
Software Requirements Specification

For Electoral Reform Tracker

Version 1.2

Prepared by



TekGeeks (Pvt) Ltd

No. 02, De Mel Watta Road, Koswatta,

Nawala, Sri Lanka.

Tel: +94-11-7213133 +94-77-7383099

Email: info@tekgeeks.net

15.09.2022

Revision History

Name	Date	Reason For Changes	Version	Comments	Status
SRS	25/08/2022	Initial version of SRS document	1.0		
Updated SRS	6/09/2022	Updated SRS with the feedbacks received	1.1		
Finalized SRS	15/09/2022	Updated SRS 1.1 with the feedbacks received	1.2		

TekGeeks Approval

Version	Prepared By	Reviewed By	Approved By
1.0	Rajitha & Lathushanan	Ayodhya & Karshan	Maheen
1.1	Rajitha & Lathushanan	Ayodhya & Karshan	Maheen
1.2	Rajitha & Lathushanan	Ayodhya & Karshan	Maheen

PAFFREL Approval

Version	Reviewed By	Approved By	Remarks
1.0			
1.1			
1.2			

Table of Contents

TekGeeks Approval	2
PAFFREL Approval.....	2
1. Introduction	9
1.1 Purpose.....	9
1.2 Document Conventions	9
1.3 Intended Audience and Reading Suggestions.....	10
1.4 Product Scope	10
2. Overall Description.....	11
2.1 Product Perspective.....	11
2.2 Stakeholders.....	12
2.3 User Categories, Characteristics and Levels	15
2.4 Operating Environment.....	19
2.5 Design and Implementation Constraints	19
2.6 Assumptions and Dependencies	19
2.7 Risks and Mitigation	20
3. Electoral Reform Tracker	22
4. System features of PAFFREL users.....	24
4.1 Super admin user level.....	26
4.1.1 Login	26
4.1.2 Dashboard.....	26
4.1.3 View existing recommendations/ proposals	27
4.1.4 Election monitoring organizations (EMO) management.....	27
4.1.5 Related Entities management	27
4.1.6 Parliament member management.....	28
4.1.7 Public user management	28

4.1.8 PAFFREL user management	29
4.1.9 Master data management	29
4.1.9 Report module.....	32
4.1.10 Update social media links.....	32
4.1.11 Unrelated Proposal Management.....	32
4.1.12 Configure pending time periods of recommendation or proposals till approval/ updates (traffic light system).....	32
4.1.13 Frontend website content management	33
4.1.14 Enable / disable comment facility.....	33
4.1.15 Enable / disable like & dislike facility.....	33
4.1.16 Enable / disable general poll facility	33
4.2 Approval user level.....	34
4.2.1 Login	34
4.2.2 Dashboard	34
4.2.3 View and update existing recommendations/ proposals	35
4.2.4 Submit new recommendations/proposals	35
4.2.5 Approve recommendations/proposals status update.....	35
4.2.6 Approve comments	36
4.2.7 Poll/ Rating Management	36
4.2.8 Filter and Search	36
4.2.9 Election monitoring organizations (EMO) management.....	37
4.2.10 Related Entities management	37
4.2.11 Parliament member management.....	38
4.2.12 Public user management	38
4.2.13 Report module.....	38
4.2.14 Unrelated Proposal List	38
4.2.15 Internal Communication Request.....	39

4.2.16 Approval Process Explanation	39
4.3 Data entry user level	40
4.3.1 Login	40
4.3.2 Dashboard	40
4.3.3 View and update existing recommendations/ proposals	40
4.3.4 Submit new recommendations/proposals	41
4.3.5 Unrelated Proposal List	41
4.3.6 Internal Communication Request	41
4.4 Management user level	42
4.3.1 Login	42
4.4.2 Dashboard	42
4.4.3 View existing recommendations/ proposals	43
4.4.4 Submit new recommendations/proposals	43
4.4.5 Approve recommendations/proposals status update.....	43
4.4.6 Approve comments	44
4.4.7 Report module.....	44
4.4.8 Unrelated Proposal List	45
4.4.9 Internal Communication Request	45
5. System features of election monitoring organization (EMO) user category	46
5.1 EMO approval user level.....	47
5.1.1 Login	47
5.1.2 Dashboard	47
5.1.3 View and update existing recommendations/ proposals	47
5.1.4 Submit new recommendations/proposals	48
5.1.5 Approve recommendations/proposals	48
5.1.6 EMO comments management	48
5.1.7 Report module.....	49

5.2 EMO Data entry user level	49
5.2.1 Login	49
5.2.2 Dashboard	49
5.2.3 View and update existing recommendations/ proposals	49
5.2.4 Submit new recommendations/proposals	50
6 System features of related organization user category	51
6.1 Related entity approval user level	52
6.1.1 Login	52
6.1.2 Dashboard	52
6.1.3 View and update existing recommendations/ proposals	52
6.1.4 Submit new recommendations/proposals	53
6.1.5 Approve recommendations/proposals	53
6.1.6 Related Entities comments management	53
6.1.7 Report module	54
6.2 Related Entities Data entry user level	54
6.2.1 Login	54
6.2.2 Dashboard	54
6.2.3 View and update existing recommendations/ proposals	54
6.2.4 Submit new recommendations/proposals	55
7. System features of parliament member user category	56
7.1 Login	57
7.2 Dashboard	57
7.3 Recommendations/Proposal Tracking	57
8. System features of general public user category	58
8.1 User Registration	59
8.2 Login	59
8.3 Dashboard	59

8.4 Recommendations/Proposal Tracking	59
8.5 Unrelated Proposal List	60
8.6 General Poll	60
9. Non Functional Requirements	61
9.1 User Management, Roles and Permissions	61
9.2 Accessibility.....	61
9.2.1 Info and Relationships	61
9.2.2 Meaningful Sequence.....	62
9.2.3 Sensory Characteristics	62
9.2.4 Use of Color	62
9.2.5 Audio Control.....	62
9.2.6 Keyboard	62
9.2.7 No Keyboard Trap.....	63
9.2.8 Pause, Stop, Hide.....	63
9.2.9 Three Flashes or Below Threshold.....	63
9.2.10 Page Titled	63
9.2.11 Focus Order	63
9.2.12 Link Purpose (In Context)	63
9.2.13 Focus Visible.....	64
9.2.14 Page Break Navigation	64
9.2.15 Pointer Gestures.....	64
9.2.16 Pointer Cancellation	64
9.2.17 Label in Name	65
9.2.18 Motion Actuation	65
9.2.19 Language of Page	65
9.2.20 On Focus	65
9.2.21 On Input.....	65

9.2.22	Error Identification	66
9.2.23	Labels or Instructions.....	66
9.2.24	Name, Role, Value.....	66
9.2.25	Identify Input Purpose	66
9.2.26	Contrast (Minimum).....	67
9.2.27	Images of Text	67
9.2.28	Non-Text Contrast	67
9.2.29	Text Spacing	67
9.2.30	Content on Hover or Focus	68
9.2.31	Multiple Ways	68
9.2.32	Headings and Labels.....	68
9.2.33	Target Size (Minimum)	68
9.2.34	Consistent Identification	68
9.2.35	Visible Controls.....	69
9.2.36	Error Suggestion	69
9.2.37	No Timing	69
9.2.38	Re-authenticating.....	69
9.2.39	Location	70
9.2.40	Section Headings	70
9.2.41	Target Size	70
9.2.42	Concurrent Input Mechanisms.....	70
9.3	User Manual.....	70

1. Introduction

1.1 Purpose

The purpose of this document is to highlight the project's business process and technical features. The SRS prepared here is based on the brainstorming sessions the vendor (TekGeeks) had with PAFFREL, NDI and other stakeholders.

The established SRS includes a description of each functional requirement along with non-functional requirements which is explained in a detailed manner of the business process to assist the relevant stakeholders in determining whether their requirements have been captured, whether the TekGeeks team understands their intended state, and gauging the solution accorded. If the SRS document is regarded by the stakeholders in PAFFREL, they can sign off on this documentation to move swiftly with the next deliverables.

The SRS document that has been written based on the brainstorming sessions and we will accommodate any changes from the PAFFREL team following the SRS sign off and the contents in the SRS will be amended with the other deliverables at the different stages of this project whenever necessary. All amendments should be according to the RFP.

Furthermore, once SRS officially sanctioned the final product, the TekGeeks team will proceed with next deliverables and deliver it. The delivered document, on the other contrary, provides vital information to all parties, including design, development and quality assurance (QA), ensuring that the teams closely follow the information in the SRS document as the project advances.

1.2 Document Conventions

This Document was created based on the IEEE template for System Requirement Specification Documents.

1.3 Intended Audience and Reading Suggestions

- Typical Users, PAFFREL staff and those who need to use the Electoral Reform Tracker to track the recommendations.
- Programmers who are interested in working on the project by further developing it or fix existing bugs.

1.4 Product Scope

There are recommendations that are received by various organizations along with proposals for the elections reforms. PAFFREL is a pioneer who collect the relevant recommendation that are received and check if the recommendation is valid or prepare proposals or pass the recommendations to the relevant entities (Elections Commissions and etc..) that are predefined.

