Designing the RADCON Information System

A Preliminary Guide

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Table of contents

1 Introduction

This document aims to identify the steps needed to go forward with the development of the RADCON information system based on the stakeholder analysis study prepared by Dr. Mohammed Kasem. Based on this study the need for developing the following six modules has been raised:

1. Job opportunity module
2. Women's corner module
3. Towards a clean environment module
4. Associations at the service of community module
5. Marketing information module
6. To the editor module

Each of the above mentioned modules is composed of a number of components. In this report, each of these modules and their various components are closely examined.

There are two aspects to developing each module and its subcomponents. The first is a development of a system to manage component contents and services, the second is content collection. With respect to the first, steps for system development have been outlined here whenever possible. However, for some of the identified sub-components, the requirements are still obscure. So, wherever it was not possible to specify the exact steps needed to design and develop some given component, this report specifies what still needs to be answered in order to actually have a design. As for content collection, the stakeholders analysis study has indicated which of the stakeholders can be contacted to provide content for each of the identified components. So, whenever this report calls for further information or data to be collected, the prepared study should be consulted for obtaining contact points for carrying out this task.

In the following sections, each module and what is needed for its development, is discussed;. this is followed by a section on new modules suggested by this report. Finally, a section concluding this report is presented. This section outlines the overall components of the RADCON system based on the stakeholders analysis study and by recommendations made in the presented report and presents a final set of recommendations.

2 Job opportunity module

After analyzing the components of the Job opportunity module, the first suggestion is to

rename it to Jobs and Business related Information module. The suggested components for this module are as follows:

1. Inventory of small business projects suitable for youth, and based on available resources in the village.
2. Extension modules on the "how-to" knowledge of planning, implementing, managing and evaluating small business projects
3. Extension modules on administrative procedures, licenses legislative issues needed to start a project.
4. Extension modules on the marketing mix for the project products.
5. Potential financial sources and alternatives
6. Kinds of loan available and its terms (conditions, mode of payment, interest rate... etc.)
7. Requirements demanded by the banking house
8. Loan management extension module
9. Feasibility study forms and extension module (preferably an expert system)
10. Alternative modes for dealing with banks (credit cards, e-banking)
11. Teachers guide for illiteracy alleviation.

By examining the above suggested components, it can be seen that they can be logically grouped under two sub-categories :
- Starting and managing a business (items 1, 2, 3, and 4 will fall under this category)
- Business Finances a (items 5, 6, 7, 8, 9, and 10 fall under this category)

From a system's point of view, component 11 " Teachers guide for illiteracy alleviation" does not seem to fall under this module's heading (original or modified)

2.1 Component 1: Inventory of small business projects suitable for youth, and based on available resources in the village.

The first recommendation regarding this component, is to name it to "Project Ideas Finder" as the current title is too long.

Not enough details regarding this component have been provided in stakeholders analysis study. So the following questions must be answered before the actual design can be prepared:

1. Will the inventory take place on the village level, i.e will projects for specific

villages be entered into the system, or will the collected information be relevant to any village (the writer assumes the later)

2. What are the different possible resources needed (other than money and labor)

3. It's assumed that each project will be described in terms of a minimum budget, expected profit, possible marketing venues, required resources(including labor), and a textual description. Are these assumptions valid, and what more can be used to describe this component?

Dr. Mohamed Kasem should be contacted initially for clarification of requirements, the data collection can take place. Once requirements are clarified, a database for this component should be created (this can be part of a database for the whole module). An interface for allowing youth from searching this database, as well as another for allowing content providers from updating project information, should also be developed.

