workers and communities in Naivasha are protected from the use and effects of harmful chemicals such as HHPs. As a way forward, the following were agreed by all participants:

- The training outcome was agreed to be shared with other flower farm workers not in attendance to help reach out the maximum number possible.
- Any relevant information likely to arise in the tool’s implementation process is to be channeled through the Kenya Plantation and Agricultural Workers Union (KPAWU) offices, the representative of the workers who are partnering with CEJAD. KPAWU would then collect the information collected from the use of the tool and provide to CEJAD which would then process the information and engage the relevant bodies or agencies.

In closing, he thanked all the participants for their presence, active participation and enthusiasm throughout the workshop proceedings.
## 7. Annexes

### 7.1. Annex 1: Programme/Agenda

**FRIDAY, 27<sup>TH</sup> NOVEMBER 2015, NAIVASHA LAKEVIEW RESORT**

<table>
<thead>
<tr>
<th>Time</th>
<th>Topics</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.30 – 9.00 am</td>
<td>Registration, Welcome and Introductions</td>
<td>30 Minutes</td>
</tr>
<tr>
<td>9.00 am – 9.15 am</td>
<td>Purpose and overview</td>
<td>15 Minutes</td>
</tr>
</tbody>
</table>

**Session one:**

**Topic 1: Highly hazardous pesticides, characteristics and impacts to human health and environment**

<table>
<thead>
<tr>
<th>Time</th>
<th>Topics</th>
<th>Duration</th>
</tr>
</thead>
</table>
| 9.15 – 10.00 am | • What are HHPs  
• Their characteristics  
• Impacts to human health and environment | 45 Minutes |
| 10.00 am – 10.30 am | Question and Answer session                                           | 15 Minutes |
| 10.30 – 11.00 am | **Health Break**                                                       |            |

**Topic 2: National legal and regulatory frameworks for controlling the production, use, spraying and disposal of pesticides**

<table>
<thead>
<tr>
<th>Time</th>
<th>Topics</th>
<th>Duration</th>
</tr>
</thead>
</table>
| 11.00 am – 11.45 am | • What are the rights of workers  
• What redress mechanisms exist in law for workers  
• What is the role of flower farm management vis a vis workers in managing pesticides | 45 Minutes |
### Session two

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.45 – 12.30 pm</td>
<td>Questions and Answers</td>
</tr>
<tr>
<td>12.30 – 2.00 pm</td>
<td>Lunch</td>
</tr>
</tbody>
</table>

#### Topic 3: Community based approaches to monitoring the use and impacts of pesticides

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
</table>
| 2.00 – 3.00 pm | Participatory and communicative methods –
  • Presentation on the citizens tool |
| 3.00 pm – 3.30 pm | Plenary                                                                  |
| 3.30 – 4.00 Pm | Way forward and Closure of workshop                                      |
### Annex 2: List of Participants

**Training Workshop on Citizens Tool for Community Monitoring of Highly Hazardous Pesticides (HHPS)**  
**Friday, 27th November 2015, Naivasha Lakeview Resort**

**Registration Form**

<table>
<thead>
<tr>
<th>NO.</th>
<th>NAME</th>
<th>ORGANIZATION</th>
<th>WHERE FROM</th>
<th>EMAIL</th>
<th>TELEPHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ferdinand Juma</td>
<td>KPAWU</td>
<td></td>
<td></td>
<td>0729514343</td>
</tr>
<tr>
<td>2.</td>
<td>Mart Kariita</td>
<td>KPAWU</td>
<td>UHLMAC</td>
<td></td>
<td>0729416941</td>
</tr>
<tr>
<td>3.</td>
<td>Mary Macereen</td>
<td>KPAWU</td>
<td>Ke-Bliper</td>
<td></td>
<td>0726711118</td>
</tr>
<tr>
<td>4.</td>
<td>Samuel Cheko</td>
<td>KPAWU</td>
<td>NRS</td>
<td></td>
<td>0722855872</td>
</tr>
<tr>
<td>5.</td>
<td>Stanley Njoro</td>
<td>KPAWU</td>
<td></td>
<td><a href="mailto:Stanley@com.co">Stanley@com.co</a></td>
<td>0723662331</td>
</tr>
<tr>
<td>6.</td>
<td>Jackson Rono</td>
<td>KPAWU</td>
<td>Kin Muria</td>
<td>KinMuria@</td>
<td>072102235</td>
</tr>
<tr>
<td>7.</td>
<td>Kenneth Kiwuto</td>
<td>KPAWU</td>
<td></td>
<td></td>
<td>0722321471</td>
</tr>
</tbody>
</table>
### TRAINING WORKSHOP ON CITIZENS TOOL FOR COMMUNITY MONITORING OF HIGHLY HAZARDOUS PESTICIDES (HHPS)
FRIDAY, 27TH NOVEMBER 2015, NAIVASHA LAKEVIEW RESORT