There was only an existence of a manual tracker at PAFFREL, but the solution that is proposed in this SRS documentation is about an online electoral reform tracker which actually becomes an advantage to manage all recommendations at one place in a more user friendly manner. This solution can be accessed by various users from or outside PAFFREL including the general public.

Through this tracker the public can witness the recommendations received and what is the end result to those received recommendations. The proposed solution works as an advocacy tool to facilitate interaction between general public and election related organizations including PAFFREL about the election reforms.

2. Overall Description

2.1 Product Perspective

Objective of this assignment is to strengthen the tracking process of the recommendations or proposal received regarding the election in Sri Lanka by PAFFREL and any other organizations that are affiliated with them.

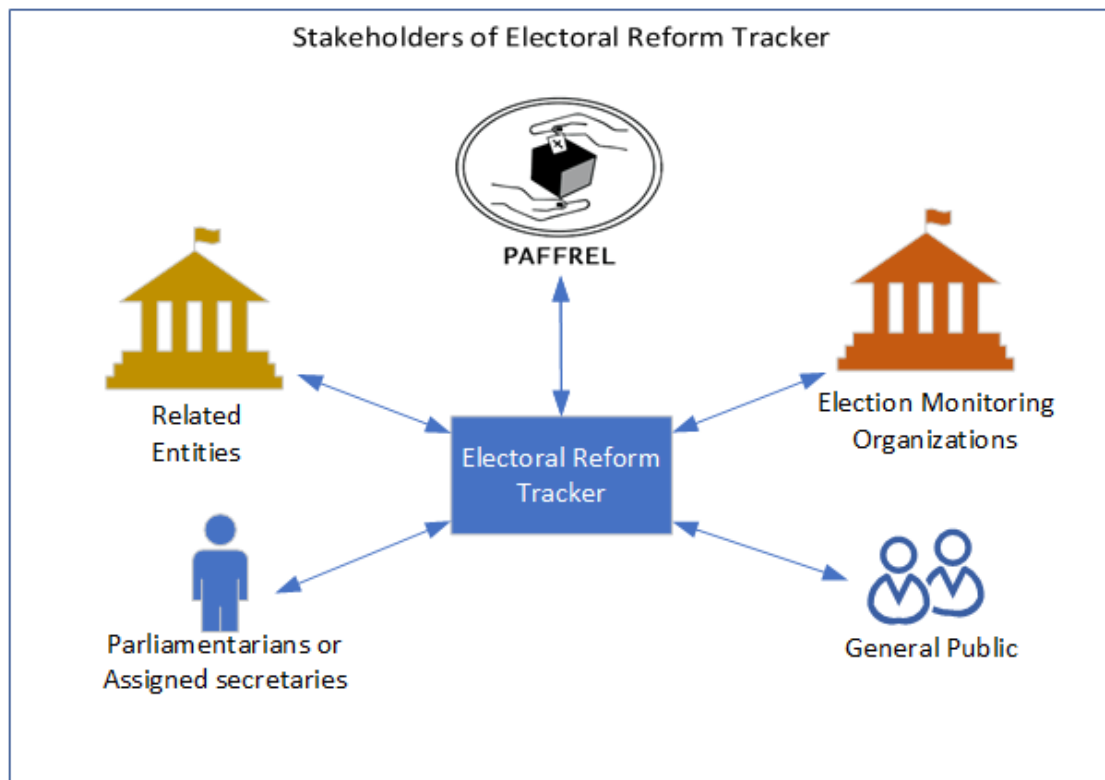


Figure 1 Stakeholders of Electoral Reform Tracker

2.2 Stakeholders

1. PAFFREL
2. Election Monitoring Organization
3. Related Entities
4. Parliamentarians
5. General Public

1. PAFFREL Functionalities

- Login
- View dashboard (management dashboard / information dashboard)
- Recommendation/ proposal tracking module
 - Add new record
 - Search, filter, view and update existing recommendations / proposals
 - Approve recommendation / proposal / Comments
 - Update status
 - Add new steps to a record
 - Participating in polls & ratings
 - Upload related documents / research reports
- Election monitoring organizations (EMO) management
- Related entities management
- General public user management
- Master data management
- Comments management (view & approve)
- Polls and rating management
- User management (CMS users)
- Unrelated proposal management
- Update social media links
- Internal communication module
- Report module

- Configure pending time periods of recommendation / proposals till approval/ updates
- Frontend website content management
- Enable / disabled comment facility
- Enable / disabled like & dislike facility
- Enable / disabled general poll facility

2. Election Monitoring Organizations Functionalities

- Login
- View dashboard
- Recommendation/ proposal tracking module
 - Submit a new record
 - Search, filter and view existing recommendations / proposals
 - Approve recommendation / proposals
 - Update Status
 - Participating in polls & ratings
 - Upload related documents / research reports
- Comments management
 - Submit organization comments
 - Approve organization comments
- Report module

3. Related Entities Functionalities

- Login
- View dashboard
- Recommendation/ proposal tracking module
 - Submit a new record
 - Search, filter and view existing recommendations / proposals
 - Approve recommendation / proposals
 - Update status
 - Participating in polls & ratings

- Upload related documents / research reports
- Comments management
 - Submit organization comments
 - Approve organizations comments
- Report module

4. Parliament Member Functionalities

- Login
- View dashboard
- Recommendation/ proposal tracking module
 - Submit a new record
 - Search, filter and view existing recommendations / proposals
 - Update status
 - Participating in polls & ratings
 - Upload related documents

5. General Public Functionalities

- User registration
- Login
- View dashboard
- Recommendation/ proposal tracking module
 - Submit a new record
 - Search, filter and view existing recommendations / proposals
 - Participating in polls & ratings
 - Upload related documents
 - Add comments for recommendations, proposals and general comments
- View unrelated recommendations / proposals list (only when CMS user enables the page)
- Participating in general poll

2.3 User Categories, Characteristics and Levels

PAFFREL

- PAFFREL users are the main managerial users, who has access to each and every functionalities and capabilities of this proposed electoral reform tracker. Under the PAFFREL user category there are different levels of users for different internal tasks and ease of use of the solution.
- PAFFREL user category has four user levels.
 - Super administrator
 - Management user
 - Approval user
 - Data entry (view & update) user
- Super administrator user level – The user level which has the ultimate power and access to all content types, along with the access to define or change the master data (ex. Add new category for recommendation), management of other user categories and their privileges, polls and rating management, reporting module access and the user can update social media links throughout the site and other tasks defined to the super admin user level.
- Management user level (Approval user level 2)– The management user can manage various levels of tasks and the privileges. Their primary responsibility is to approve the contents that is awaiting publication to the live site including new recommendation or proposal already approved by the approval user 1. Level 2 approval users are the highest level of the PAFFREL approval users and they can input comments about recommendations / proposals, send internal communication requests to other users and other defined tasks.
- Approval user level (Approval user level 1) - The approval user has authority to approve any contents that has to be published to the live site. When approval level 1 user approves a new recommendation or proposal that can be included to the tracker system, it then will be forwarded to the approval user 2 for final approval. Further there will be two levels of approval users, the contents approved by the approval user level 1 user will be sent to the user level 2 approval and with whose two approval the content will be made visible in the live site. The approval request will be received and viewed simultaneously by both level of approval users where, if level 2 user approves the

approval request before the level 1 user, then the content will be published to the live site. The comments given by public will be published in live site with the level one approval user's approval. They can perform various tasks defined for their user level including send internal communication requests to other users and reply to incoming requests.

- Data entry user level – The data entry user has the access to input data to the system. The data can be that are any recommendations received in a physical manner to the PAFFREL users or and updates to the existing records can be modified by this user.

Election monitoring organization (EMO)

- EMO user category is for different authorized organizations who has access to monitor, add and update recommendations and add status of the recommendation that was submitted.
- EMO user category has two user levels
 - Approval user
 - Data entry user
- EMO approval user level - The EMO approval user has authority to approve any contents uploaded by the EMO data entry users. When EMO data entry user initiate an approval request, it will forward to a EMO approval user. With the approval of the EMO approval user, the request will then be forwarded to the PAFFREL's approval before publish to the website. All the contents and requests forwarded by the EMO will have to go through the PAFFREL's approval before publishing to the website.
- EMO data entry user level – The data entry user has the access to input data to the system. The data can be that are any recommendations received in a physical manner to the PAFFREL users or and updates to the existing records can be modified by this user. Further comments can be submitted, can participate in polls and rating and can upload relevant documents to the recommendations.

Related Entities

- Related Entities user category is for any organizations
- Related Entities user category has two user levels
 - Approval user
 - Data entry user
- Related entity approval user level - The related entity approval user has authority to approve any contents uploaded by the related entity data entry users. When Related Entities' data entry user initiate an approval request, it will forward to a Related Entities' approval user. With the approval of the Related Entities' approval user, the request will then be forwarded to the PAFFREL's approval before publish to the website. All the contents and requests forwarded by the Related Entities' will have to go through the PAFFREL's approval before publishing to the website.

- Related entity data entry user level – The data entry user has the access to input data to the system. The data can be that are any recommendations received in a physical manner to the PAFFREL users or and updates to the existing records can be modified by this user. Further comments can be submitted, can participate in polls and rating and can upload relevant documents to the recommendations.