2.2 Component 2: Extension modules on the "how-to" knowledge of planning, implementing, managing and evaluating small business projects

This component can be named "How to…" in RADCON's web site. The design of this component can be a straight forward one, as initially documents prepared covering the three major points of planning, implementing and managing small business projects, can be simply made available for browsing. The steps towards designing and implementing this system can be summarized as follows:

1. If the unified document repository described in section 8.2 is not to be used, then create a simple database for classifying different types of input documents. This database should store the title of each document and its location on the server as well as a classification to indicate what this document covers (ex: Project planning, implementation, management, or any combination of the 3). Specifically, this database can be composed of two tables: <Classifiers> and <Document_Details>. Table classifiers should have the following fields:

    a. cid: a unique id for each classifier and a primary key
    b. Topic_Name: The name of the classifier (ex. Project Planning, Project Implementation, etc)

    Table <Document_Details> should have the following fields:

    a. did: a unique id for entered documents and the primary key.
    b. Title: The title of the document
    c. Data_issued: the date on which this document was issued
    d. Publisher: the entity that issued this document

     e.   Number: the document's number

     f.   Location: location on server or a url

2. Determine who will collect the data and whether or not there are documents that already address these issues.

3. Convert any existing documents to HTML and store their data in the database

2. Create an interface for uploading such documents and classifying them as well as another for deleting or updating an existing entry. This will be used by the entity in charge of maintaining this component.

3. Create an interface for browsing these documents. This interface will be used by RADCON end users. The interface should access the developed database to display the list of documents categorized by topic.

As a future enhancement to this component, a search facility can be introduced to search document by textual content or to conduct targeted section search similar to that provided by the VERCON extension brochure search utility.

2.3 Component 3: Extension modules on administrative procedures, licenses legislative issues needed to start a project

This component can be named "Administrative and Legal Info." in RADCON's web site. The steps required to design and implement this component are very similar to those described the previous section and can be summarized as follows:

1. Identify possible classifications for this class of documents

2. Add identified classifiers to table <Classifiers> described in section 2.2 or table <Categories> described in section 8.2

3. Follow steps 2 through 5 in section 2.2

The interfaces developed for the previous component can also be adapted to work for this component.

2.4 Component 4: Extension Modules on the Marketing Mix for the Project Products

This component can be named "Marketing mix for the project products" in RADCON's web site. Again, the steps required to design and implement this component are very similar to those described in the previous 2 sections and can be summarized as follows:

1. Identify possible classifications for this class of documents

4. Add identified classifiers to table <Classifiers> described in section 2.2 or table

<Categories> described in section 8.2

2. Follow steps 2 through 5 in section 2.2
3. Adapt interfaces developed in section 2.2 to work with this component.

2.5 Components 5, 6, 7 and 10: Information on Potential Financial Resources

By examining components 5, 6, 7, and 10 listed below:

- Potential financial sources and alternatives
- Kinds of loan available and its terms (conditions, mode of payment, interest rate... etc.)
- Requirements demanded by the banking house
- Alternative modes for dealing with banks (credit cards, e-banking)

It can be seen that these are very closely related as the kinds of loans available and their conditions will always depend on the potential financial resources, and potential financial resources include banks and banking house. Item 10, is also very closely related to these, as the alternative ways of dealing with a bank will almost always depend on the bank itself and the services it offers. It is thus recommended that these components be merged together. Again, in order to properly formulate a design for these component, the following steps need to be taken:

1. The stakeholder analysis study has already identified a number of possible financial resources, so the question to ask is whether there are any other alternatives available?
2. For each identified funding resource obtain details about:
   - The conditions and requirement for applying for a loan
   - Various modes of payment
   - Interest rates on different loans
   - The alternative means for dealing with this funding resource
3. Design a database that can capture and represent collected information
4. Design an interface that allows a user to browse information about various identified funding resources
5. Design an interface to allow a user to search for funding resources that have user specified features
6. Design an interface that allows for content maintenance.

2.6   *Component 8: Loan management extension module*

The requirements from this module are rather vague, but it is assumed that it will be a module that will aid RADCON users in managing loans that they've already made. Inputs and outputs to this system need to determined as they will influence database design, system operation and interface development. The exact requirements for this module need to be formulated in collaboration with Dr. Mohammed Kasem. Once a requirement is well formulated a design can ensue. As this system seems to offer a personalized service, it seems logical to restrict its use to registered users of the RADCON system.