#### REGISTRATION FORM

<table>
<thead>
<tr>
<th>NO.</th>
<th>NAME</th>
<th>ORGANIZATION</th>
<th>WHERE FROM</th>
<th>EMAIL</th>
<th>TELEPHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Goodwin Sunda</td>
<td>KPAWU</td>
<td></td>
<td></td>
<td>0728579747</td>
</tr>
<tr>
<td>2</td>
<td>Mary Kamina</td>
<td>KPAWU</td>
<td>Shaimai</td>
<td></td>
<td>0721644691</td>
</tr>
<tr>
<td>3</td>
<td>Mary Magarese</td>
<td>KPAWU</td>
<td>Bc-Ruvier</td>
<td></td>
<td>0786711148</td>
</tr>
<tr>
<td>4</td>
<td>Samuel Shem</td>
<td>KPAWU</td>
<td>NvS</td>
<td></td>
<td>0722658572</td>
</tr>
<tr>
<td>5</td>
<td>Blanket Ndiri</td>
<td>KPAWU</td>
<td>Othaya</td>
<td>blankettediary.com</td>
<td>0723862231</td>
</tr>
<tr>
<td>6</td>
<td>Makame Bereket</td>
<td>KPAWU</td>
<td>Lmodia</td>
<td>makamebereket@com</td>
<td>0723479740</td>
</tr>
<tr>
<td>7</td>
<td>Kenneth Kweyu</td>
<td>KPAWU</td>
<td>Ongata</td>
<td><a href="mailto:kweyukeneth@gmail.com">kweyukeneth@gmail.com</a></td>
<td>0722821476</td>
</tr>
</tbody>
</table>
Annex 3: Citizens Tool

SELF MONITORING TOOL

Record Everything!

If you are exposed to and/or experience pesticide poisoning, record the following information as soon as possible! Keep any photos.

Make copies of the recording form for you and others to fill out, if needed.

Recording Form for Pesticide Exposure and poisoning

1. Your Name: ______________________________________________________________

2. Date of Pesticide Exposure: __________ Time of Exposure: __________ AM/PM
   Month/day/year

3. Age: ____________________  Sex: Male [ ]  Female. [ ]

4. The exposure happened while:
   a) Working  b) at home  c) other (specify) ________________

5. Location of Exposure: (Be specific! Which farm? Which section? Office? Etc.)
   ________________________________________________________________

6. Weather conditions at time of exposure: Wind (From what direction? _______ How fast? _______) Rain Other (specify) _______________________________________________

7. Did you smell or taste anything at the time of exposure? Yes [ ]  No. [ ]
   If so, what did it smell or taste like? _______________________________________

8. What pesticide was it? (If you know) Try to identify and write even in local name. Also try to identify the name of the manufacturer, manufactured in which country,
   ________________________________________________________________

9. Describe the exposure: (what were you doing? Was it a spray, or you handled the container, was it labeled? Etc)
   ________________________________________________________________
10. **Who was exposed?** (Write the names and contact information of all people you know who were exposed)

Name ___________________________ Contact info: __________________

Name ___________________________ Contact info __________________

Name ___________________________ Contact info __________________

11. **Have you experienced or saw already other pesticide poisonings in the past?**

Yes [    ] No [    ]

12. **What symptoms did you and others experience?**

Diarrhea .......................Yes ..........No

Dizziness .......................Yes ..........No

Headache........................Yes ..........No

Burning eyes ...................Yes ..........No

Stomach aches ..................Yes.........No

Nausea/vomiting ............Yes.........No

Rash or irritation .............Yes.........No

Onset of asthma attack .Yes ..........No

Tingling or numbness of skin or mouth ....................Yes .............No

Chemical taste in your mouth, sore throat ......................Yes .............No

Difficulty breathing or shortness of breath ..................Yes.........No

Disorientation or confusion ....Yes ..........No

Allergy-like reaction (sneezing & runny, itchy nose) ...Yes ..............% □

12. **What environmental poisonings have you observed?** (Poisoning on fish, plants, animals, birds etc) Please list and explain what happened and when it occurred.