Parliament member

- Parliament member user category is for the members of Parliament. They will have access to this electoral reform tracker and they will have certain access to perform certain tasks here.
- Parliament member user category has only one user level and they will be able to only submit new recommendations / proposals, view recommendation records, view submitted proposals, update status, submit their comments, participate in polls & ratings, filter and search to view the existing recommendations or proposal, MPs can approve any recommendations or proposal and they can upload any related documentations for the any recommendations.

General public

- General public user category is for any individual from different countries can access the electoral reform's frontend (website). The particular user has to register to further interact with the system and other parties.
- General public user category has only one user level and they will be able to only submit new recommendations / proposals, view recommendation records, view received proposals, they can submit their comments (recommendation / general) and participate in polls & ratings.
- The general public can get registered from the frontend of the site where the user can enter the necessary fields along with a valid email address which will be verified through an email verification.

2.4 Operating Environment

- Windows
- mac OS
- iOS / iPadOS
- Linux
- Android

2.5 Design and Implementation Constraints

- User should be able to access the system over the internet.
- Participants (User) should be the employee of PAFFREL and any relevant organizations.
- Participants (User) must have the email for the authentication purpose.

2.6 Assumptions and Dependencies

- This system supposed to be a web-based application which can be accessed 24/7.
- Internet connection should be available to use the application.
- System assumes the users are familiar with basic computer and mobile literacy and web browser operations.
- Every users web browser should not be older than one year from the launching date of the product. Older web browser will not restrict user from accessing the website but it may limit the way how certain contents and designs are displayed.
- Older versions of operating systems will not restrict user from accessing the website but it may limit the way how certain contents and designs are displayed.
- The Approval user should be responsible on what and what not to be approved.
- When a user logs in, their IP address, device type, browser type and account details will be saved in the system log.
- The developed website will support English, Sinhala and Tamil languages. The content of the website will be available in the above three languages (if provided).
- The backend users will have the ability to add content on all three languages for a single content.
- The maximum file upload size will be 100 MB.
- Google reCaptcha will be provided to control spam users.

- All user activities performed within the system will be recorded as a user logs for future references.
- All the contents and recommendation requests forward by any user categories will have to go through the PAFFREL approval (level 1 & level 2 user approval or only the level 2 user approval) before publishing to the website. Without the approval of the PAFFREL level 2 user, content will not be published to the website.
- The approval of comments requires the level one user's approval (data entry user).
- Every recommendation, proposals and comment will have a like & dislike option where any user will be able to show their preference. Like and dislike facility of a specific recommendation or a specific proposal can be enabled or disabled using CMS. The like & dislike facility of the comments cannot be enabled or disabled.
- Any frontend users of the propose website can subscribe to the interest areas of the website where they will receive notifications as an email when an update is made. For example, if a general public or a MP subscribe to a specific recommendation / proposal record, any update makes to that particular recommendation / proposal record will be notified to the subscriber via email.

2.7 Risks and Mitigation

Risk	Probability	Impact	Action to Mitigate the risk / comments	Responsibility	Status
Legal Risk	Medium	Legal issues to PAFFREL	Use of appropriate disclaimer and terms & conditions in the website. The approval level user should be aware of all contents before approving	PAFFREL	
Cyber Attack	Medium	Affecting Website and Web Server	The TekGeeks will ensure the security through application, the PAFFREL or the hosting party should look into the server related security measures.	PAFFREL / TekGeeks	

Spamming of Comments	Medium	Website comments being spammed	The google reCaptcha will be use in the website to identify and block spam and abuse users.	TekGeeks	
Non participation of other users groups (AD, EC etc.) to the tracker process	High	Record status are not updating, so general public loss its interest on the website.	User training will be provided to the relevant users on how to use the functionalities of the tracker system. Additionally, relevant users will have a dashboard option to show the unfinished / pending jobs.	PAFFREL & other relevant user groups	
Unavailability and failure of sever infrastructure	Medium	Website goes offline.	PAFFREL should have a knowledgeable person to bear the responsibility of server infrastructure related tasks. Suitable backup mechanism should be incorporated.	PAFFREL	

3. Electoral Reform Tracker

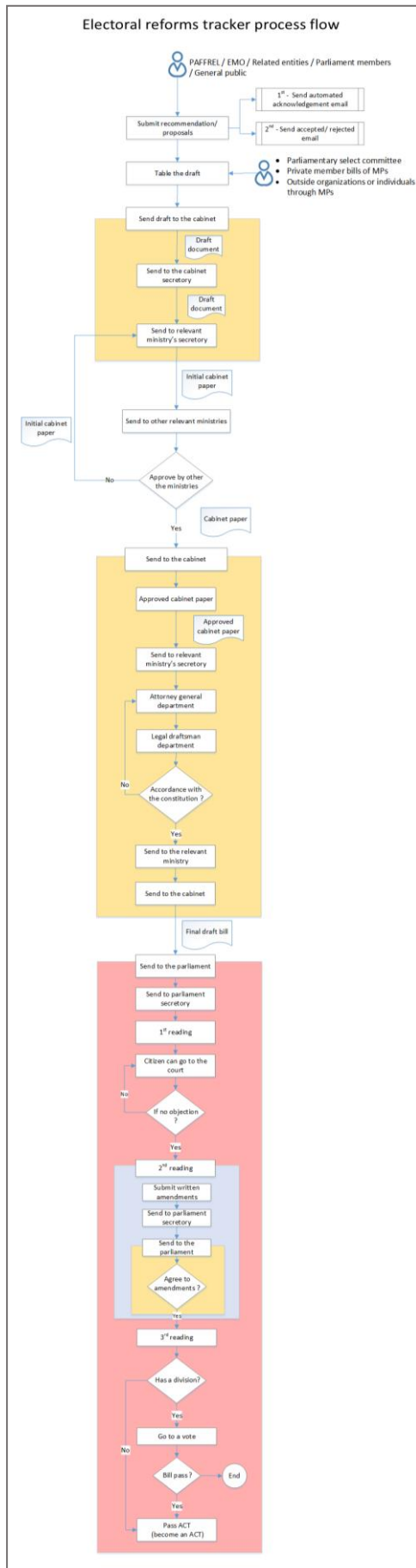


Figure 2 Electoral recommendation tracker process flow

The above diagram represents the electoral recommendation tracker process flow. Here the flow is common for PAFFREL users, EMO, related entities, Parliament Members and general public.

The above users can submit a recommendation or a proposal to the system. Once user submits a recommendation or proposal an automated acknowledgement email will be sent and then once the approval users review the submitted request then only the submission approved or rejected email will be sent by the CMS user. The submission will be tabled as a draft, which can be accessed by parliamentary select committee, private member bills of MPs and outside organizations or individuals through MPs. The tabled draft can later be sent to the cabinet as a document, from there the cabinet sends the draft to cabinet secretary and from there to the relevant ministry's secretary. From there the draft will be passed as initial cabinet paper to the relevant ministries to get the approval from the other ministries. If it is approved by other ministries, then the cabinet paper will be sent to the cabinet. If it is not approved the initial cabinet paper will be sent back to the relevant ministries secretary.

The cabinet paper which was received by the cabinet with the approval of the other ministries will later approved as a cabinet paper and the approved cabinet paper will be sent to relevant ministry's secretary. From there it will then be passed to the attorney general's department and from there to legal draftsman department. There if the received cabinet paper is in accordance with the constitution then the cabinet paper will be sent to the relevant ministry and from there to the cabinet. If it is not in accordance with the constitution, then the paper will be sent back to the attorney general department.

The cabinet which is received to the cabinet by confirming that it is there according to the constitution then the cabinet paper will be converted as the final draft bill. The final draft bill will be sent to the parliament to the parliament secretary. There the 1st reading will be carried out and then citizen can go to the court. If there is no objection in the draft bill then the proceeding will be commenced for 2nd reading but, if there is an objection then the draft bill will be reverted back to the citizen. When the 2nd reading commences there, the written amendments will be submitted and sent to the parliament secretary and from there to the parliament and if the parliament agreed to the amendments then the draft bill will be sent to the 3rd reading. If the draft bill has a division then a vote will be taken and if the bill is passed it will then become as an ACT, but if the bill is not passed the process will end there. If the bill did not have a division then it will straightaway become as an ACT.

4. System features of PAFFREL users

PAFFREL users are the main managerial users, who has access to each and every functionalities and capabilities of this proposed electoral reform tracker. Under the PAFFREL user category there are different levels of users for different internal benefits and ease of use of the products.