2.7   *Component 9: Feasibility study forms and extension module*

As for the previous component, the requirement from this module is rather vague. The stakeholder analysis recommends that this system be implemented as an expert system, but the inputs and outputs of the system are not provided. So, as in the previous module, the exact requirements for this module need to be formulated in collaboration with Dr. Mohammed Kasem and once a requirement is well formulated the design for a system can be carried out.

2.8   *Summary of recommendation:*

1. Rename this module to "Jobs and Business Related Information" module
2. Group suggested components under two categories: Starting and managing a business (components: 1 through 4)
3. Financing a business: (components 5 through 10)
4. Merge components 5, 6, 7 and 10 into one component: "Information on Potential Financial Resources"
5. Move component 11 Teachers guide for illiteracy alleviation to the Training module describe in section 8.1 as for a user of the system to be developed, this component does not seem to fit logically under the original or the suggested new names.
6. Implement the components described in sections: 2.2, 2.3 and ,2.4 immediately

3   Women's corner module

The stake holder's analysis study has suggested the following components for this module:

1. Articles, success stories and extension modules on women rights, equity and other gender related issues.
2. Protective health modules on common diseases

3. Extension modules on nutrition and food processing.
4. Extension modules on home management
5. Extension modules on family education
6. Extension modules on women small projects (knitting, sewing, embroider… etc)
7. Extension modules on poultry, rabbits, ducks, goose, sheep and goats raising at home

By examining the different components, it is clear that they are all document based (except for success stories, which may be entered by users of the system themselves). So, it is suggested that instead of having 7 different components, this system be simply divided into two components. The first would be used to store and retrieve extension documents and articles, while the second would deal with success stories.

3.1   Component 1: Success Stories

Success Stories, is a place where users of the system can post their success stories or get inspired by those of other users of the system. As such, it's a medium of information exchange between users. The underlying assumption is that users will be able to post their success stories in order to share them with others. However, in order to eliminate the posting of irrelevant or hostile content, submissions have to be reviewed before being published. Each entered success story should be defined in terms of a title, a category and a subcategory similar to those defined in the next section. For each entered story, it should be know which user posted it (a registered user is less likely to post hostile content than an unregistered user) and who approved it from the pool of possible approvers. Instead of just having one block of text describe the success story, it can be divided into various sections that further structure the entered story such as success factors, help sources, etc. Each success story should be saved in the RADCON database, and an interface for end users to browse those (by category, or by title) as well for another for them to search (by textual content, or by entered category) should be developed.

Every time a new success story is added, it should be reported to the approver/editor by email. A web page should be provided to approvers for editing and publishing any entered success stories. Additional requirements identified by the stakeholder analysis study, include the following
   o   Add a guide on "how to write your story" to help unify the articles' formulation and the story integration. As mentioned before, to contribute more towards this, forms for various sections of the story should be provided. So this should

10

basically explain what is required in each of these sections.

- o Provide a disclaimer alerting users that the editor may make changes to their story to be valid for publishing after the author's final approval.
- o Provide the means foe obtaining feedback from RADCON users in the form of comments or questions. Readers' comments/questions can then appear in the story's page with the editor's or the writer's response.

Steps for designing this component, can be summarized as follows:

1. Design the Database
2. Design an interface for story entry
3. Design an interface for approving or editing an entered product
4. Design an interface for the editor or the author to respond to user entered comments or questions
5. Design an interface for users to enter comments or questions
6. Design an interface for browsing entered stories
7. Design an interface for searching for entered stories.