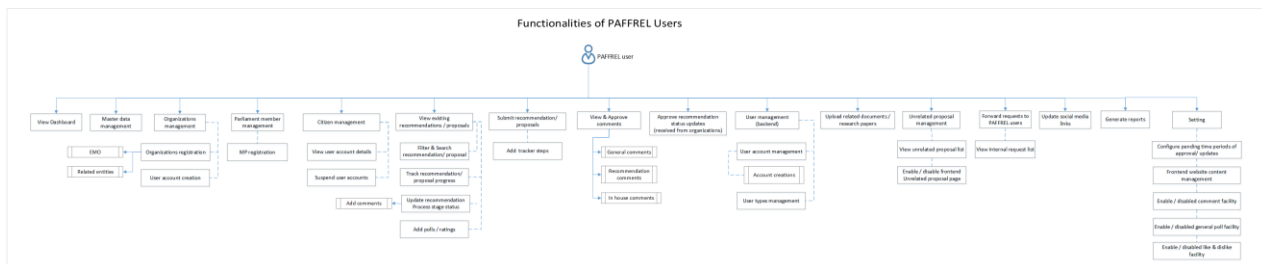


Figure 3 Functionalities of PAFFREL Users

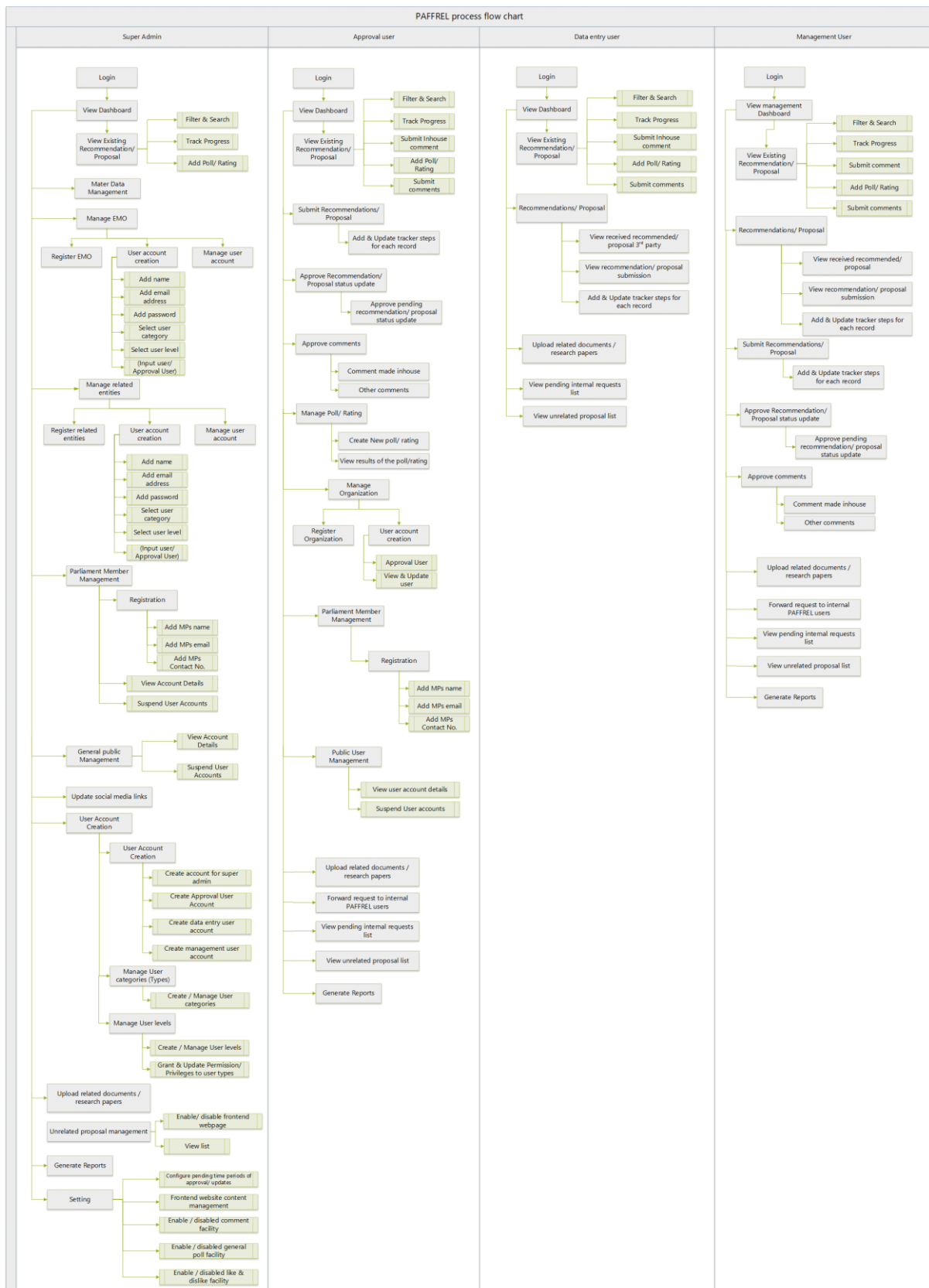


Figure 4 PAFFREL Process Flow Chart

4.1 Super admin user level

The user level which has the ultimate power and access to all content types, along with the access to define or change the master data (ex. Add new category for recommendation), management of other user categories and their privileges, polls and rating management, reporting module access and the user can update social media links throughout the site. In detail explanation about the capabilities of this user level and the features that are available are mentioned here.

4.1.1 Login

The super admin user will be able to login to the system by entering their username and the password. The login page will have a ‘forgot password’ facility to reset their password if a user forgets their password.

4.1.2 Dashboard

Once the super admin user logs in to the system, the user will be initially redirected to a dashboard containing various indicators and analytical information. These dashboard contents will be depicted in user friendly manner using graphs and charts. The display contents will be finalized in the design stage form the inputs of the client.

The CMS dashboard will contain the numbers of representations which will show the number of recommendations or proposal received, the number of unopened recommendations or proposal, the addressed number of recommendations or proposal, the number of approved content, the number of non-approved contents to the users.

The dashboard will include a categorization of new recommendation or proposal records according to their pending days till the final approval and updates. For example, when a recommendation or proposal received the unopened record can have a green color indicating that it's a new one and if it remains unopen after seven days then it will turn red indicating it's unattended for seven days and after fourteen days it turns to an another color. These pending time periods (7 days, 14 days, 1month etc.) can be configured by the super admin using facility in CMS.

4.1.3 View existing recommendations/ proposals

The super admin user will be able to search and filter existing records using various criteria and view result records list and individual record details. The search and filtering criteria will include date range, category, sub category, priority level, steps, responsible Organizations / stakeholders, level of importance and other relevant criteria which identified by the client or the developer.

In an individual record, the user will be able to view all the necessary details of the recommendation / proposal and track their current status. Also they will be able to participate in polls & ratings of a recommendation / proposal records. The recommendations and comments can be downloaded by any backend user as a .CSV file.

4.1.4 Election monitoring organizations (EMO) management

The super administrator will be able to add a new EMO to the system. Also they will be able to view the list of existing EMOs, view & edit an individual EMO details, enable or disable an EMO or delete an existing EMO from the system.

Under each EMO, super admin user will be able to create new user account for that particular EMO. They will be able to search and filter registered EMO users and view & edit an individual EMO user details. Also they will be able to enable or disable a EMO user account or delete a EMO user account from the system. A EMO user category has two user levels, approval user and data entry user. So when creating a new user account for an EMO, super admin should select the appropriate user level for that new user.

When creating a new EMO user account, super admin should select tracker step or steps which will associate with that particular EMO user. By selecting the step or step, that particular user will be able to update the assigned tracker step status.

4.1.5 Related Entities management

The super administrator will be able to add a new Related Entities to the system. Also they will be able to view the list of existing Related Entities, view & edit an individual Related Entities details, enable or disable a Related Entities or delete an existing Related Entities from the system. The designated Related Entities will be election commission, attorney general department, parliament secretary and cabinet office.

Under each Related Entities, super admin user will be able to create new user account for that particular Related Entities. They will be able to search and filter registered Related Entities users and view & edit an individual Related Entities user details. Also they will be able to enable or disable a Related Entities user account or delete a Related Entities user account from the system. A Related Entities user category has two user levels, approval user and data entry user. So when creating a new user account for a Related Entities, super admin should select the appropriate user level for that new user.

When creating a new Related Entities user account, super admin should select tracker step or steps which will associate with that particular Related Entities user. By selecting the step or step, that particular user will be able to update the assigned tracker step status.

4.1.6 Parliament member management

The super administrator will be able to add a new parliament member to the system using parliament member registration process. The super admin will create a user account behalf of each parliament member and email the user name and the temporary password to the parliament member or their nominee. Then parliament member or their nominee can log onto the system and reset their password and start their interaction with the system.

The super admin will be able to view the list of registered parliament members, view and edit individual parliament member account details, enable or disable a parliament member account or delete an existing parliament member account from the system.

When creating a new parliament member user account, super admin should select tracker step or steps which will associate with that particular parliament member user account.

4.1.7 Public user management

The super administrator will be able to view the list of the public users who are registered with the system. They will be able to search and filter registered public users and view & edit an individual public user details. Also they will be able to enable or disable a public user account or suspend a public user account from the system.

4.1.8 PAFFREL user management

The PAFFREL users will categorize in to four user levels; super admin, approval user, data entry user and management level user. Each user level can user one or more users. The super administrator will be able to add a new PAFFREL user in to the system by creating a user account. When creating a new PAFFREL user account, super admin should select a PAFFREL user level and should select tracker step or steps which will associate with that particular PAFFREL user. By selecting the step or step, that particular user will be able to update the assigned tracker step status.

The super administrator will be able to view the list of the PAFFREL users who are registered with the system. They will be able to search and filter registered PAFFREL users and view & edit an individual PAFFREL user details. Also they will be able to enable or disable a PAFFREL user account or delete a PAFFREL user account from the system.

4.1.9 Master data management

4.1.9.1 User category (user type)

The super administrator will be able to add a new user category to the system. Also they will be able to view the list of existing user categories, view & edit an individual user category details, enable or disable a user category or delete an existing user category from the system.

The designated user category of the system will be

- PAFFREL user category
- Election monitoring organization user category
- Related Entities user category
- Parliament member user category
- General public user category

4.1.9.2 User level

Each user category may consist of one or more user levels. The super administrator will be able to add a new user level to a particular user category. The super administrator will be able to search and filter user levels using user categories and view & edit an individual user level

details. Also they will be able to enable or disable a user level or delete a user level from the system.

When creating a user level, super admin should select the relevant user category and assign the necessary user privileges (permission). Also super admin will be able to remove the assigned privileges or grant a new privileges form the existing user level.

4.1.9.3 Electoral Process steps (tracker step)

The super administrator will be able to add a new Electoral Process Steps to the system. Also they will be able to view the list of existing Electoral Process Steps, view & edit an individual Electoral Process Steps details, enable or disable an Electoral Process Steps or delete an existing Electoral Process Steps from the system.

4.1.9.4 Category

The super administrator will be able to add a new Category to the system. Also they will be able to view the list of existing Category, view & edit an individual Category details, enable or disable a Category or delete an existing Category from the system.

4.1.9.5 Sub Category

The super administrator will be able to add a new Sub Category to the system. Also they will be able to view the list of existing Sub Category, view & edit an individual Sub Category details, enable or disable a Sub Category or delete an existing Sub Category from the system.

4.1.9.6 Constitutional or legal change

The super administrator will be able to add a new Constitutional or legal change to the system. Also they will be able to view the list of existing Constitutional or legal change, view & edit an individual Constitutional or legal change details, enable or disable a Constitutional or legal change or delete an existing Constitutional or legal change from the system.

4.1.9.7 Priority

The super administrator will be able to add a new Priority to the system. Also they will be able to view the list of existing Priority, view & edit an individual Priority details, enable or disable a Priority or delete an existing Priority from the system.

4.1.9.8 Period of time

The super administrator will be able to add a new Period of Time to the system. Also they will be able to view the list of existing Period of Time, view & edit an individual Period of Time details, enable or disable a Period of Time or delete an existing Period of Time from the system.

4.1.9.9 Level of importance

The super administrator will be able to add a new Level of importance to the system. Also they will be able to view the list of existing Level of importance, view & edit an individual Level of importance details, enable or disable a Level of importance or delete an existing Level of importance from the system.

4.1.9.10 Responsible Organizations / stakeholders

The super administrator will be able to add a new responsible organization / stakeholders to the system. Also they will be able to view the list of existing responsible organizations / stakeholders, view & edit an individual responsible organizations / stakeholders details, enable or disable a responsible organizations / stakeholders or delete an existing responsible organizations / stakeholders from the system.

4.1.9.11 Action taken category

The super administrator will be able to add a new Action taken category to the system. Also they will be able to view the list of existing Action taken category, view & edit an individual Action taken category details, enable or disable an Action taken category or delete an existing Action taken category from the system.

4.1.9.12 Further action needed

The further actions needed regarding the recommendations are predefined under this further actions needed section.

The super administrator will be able to add a new Further action needed to the system. Also they will be able to view the list of existing Further action needed, view & edit an individual Further action needed details, enable or disable a Further action needed or delete an existing Further action needed from the system.

4.1.9 Report module

The super admin user will be able to generate various reports using this module including. The necessary filtering and search facilities will be included for each report. For example, PAFFREL users will be able to download all the recommendations or proposals in the tracker or comments related to the recommendations or proposals or rating and polls results as a report. The required reports types will be decided by the inputs from the client. The reports can be downloaded in excel, PDF and any other agreed format.

4.1.10 Update social media links

The super admin user will be able to update the relevant social media links of the system.

4.1.11 Unrelated Proposal Management

The super admin user will be able to enable or disable the frontend webpage of the unrelated proposal that are received. The list of unrelated proposals can be viewed by the Super Admin User as well as other PAFFREL user levels.

4.1.12 Configure pending time periods of recommendation or proposals till approval/updates (traffic light system)

The super admin user will be able to configure pending time periods (7 days, 14 days, 1month) of the dashboard's delayed requests indicator.

4.1.13 Frontend website content management

The super admin user will be able to manage the front website contents through the CMS.

4.1.14 Enable / disable comment facility

The super admin user will be able to enable or disable the comment facility of an individual recommendation / proposal record or comment facilities of all the records by selecting “Select All” option.

4.1.15 Enable / disable like & dislike facility

The super admin user will be able to enable or disable the like & dislike facility of an individual recommendation or proposal or like & dislike facilities of all the records by selecting “Select All” option.

4.1.16 Enable / disable general poll facility

The super admin user will be able to enable or disable the general poll facility in the frontend website.

4.2 Approval user level

The approval user has authority to approve any contents that has to be updated to the live site and forward it to the approval user level 2. The in house and external comments can be approved by the approval users and with their approval the comment can be published in the public website site. In detail explanation about the capabilities of this user level and the features that are available are mentioned here. All the contents and recommendation or proposal requests forward by any user categories will have to go through the PAFFREL approval (level 1 & level 2 user approval or level 2 user approval) before publishing to the website. Without the approval of the PAFFREL level 2 user, content will not be published to the website.

4.2.1 Login

The approval user will be able to login to the system by entering their username and the password. The login page will have a ‘forgot password’ facility to reset their password if a user forgets their password.

4.2.2 Dashboard

Once the approval user loges in to the system, the user will be initially redirected to a dashboard containing various indicators and analytical information. These dashboard contents will be depicted in user friendly manner using graphs and charts. The display contents will be finalized in the design stage form the inputs of the client.

The CMS dashboard will contain the numbers of representations which will show the number of recommendations or proposal received, the number of unopened recommendations or proposal, the addressed number of recommendations or proposal, the number of approved content, the number of non-approved contents to the users.

The dashboard will include a categorization of new recommendation or proposal records according to their pending days till the final approval or updates. For example, when a recommendation or proposal received, the unopened record can have a green color indicating that it’s a new one and if it remains unopen after seven days then it will turn red indicating it’s unattended for seven days and after fourteen days it turns to an another color.

4.2.3 View and update existing recommendations/ proposals

The approval user will be able to search and filter existing records using various criteria and view result records list and individual record details. The search and filtering criteria will include date range, category, sub category, priority level, steps, responsible Organizations / stakeholders, level of importance and other relevant criteria which identified by the client or the developer.

In an individual record, the user will be able to view all the necessary details of the recommendation / proposal and track their current status. The approval user will have an option of submitting in-house comments to a record. Also they will be able to update the record details when necessary, upload any document, research paper etc. to the individual record and updated the status of the record and forward to the next step. When updating the status user will be able to add a brief summary to the status update which will be visible in the respective step of the frontend tracker record. The recommendations or proposal list can be downloaded as a .CSV file.

The approval user will be able to participate in polls & ratings of a recommendation / proposal records

4.2.4 Submit new recommendations/proposals

The approval user will be able to submit a new recommendation or a proposal to the system. They will have to fill all the required details in-order to submit a new record.

4.2.5 Approve recommendations/proposals status update

The approval user will be able to approve the recommendation/ proposal status update request received from the PAFFREL data entry users or any other users of authorized user levels. The approval user will receive an email notification when a new status update request is received.

When new status update request is received, it will list in the 'approve recommendation/ proposal status update' list and approval user will be able to view the status and the comments submitted by the original user. The approval user can either approve the status update or reject the status update with a reject comment. If the status update request is rejected, it will automatically forward back to the original user with the reject comment. When approving the status request, user will be able to add a brief summary to the status update which will be visible in the respective step of the frontend tracker record.

4.2.6 Approve comments

The approval user will be able to approve the comments request submit by the other authorized users. The comments can be in-house comments or public comments. Public comments are submitted by the general public and in-house comments are submitted by the PAFFREL users.

When a new in-house or public comment request is received, it will list in the ‘Approve comment list’ and approval user will be able to view and approve the comment. The approval user will be able to reject a comment request. once the comment is approved, it will show in the relevant recommendation/ proposal record. The comments can be downloaded by any backend PAFFREL user as a .CSV file.

4.2.7 Poll/ Rating Management

The approval user will be able to create and add a new poll or rating to an existing recommendation / proposal record or add a rating to individual proposals of a recommendation (for example if a recommendation have 4 proposals, then a rating can be added to all four proposals individually and also rating can be added to the recommendation as well) where other users (general public or other user categories) will be able to participate and show their opinion. When creating a poll or rating, their content can be change by the user suiting the recommendation. After adding a poll or rating to a record, an approval user will be able to enable or disable the poll / rating when necessary. Also approval user will be able to create a poll for the general poll facility in the frontend website.

Each existing or completed poll / rating will list in the ‘Poll / rating list’. By clicking the individual poll /rating record, approval user will be able to see their results. The results can be exported to excel, PDF and any other agreed format.

4.2.8 Filter and Search

The approval user will be able to search and filter the proposals or recommendations. The filtering options will contain, date range, by any category or sub category. Further a keyword search can be performed by the user as well.