3.2 Components 2 to 7: Articles & Extension Modules

As mentioned before, this component will be used to store and retrieve extension documents and articles. The design for this system is thus a straight forward task The steps towards designing and implementing this system can be summarized as follows:

1. If the unified document repository described in section 8.2 is not to be used, then create a simple database for classifying different types of input documents and storing links to these Specifically, this database can be composed of four tables: <Doc_Category>, <Doc_Subcat>, <Doc_Types> and <Document_Details>. Table <Doc_Category> should have the following fields:

    a. Cat_id: a unique id for each category and a primary key
    b. Category_Name: The name of the category

    Table < Doc_Subcat > should have the following fields:

    a. sub_id: a unique id for each subcategory and a primary key
    b. cat_id: a foreign key mapping to the id of the category of which this is a subcategory.
    c. Sub_Category_Name: The name of the subcategory

    Table <Doc_Types> should have the following fields:

    a. Type: a unique number for each entered type and a primary key
    b. Type_Name: The name of the document type (example: Article, or Extension document|)

Table <Document_Details> should have the following fields:

    a. did: a unique id for entered documents and the primary key.

    b. Title: The title of the document

    c. Data_issued: the date on which this document was issued

    d. Publisher: the entity that issued this document

    e. Number: the document's number

    f. Location: location on server or a url

    g. Doc_subcat: the subcategory under which this document is classified

    h. Type: a number to indicate the type of document being entered (article, extension document, etc)

From the list given above, identified main categories include:

Women rights, Protective health (diseases can be subcategories), Nutrition, Food processing (various foods can be subcategories), Home Management, Family education, Small project , and Raising at home (rabbits, chicken, goats, and other similar animal can be subcategories).

2. Determine who will collect the data and whether or not there are documents that already address these issues.

3. Convert any existing documents to HTML and store their data in the database

4. Create an interface for uploading such documents and classifying them as well as another for deleting or updating an existing entry. This will be used by the entity in charge of maintaining this component.

5. Create an interface for browsing these documents. This interface will be used by RADCON end users. The interface should access the developed database to display the list of documents categorized by topic.

6. Create an interface for searching these documents by content, or by subject and other document related descriptors (such as date)

As a future enhancement to this component, another search facility can be introduced to perform targeted section search similar to that provided by the VERCON extension brochure search utility.

3.3 Summary of recommendations:

8. Divide this module into two components:

    a. Articles and Extension Modules

    b. Success Stories

9. For the articles and extension modules component, collect documents that fall

under the identified categories
10. Start the design and development phases of this module with its two components immediately

4 Towards a clean environment module

The stake holder's analysis study has suggested the following components for this module:

1. Laws and by-laws of legal use of agricultural land, irrigating clover after May 15… etc.
2. Articles to explain legislatives and the reasons behind its issuing
3. Extension modules on compost
4. Alternatives for using rice strew and the places to get bailing machines, molasses, ammonia injection…etc.
5. Extension modules on environment, wise use of agricultural land, chemicals, pesticides
6. Extension modules on healthy cattle folds
7. Extension modules on clean agriculture
8. Article on the healthy ways for dead animal disposal
9. Articles on self, home, village cleanliness and healthy behavior
10. Extension modules on healthy disposal of/recycling home liquid and sold wastes
11. Extension modules on healthy food and water

By looking at the different suggested components (items 1 through 10), it can be seen that like most components in the women's corner, these components too are document based. It is thus suggested that all these be merged under this section's one heading: Articles & Extension Modules.

4.1 Components 1 to 11: Articles & Extension Modules

The steps towards developing this system are almost identical to those of the women's corner "Articles & Extension Modules" component. As a result, a database similar to that suggested in section 3.2 may be used for this system. Alternatively, if a unified document repository is to be adopted, then the database suggested in section 8.2, should be used. Examples of categories for this module include: Laws and by-laws of legal use of agricultural land, Compost, Optimal use of agricultural land, Optimal use chemicals, Optimal use pesticides, clean agriculture, Dead animal disposal, Cleanliness. In all cases, the following steps (which are identical to steps 2 to 6 in section 3.2), should be carried

out:

1. Determine who will collect the data and whether or not there are documents that already address these issues.
2. Convert any existing documents to HTML and store their data in the database
3. Create an interface for uploading such documents and classifying them as well as another for deleting or updating an existing entry. This will be used by the entity in charge of maintaining this component.
4. Create an interface for browsing these documents. This interface will be used by RADCON end users. The interface should access the developed database to display the list of documents categorized by topic.
5. Create an interface for searching these documents by content, or by subject and other document related descriptors (such as date)

4.2   Summary of recommendation:

1. Merge all listed components for this module into one component: Articles and Extension Modules
2. Collect documents that fall under the identified categories
3. Start the development of this module immediately

5   Associations at the service of the community module

The stake holder's analysis study has suggested the following components for this module:

1. A directory of NGO associations available in the target areas, its objectives, activities and terms of dealing with it.
2. Success stories of self financing projects of the villages in collaboration with NGOs
3. Extension modules on how to form, register and manage a cooperative
4. Extension modules on participation and collaborative work in the village
5. Extension modules on the usage of rural communication media especially for marketing and group works
6. Online exhibition for village products
7. Training modules for NGO village specialists (the same as RADCON communication center officers)

Components 3 through 5 all deal with extension modules and articles and should thus be unified under that heading. Component 7, belongs more to the training module than it

does here.

5.1 Component 1: A directory of NGO associations

This component, has already been identified by the VERCON stakeholder analysis study under the broader title of "Agricultural services guide". The agricultural services guide was identified as a means for finding entities that offer specific services (such as NGOs). So rather than having this as an independent component, it should become part of this more general system. The design for this system was detailed in document "Design for new VERCON/RADCON Components: Part I", prepared by Dr. Samhaa El-Beltagy in October 2005. However, the presented design did not cater for activities and terms of dealing with various entities. The presented design thus needs to be extended to cover these requirements.

5.2 Component 2: Success stories of self financing projects of the villages in collaboration with NGOs

The requirements from this system are similar to those of the "Success stories" component of the "Women's corner" module. As such, the steps for developing this component are identical to those of "Women' corner". Please refer to section 3.1 for these. (System should be developed once, and re-used)

5.3 Component 3 to 5: Extension modules and articles

Except for the categories under which documents belonging to this module will fall, this component is identical to the components presented under the same name in the previous two sections. Please refer to subsections 3.2 and 4.1 for steps for developing this component.

5.4 Component 6: Online exhibition for village products

The name of this component describes its function quite clearly. The following preliminary requirements can be formulated for this module, but before developing this component, these requirements need to reviewed by Dr. Kassem to make sure that this is actually what is required.

1. Develop a mechanism where by villagers or other RADCON users can enter a photo and a description of their products. So each product should be defined in terms of the following:
   - Name: The name of the product being exhibited
   - Image: An image for the product

- Village: The name of the village in which this product is being produced
- Availability constraints: Any constraints that affect the availability of this product. For example, product may be only available during a specific month during the year.
- Validity Duration: the duration after which the exhibited item will no longer be valid. For database housecleaning a reasonable default should be specified. After the default or specified duration is encountered, the database entry for the exhibited product should be deleted.
- Contact Person or entity: this should include the name of the person or entity as well as their contact info (email, phone, fax, etc)

2. Provide an interface for making a product entry and for uploading a product photo.
3. Develop an approval for publishing mechanism Once an entry is made, it should be approved for publishing by a pre-appointed member of staff to whom an email should be immediately dispatched when such an addition takes place. Entry making should be restricted to registered users of the system.
4. Develop an interface for browsing entered products
5. Develop an interface for search for entered products

To summarize, the steps needed in order to deign this system are:
1. Verify requirements
2. Carry out the design of the following component:
   a. The Database
   b. An interface for product entry
   c. An interface for approving an entered product
   d. An interface for browsing exhibited products
   e. An interface for searching exhibited products

5.5   Summary of Recommendations

1. Make the component called "A directory of NGO associations available in the target areas, its objectives, activities and terms of dealing with it" part of the broader "Agricultural Services Guide" system.
2. Extend the design of the "Agricultural Services Guide" presented in the document titled "Design for new VERCON/RADCON Components" to cater for activities and terms of dealing with various entities.
3. Verify requirements of the "online exhibition for village products" component,

and proceed with its design.