4.2.9 Election monitoring organizations (EMO) management

The approval user will be able to add a new EMO to the system. Also they will be able to view the list of existing EMOs, view & edit an individual EMO details, enable or disable an EMO or delete an existing EMO from the system.

Under each EMO, approval user will be able to create new user account for that particular EMO. They will be able to search and filter registered EMO users and view & edit an individual EMO user details. Also they will be able to enable or disable a EMO user account or delete a EMO user account from the system. A EMO user category has two user levels, approval user and data entry user. So when creating a new user account for an EMO, approval user should select the appropriate user level for that new user.

When creating a new EMO user account, approval user should select tracker step or steps which will associate with that particular EMO user. By selecting the step or step, that particular user will be able to update the assigned tracker step status.

4.2.10 Related Entities management

The approval user will be able to add a new Related Entities to the system. Also they will be able to view the list of existing related entities, view & edit an individual related entities details, enable or disable a related entities or delete an existing related entities from the system. The designated Related Entities will be election commission, attorney general department, parliament secretary and cabinet office.

Under each Related Entities, approval user will be able to create new user account for that particular related entities. They will be able to search and filter registered related entities users and view & edit an individual related entities user details. Also they will be able to enable or disable a related entities user account or delete a related entities user account from the system. A related entities user category has two user levels, approval user and data entry user. So when creating a new user account for related entities, approval user should select the appropriate user level for that new user.

When creating a new related entities user account, approval user should select tracker step or steps which will associate with that particular related entities user. By selecting the step or step, that particular user will be able to update the assigned tracker step status.

4.2.11 Parliament member management

The approval user will be able to add a new parliament member to the system using parliament member registration process. The approval user will create a user account behalf of each parliament member and email the user name and the temporary password to the parliament member or their nominee. Then parliament member or their nominee can log onto the system and reset their password and start their interaction with the system.

The approval user will be able to view the list of registered parliament members, view and edit individual parliament member account details, enable or disable a parliament member account or delete an existing parliament member account from the system.

When creating a new parliament member user account, approval user should select tracker step or steps which will associate with that particular parliament member user account.

4.2.12 Public user management

The approval user will be able to view the list of the public users who are registered with the system. They will be able to search and filter registered public users and view & edit an individual public user details. Also they will be able to enable or disable a public user account or suspend a public user account from the system.

4.2.13 Report module

The approval user will be able to generate various reports using this module including. The necessary filtering and search facilities will be included for each report. For example, PAFFREL users will be able to download all the recommendations or proposals in the tracker or comments related to the recommendations or proposals or rating and polls results as a report. The required reports types will be decided by the inputs from the client. The reports can be downloaded in excel, PDF and any other agreed format.

4.2.14 Unrelated Proposal List

The data entry user will be able to view the unrelated proposal list.

4.2.15 Internal Communication Request

The approval user has the option of sending internal messages to other PAFFREL users. Also they can view the internal requests lists and reply to them. When a new internal communication message is received, it will be notified in the dashboard notification panel and by clicking it, user will be able to view the request.

4.2.16 Approval Process Explanation

There will be two levels of approval users at PAFFREL. Any recommendations or proposal received through live site will be reviewed by the Level one approval user, who will decide whether the submissions are appropriate or not. If it's the appropriate submission, then the user will approve it and then the submission will be sent to the Level two approval user's approval. With the approval of Level two user the recommendation will be made visible to the live site. Just in case if it is decided that any proposal that is received are a good proposal but it is unrelated to the PAFFREL, then it can be marked as unrelated and those proposals will be listed under the unrelated proposals list.

Further any recommendation or proposals submitted by other entities will be subjected to the mandatory approval of level 02 approval user. The submission for approval of the recommendation or proposal will be visible for both the levels of approval users and There are two ways of approving a request. One is, first request is approved by the approval level 1 user and then forward it to the approval level 2 user. Second one is request is seen and approved by the approval level 2 before the approval level 1 user's approval and publish the content to the live site.

Moreover, any comments that are submitted by the general public can be approved by level one approval user, through which the comment will be shown in the live site.

4.3 Data entry user level

The data entry user has the access to input data to the system. The data can be that are any recommendations received in a physical manner to the PAFFREL users or and updates to the existing records can be modified by this user. In detail explanation about the capabilities of this user level and the features that are available are mentioned here.

4.3.1 Login

The data entry user will be able to login to the system by entering their username and the password. The login page will have a ‘forgot password’ facility to reset their password if a user forgets their password.

4.3.2 Dashboard

Once the data entry user loges in to the system, the user will be initially redirected to a dashboard containing various indicators and analytical information. These dashboard contents will be depicted in user friendly manner using graphs and charts. The display contents will be finalized in the design stage form the inputs of the client.

The CMS dashboard will contain the numbers of representations which will show the number of recommendations or proposal received, the number of unopened recommendations or proposal, the addressed number of recommendations or proposal, the number of approved content, the number of non-approved contents to the users.

The dashboard will include a categorization of new recommendation or proposal records according to their pending days till the final approval or updates. For example, when a recommendation or proposal received, the unopened record can have a green color indicating that it’s a new one and if it remains unopen after seven days then it will turn red indicating it’s unattended for seven days and after fourteen days it turns to an another color.

4.3.3 View and update existing recommendations/ proposals

The data entry user will be able to search and filter existing records using various criteria and view result records list and individual record details. The search and filtering criteria will include date range, category, sub category, priority level, steps, responsible Organizations /

stakeholders, level of importance and other relevant criteria which identified by the client or the developer.

In an individual record, the user will be able to view all the necessary details of the recommendation / proposal and track their current status. The data entry user will have an option of submitting in-house comments to a record. The data entry user will be able to update the record details when necessary, upload any document, research paper etc. to the individual record and updated the status of the record and forward to PAFFREL approval user level to approve the status & updates. An email will be delivered to all the PAFFREL approval users, indicating the new status update request. When updating the status, user will be able to add a brief summary to the status update which will be visible in the respective step of the frontend tracker record.

The data entry user will be able to participate in polls & ratings of a recommendation / proposal records. The recommendations can be downloaded by any backend user as a .CSV file.

4.3.4 Submit new recommendations/proposals

The data entry user will be able to submit a new recommendation or a proposal to the system. These new records can either from PAFFREL or 3rd party. They will have to fill all the required details in-order to submit a new record. Once the new record is submitted, email notification will be delivered to the approval user.

4.3.5 Unrelated Proposal List

The data entry user will be able to view the unrelated proposal list.

4.3.6 Internal Communication Request

The data entry user can view the internal requests lists send by the other users and reply to them. When a new internal communication message is received, it will be notified in the dashboard notification panel and by clicking it, user will be able to view the request.

4.4 Management user level

The user can manage various levels of tasks and the privileges they, can input details about recommendations and send for approval users. In detail explanation about the capabilities of this user level and the features that are available are mentioned here.

4.3.1 Login

The management user will be able to login to the system by entering their username and the password. The login page will have a ‘forgot password’ facility to reset their password if a user forgets their password.

4.4.2 Dashboard

Once the management user logs in to the system, the user will be initially redirected to a dashboard page which consist of a management dashboard and a dashboard containing various indicators and analytical information. Using this management dashboard, management of the PAFFREL will be able to get management level overlook about the progress of the electoral recommendation tracker system. These dashboard contents will be depicted in user friendly manner using graphs and charts. The display contents will be finalized in the design stage form the inputs of the client.

The CMS dashboard will contain the numbers of representations which will show the number of recommendations or proposal received, the number of unopened recommendations or proposal, the addressed number of recommendations or proposal, the number of approved content, the number of non-approved contents to the users. The recommendations can be downloaded by any backend user as a .CSV file.

The dashboard will include a categorization of new recommendation or proposal records according to their pending days till the final approval or updates. For example, when a recommendation or proposal received, the unopened record can have a green color indicating that it’s a new one and if it remains unopen after seven days then it will turn red indicating it’s unattended for seven days and after fourteen days it turns to an another color.

4.4.3 View existing recommendations/ proposals

The management user will be able to search and filter existing records using various criteria and view result records list and individual record details. The search and filtering criteria will include date range, category, sub category, priority level, steps, responsible Organizations / stakeholders, level of importance and other relevant criteria which identified by the client or the developer.

In an individual record, the user will be able to view all the necessary details of the recommendation / proposal and track their current status. The management user will have an option of submitting in-house comments to a record. Also they will be able to update the record details when necessary, upload any document, research paper etc. to the individual record and updated the status of the record and approve the content. When updating the status user will be able to add a brief summary to the status update which will be visible in the respective step of the frontend tracker record. The recommendations or proposal list can be downloaded as a .CSV file.

The management user will be able to participate in polls & ratings of a recommendation / proposal records.

4.4.4 Submit new recommendations/proposals

The management user will be able to submit a new recommendation or a proposal to the system. These new records can either from PAFFREL or 3rd party. They will have to fill all the required details in-order to submit a new record. Once the new record is submitted, email notification will be delivered to the approval user.

4.4.5 Approve recommendations/proposals status update

The management user will be able to approve the recommendation/ proposal status update request received from the PAFFREL data entry users or any other users of authorized user levels. The management user will receive an email notification when a new status update request is received.