4. Move the component called "Training modules for NGO village specialists" to the training module suggested in this document in section 8.1

6 Marketing information module

The stake holder's analysis study has suggested the following components for this module:

1. A component that is based on VERCON user requirements. This component would include the following sub-components:

    a. The daily vegetable and fruit wholesale prices. Marketing Information Project (MIP) used to have delegates in the five wholesale markets to get the daily prices in the morning or peak hour, fax it to the project HQ, which distribute it at the same day to media, concerned organizations in MALR including CAAES. CAAES used to fax these prices immediately to all Agricultural Directorates in the country, which distribute it to the district level to be available to farmers.

    b. Farm prices of field crops during marketing season.

    c. Market analysis articles by experts.

    d. Exportation opportunities.

    e. A directory for transportation companies, railway, airfare... etc, and prices.

    f. A mechanism for supply and demand presentation might be considered.

2. News about the common marketing systems (like poultry stock market).

3. Extension module on cooperative marketing

4. A directory for specialized cooperatives

5. Extension module on post harvest processes

6. Exportation terms, conditions… etc

7. Exporters directory

8. Exportation demands and terms for the next season

Regarding the first item in the first component (item a), as part of VERCON, a front end for a database containing this information, has already been developed. There is mention of alternate means for publishing this kind of information which is outside the scope of the information system.   As for item 1b, the economic sector of the Ministry of Agriculture and Land Reclamation has been indicated as its sole source in the study. So, this sector needs to be contacted to see how this information can be availed to RADCON users. Item 1c, can be grouped with components 3, 5, and 6 under the heading of:

Marketing related documents. Item 1d deserves its own component, item 1e, should be part of the Agricultural services guide mentioned in section 5.1 and so should components 4 and 7. As for item 1f, it is a bit vague. Component 8 seems very similar to component 1d and as such both should be in one system. News about common marketing systems, should be included as part of the news system i.e the news system should be extended to cover such news items.

6.1   Components 1c, 3, 5, and 6: Marketing related documents

This component is very similar to the "Extension modules and articles" described in the previous sections. Please refer to subsections 3.2 and 4.1 for steps for developing this component.

6.2   Components 1d and 8: Exportation opportunities

Even though, details have not been provided regarding this component, its name implies that what is required is the development of a system whereby RADCON users can be made aware of possible exportation opportunities and their terms and conditions.   The way to do this, is to enable certain entities from posting information about these opportunities. An opportunity needs to be defined in terms of target crop or product, exportation window, terms and conditions, and a contact person with whom interested parties can communicate in order to learn more. An export opportunity must have an expiration date, or a date after which it will no longer be valid. This too, must be entered by the "trusted" entity that posts this opportunity. To develop this system, the following steps need to be carried out:

1. Verify the above mentioned requirements from Dr. Kasem and obtain more information about who it is that will be able to post such announcements. Also address the issue, of how some entity that is not currently a stake holder may be able to post such an opportunity, i.e become a trusted "entity".
2. Design the database for this system
3. Design an interface for trusted entities to post opportunities
4. Design an interface for RADCON end users to browse opportunities. Viewing of opportunities should be restricted to RADCON registered users.
5. Design an interface for RADCON end users to search for opportunities. Searching for opportunities should be restricted to RADCON registered users.