When the management users approve the recommendation or proposal, they will have three options.

- Approve the recommendation / proposal and publish to the system.
- Reject the recommendation / proposal but tag as an unrelated. In this, the rejected recommendation / proposal will not be published to the tracker but listed in the unrelated proposal list.
- Reject the recommendation / proposal.

When new status update request is received, it will list in the ‘approve recommendation/proposal status update’ list and approval user will be able to view the status and the comments submitted by the original user. The approval user can either approve the status update or reject the status update with a reject comment. If the status update request is rejected, it will automatically forward back to the original user with the reject comment.

When approving the step status update, this user will be able to add a brief summary to the status update or edit the brief summary already entered by other PAFFREL users. This brief summary about the step status update will be visible in the respective step of the frontend tracker record.

Any content can be updated only with the management user level users, who are the level two approval users as mentioned in section 4.2.14.

4.4.6 Approve comments

The management user will be able to approve the comments request submit by the other authorized users. The comments can be in-house comments or public comments. Public comments are submitted by the general public and in-house comments are submitted by the PAFFREL users.

When a new in-house or public comment request is received, it will list in the ‘Approve comment list’ and approval user will be able to view and approve the comment. The management user will be able to reject a comment request. once the comment is approved, it will show in the relevant recommendation/ proposal record.

4.4.7 Report module

The management user will be able to generate various reports using this module including. The necessary filtering and search facilities will be included for each report. For example,

PAFFREL users will be able to download all the recommendations or proposals in the tracker or comments related to the recommendations or proposals or rating and polls results as a report. The required reports types will be decided by the inputs from the client. The reports can be downloaded in excel, PDF and any other agreed format.

4.4.8 Unrelated Proposal List

The management user will be able to view the unrelated proposal list.

4.4.9 Internal Communication Request

The management user has the option of sending internal messages to other PAFFREL users. Also they can view the internal requests lists and reply to them. When a new internal communication message is received, it will be notified in the dashboard notification panel and by clicking it, user will be able to view the request.

5. System features of election monitoring organization (EMO) user category

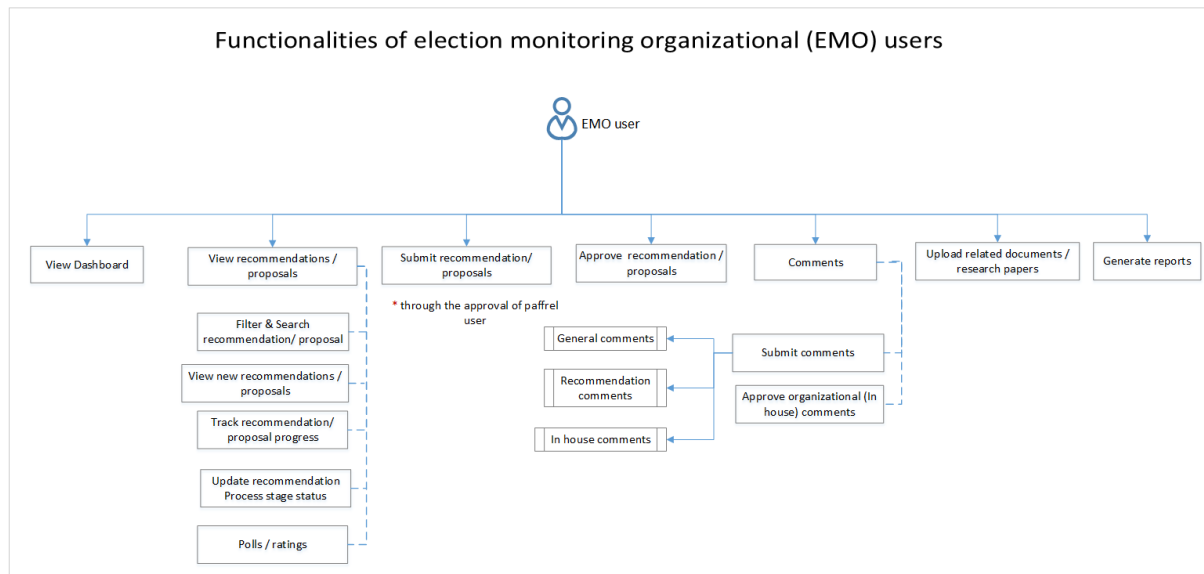


Figure 5 Functionalities of election monitoring organizational (EMO) users

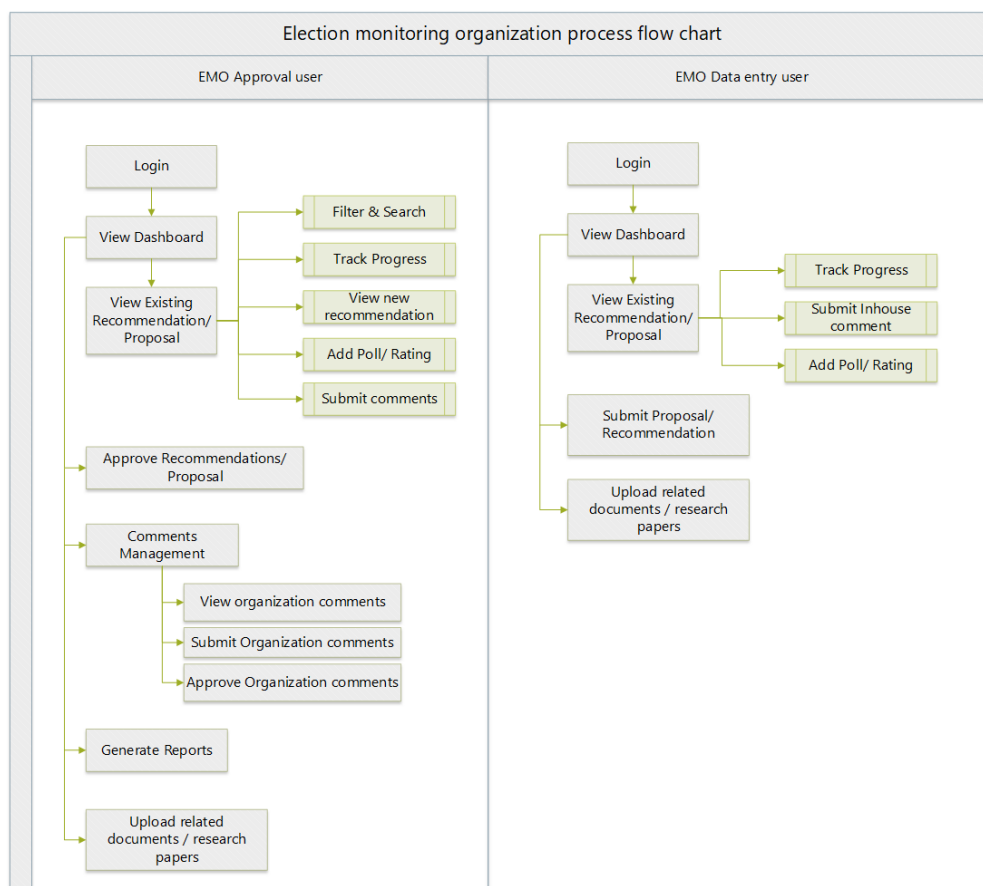


Figure 6 Election Monitoring organization process flow chart

5.1 EMO approval user level

5.1.1 Login

The EMO Approval user will be able to login to the system by entering their username and the password. The login page will have a ‘forgot password’ facility to reset their password if a user forgets their password.

5.1.2 Dashboard

Once the EMO Approval user logs in to the system, the user will be initially redirected to a dashboard containing various indicators and analytical information. The approval user will be able to see the notifications of new approval pending requests in their dashboard. These dashboard contents will be depicted in user friendly manner using graphs and charts. The display contents will be finalized in the design stage form the inputs of the client.

5.1.3 View and update existing recommendations/ proposals

The EMO Approval user will be able to search and filter existing records using various criteria and view result records list and individual record details. The search and filtering criteria will include date range, category, sub category, priority level, steps, responsible Organizations / stakeholders, level of importance and other relevant criteria which identified by the client or the developer.

In an individual record, the user will be able to view all the necessary details of the recommendation / proposal and track their current status. The EMO Approval user will have an option of submitting organization comments to a record behalf of the relevant EMO. Also they will be able to upload any document, research paper etc. to the individual record. The EMO Approval user will be able to updated the status of the record and forward to PAFFREL approval user level to approve the status update. When updating the status user will be able to add a brief summary to the status update which will be visible in the respective step of the frontend tracker record. An email will be delivered to all the PAFFERL approval users, indicating the new status update request.

The Approval user will be able to participate in polls & ratings of a recommendation / proposal records.

Further the user can filter the existing recommendations or proposals by date range, category etc. and search for the record. Even the user can search using keywords.

5.1.4 Submit new recommendations/proposals

The EMO Approval user will be able to submit a new recommendation or a proposal to the system behalf of the relevant EMO. They will have to fill all the required details in-order to submit a new record. Once the new record is submitted, email notification will be delivered to the PAFFREL approval user. The submitted new record will have to be approved by the PAFFREL approval user in-order to appear in the system.