6.3   Summary of Recommendations

1. Investigate the means by which to make information regarding farm prices of

18

field crops during marketing season kept by the economic sector of the Ministry of Agriculture and Land Reclamation, available to RADCON users (through the RADCON information system, and/or by other means)

2. Merge components 1c, 3, 5, and 6 into one component called "Marketing related documents".

3. Include components 1e, 4 and 7 as part of the "Agricultural services guide"

4. Clarify what is required by component 1f.

5. Merge components 1d and 8 into one module: "Exportation opportunities"

6. News about common marketing systems (component 2), should be included as part of the news system (NEMS).

7. Start on the design and development of the "marketing related documents" module

8. Verify the requirements of the "Exportation requirement" module, and start on its design.

7 "To the editor" module

The first suggestion regarding this module is to rename it to "Community" or some other name that reflects the contents of its subcomponents. This module has been stated as one that will work as gateway for communication between network users. The study has suggested the following components for this module

1. Contact us page
2. Successful Stories page
3. FAQ (Frequently Asked Questions)

7.1 Component 1: Contact us page

The requirements from this module can be found in the stake holders analysis study on page 73. These could be summarized in the following points:

• Enabling the site users from contacting the RADCON administrator as well as any of RADCON's stakeholders/partners

• Enable site users from posting a question, suggestion, or a complaint and have the appropriate partner respond to it

• Enable users from viewing previous questions to which answers were posted.

Steps needed to develop this component:

• Design a "Contact Information" page which is a page that would contain a list of all RADCON's stakeholders and partners , a link to their web pages wherever

possible, and contact emails and numbers. This page should also include the contact information of the RADCON site web administrator.

- Design a "Feedback page", which is a page that would enable users from providing their feedback in terms of suggestions, complaints or questions. A user using this page should be presented with a form, which should have a dropdown list of possible descriptions of his feedback (suggestion, complaint, question) and another dropdown multiple selection list of who he wants his feedback to be directed to (this can be any of RADCON's stakeholder or partners). Contact emails for each of RADCON's stakeholder or partners, should be stored in a database, and upon submission of any form of feedback, should be used to automatically formulate an email that includes the user's entry, that the system then dispatches immediately.

- Design a "post a response page" which RADCON stakeholders and partners can use to post a response to feedback directed to them. The way this should work, is by giving each stakeholder and partner a unique ID. When they log in using this ID, any feedback directed to them should be displayed to them as well as the means for publishing a response to that, or deleting it.

- Design a "View questions and responses" which is simply a page that would displayed any previously entered feedback along with the response to it and information about who made this response.

7.2   Component 2: Successful Stories page

The requirements from this system are similar to those of the "Success stories" component of the "Women's corner" module. As such, the steps for developing this component are identical to those of "Women' corner". Please refer to section 3.1 for these.

7.3   Component 3: FAQ (Frequently Asked Questions)

A FAQ will initially be empty, but as question start to raised, the most common of these will be collected along with their answers and placed in a page denoting this component.

7.4   Summary of Recommendations

Start on the development of components of this module immediately.

8   New suggested components

8.1   *Training module*

A number of training components have already been suggested as part of other module. However, from a system's point of view, they did not seem logically placed under the headings of modules where they were suggested. It is thus better if a whole module be dedicated to these components as not only will it serve to alleviate the problem just mentioned, but it will also give them a more prominent place on the system map, and will allow for the easy incorporation of new training documents or systems. The suggested subcomponents of this module are as follows:

- Training Documents
- Training Systems

Most of the training components mentioned in this document seem to fall under the umbrella of training documents. However, it is anticipated that in the future there may be a need for training systems.

Developing the "Training Document" component is similar to the development of other document based modules referenced throughout this document. Please refer to subsections 3.2 and 4.1 for exact steps for developing this component.

8.2   *A Unified Document Repository*

A unified document repository for the RADCON system can be a database that can store information related to extension documents or articles. Throughout the RADCON information system module, these types of documents are frequently utilized so instead of building a separate database for each module, one can be built for all. This suggested component is a backend component that will not reflect in the functionality being offered to users.

The repository's database can be composed of 5 tables : <Modules>, <Categories>, <Doc_Categories>, <Doc_Types> and <Document_Details> described as follows:

- Table <modules> will be used to store various module names and their identifiers. This is so as to enable various documents from being specified as belonging to particular modules. This table should have the following fields:
    a. mod_id: a unique id for each module and a primary key
    b. Module_Name: The name of the module (Job Opportunity, Women's corner, etc)
- Table < Categories > will be used to store various possible document

classifications/categories and their sub classifications/sub categories. This is a more flexible alternative to describing documents in term of just a category and a subcategory as it allows descriptors to be of varying depth. The table should have the following fields:

    a. Did: A unique id for the category/subcategory that also serves as a primary key.

    b. Module_ID: A foreign key mapping to the ID of the module under which this descriptor falls. Specifically, this key should map to field mod_id in table <Modules> .

    c. Parent_Did: In case this category is a child of another category/subcategory entered in this table, then this field will be used to point to it's parent's id, otherwise, it should be left empty indicating that it is a root descriptor.

    d. Level: This is a number that indicates that depth of this category after some given sub category. A root category will be assigned a level of 1, its subcategory, a level of 2, its sub-sub category a level of 3 and so on.

    e. Cat_Description: Text representing this category

- Table < Doc_Categories > will be used to store the final selected category for some given document. The table should have the following fields:

    a. Doc_ID: The ID of the document being described. This is a foreign key mapping to field did in table < Document_Details>

    b. Cat_ID: The ID of the very specific category, used to describe the document whose id is specified in field Doc_ID. This is a foreign key mapping to field Did in table < Categories >

- Table <Doc_Types> will be used to store various possible document types. For example, an article is a type, and an extension document is another type. The table should have the following fields:

    a. Type: a unique number for each entered type and a primary key

    b. Type_Name: The name of the document type (example: Article, or Extension document|)

- Table <Document_Details> should have the following fields:

    a. did: a unique id for entered documents and the primary key.

    b. Title: The title of the document

    c. Data_issued: the date on which this document was issued

    d. Publisher: the entity that issued this document

    e. Number: the document's number

f. Location: location on server or a url

g. Mod_id: the id of the module to which this document belongs

h. Type: a number to indicate the type of document being entered (article, extension document, etc)

9 Conclusions

The conclusions section is divided into two subsections. The first outlines the overall components of RADCON and the second presents the final recommendations of this report.

9.1 RADCON's Components and Overall Structure

Jobs and Business Related Information

- Starting and managing a business
  - o Project Ideas Finder
  - o How to…
  - o Administrative and Legal Info.
  - o Marketing mix for the project products
- Financing a business
  - o Information on Potential Financial Resources
  - o Manage my loan
  - o Feasibility study forms and extension module

Women's corner

- Articles and Extension Modules
- Success Stories

Towards a clean environment

- Articles and Extension Modules

Community Services

- Articles and Extension Modules
- Success Stories
- Online exhibition for village products
- Agricultural services guide

Marketing information

- Related Documents
- Exportation opportunities

Training

Community Links

- Contact Us
  - Contact information
  - Post Feedback
  - View previous questions and responses
- Success Stories
- FAQ

NEMS
FORUM
Useful links

9.2   Final Recommendations

1. Ask Dr. Mohammed Kasem to review this document so as to clarify any misunderstandings and obtain further feedback early on.
2. For each   listed sub-component, determine who (in terms of organizational entities) will be in charge of content maintenance.
3. Appoint one person from the development team to each of the suggested sub-components. It will be his/her duty to carry out the requirements and follow the system through to its   implementation. This person should read the recommendations that are found at the end of the module of which he/she is responsible and carry them out, or modify them explicitly stating why such a modification was needed.
4. Collect any missing requirements as specified by this document.
5. Develop a content maintenance plan basically addressing the issue of how to enable entities assigned the task of content maintenance, from accessing and modifying content. This should involve the investigation of the development of a content management system for the whole site.
6. Carry out recommendation specified at the end of sections 2 to 7