5.1.5 Approve recommendations/proposals

The EMO Approval user will be able to approve new recommendation or a proposal forward as draft by the PAFFREL. When approving the new recommendation or proposal, they will be able to input their organizational comments or submit a new proposal based on the new recommendation to the existing record. Once they approve the draft proposal forwarded by the system, it will proceed to the next step of the tacker and status will be automatically updated.

If they submitted a new proposal based on the forwarded draft, it will then forward to the PAFFREL approval user for approval. Once the new proposal request is submitted, email notification will be delivered to the PAFFREL approval user. The submitted new proposal will have to be approved by the PAFFREL approval user in-order to appear in the system.

5.1.6 EMO comments management

The EMO approval user will be able to approve the comments request submit by the EMO data entry users. When a new in-house comment request is received, it will list in the ‘Approve comment list’ and approval user will be able to view and approve the comment. The approval user will be able to reject a comment request. once the comment is approved, it will then forward for PAFFREL user approval and after it approved, it will show in the relevant recommendation/ proposal record.

The EMO approval user will be able to submit an organizational comment to an existing record or new record.

5.1.7 Report module

The user will be able to generate various reports using this module including. The necessary filtering and search facilities will be included for each report. The required reports types will be decided by the inputs from the client. The reports can be downloaded in excel, PDF and any other agreed format.

5.2 EMO Data entry user level

5.2.1 Login

The EMO data entry user will be able to login to the system by entering their username and the password. The login page will have a ‘forgot password’ facility to reset their password if a user forgets their password.

5.2.2 Dashboard

Once the EMO data entry user logs in to the system, the user will be initially redirected to a dashboard containing various indicators and analytical information. These dashboard contents will be depicted in user friendly manner using graphs and charts. The display contents will be finalized in the design stage form the inputs of the client.

The CMS dashboard will contain the numbers of representations which will show the number of recommendations or proposal received, the number of unopened recommendations or proposal, the addressed number of recommendations or proposal, the number of approved content, the number of non-approved contents to the users. The recommendations can be downloaded by any backend user as a .CSV file.

5.2.3 View and update existing recommendations/ proposals

The EMO data entry user will be able to search and filter existing records using various criteria and view result records list and individual record details. The search and filtering criteria will include date range, category, sub category, priority level, steps, responsible Organizations / stakeholders, level of importance and other relevant criteria which identified by the client or the developer.

In an individual record, the user will be able to view all the necessary details of the recommendation / proposal and track their current status. The data entry user will have an option of submitting organizational comments to a record. Also they will be able to upload any document, research paper etc. to the individual record and updated the status of the record and forward to the EMO approval user to approve the content. When updating the status user will be able to add a brief summary to the status update which will be visible in the respective step of the frontend tracker record.

The data entry user will be able to participate in polls & ratings of a recommendation / proposal records.

5.2.4 Submit new recommendations/proposals

The EMO data entry user will be able to submit a new recommendation or a proposal to the system. They will have to fill all the required details in-order to submit a new record. Once the new record is submitted, email notification will be delivered to the EMO approval user for approval.

6 System features of related organization user category

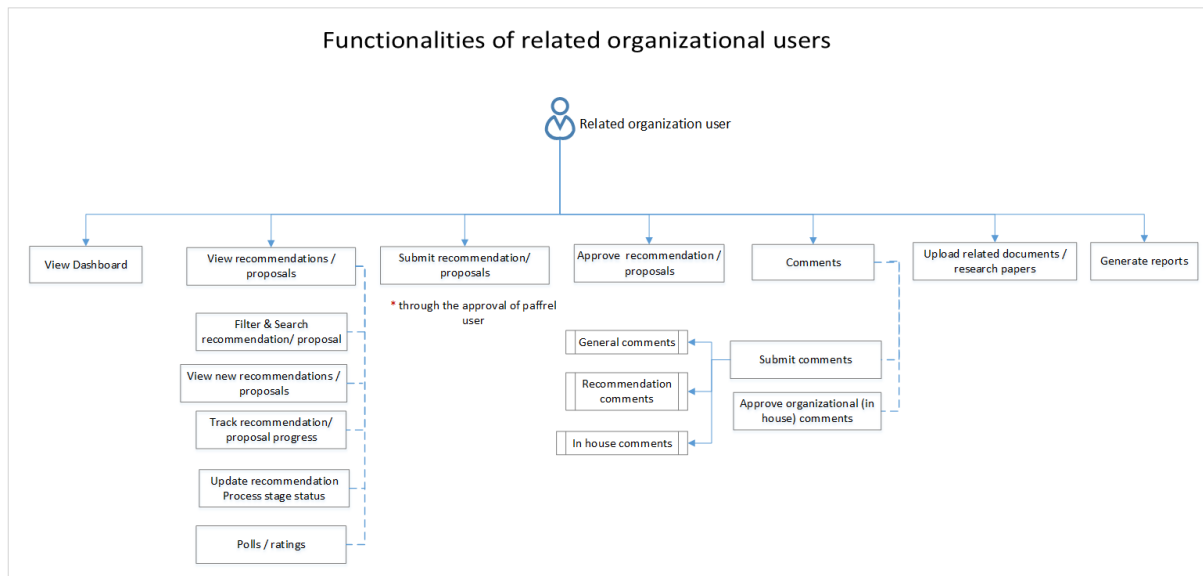


Figure 8 Functionalities of related entities users

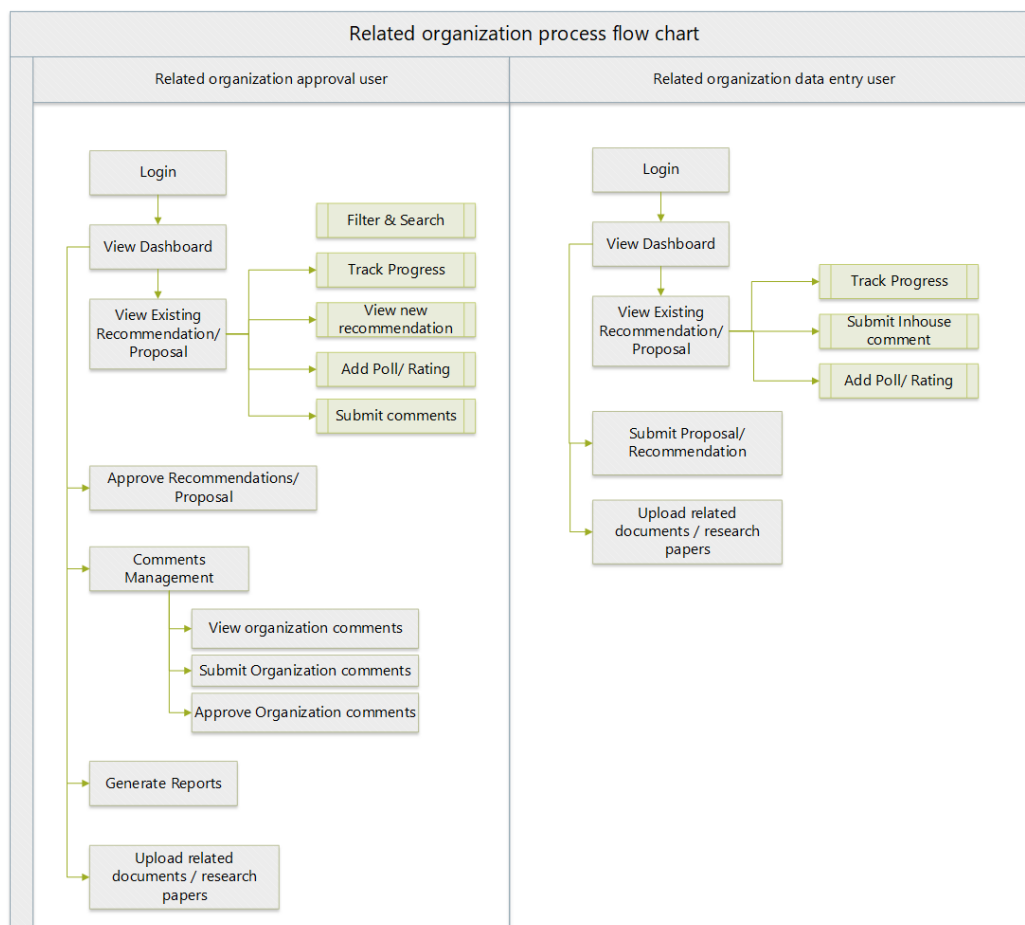


Figure 7 Related entities process flow chart

6.1 Related entity approval user level

6.1.1 Login

The related entities Approval user will be able to login to the system by entering their username and the password. The login page will have a ‘forgot password’ facility to reset their password if a user forgets their password.

6.1.2 Dashboard

Once the related entities Approval user logs in to the system, the user will be initially redirected to a dashboard containing various indicators and analytical information. The approval user will be able to see the notifications of new approval pending requests in their dashboard. These dashboard contents will be depicted in user friendly manner using graphs and charts. The display contents will be finalized in the design stage form the inputs of the client.

6.1.3 View and update existing recommendations/ proposals

The related entities Approval user will be able to search and filter existing records using various criteria and view result records list and individual record details. The search and filtering criteria will include date range, category, sub category, priority level, steps, responsible Organizations / stakeholders, level of importance and other relevant criteria which identified by the client or the developer.

In an individual record, the user will be able to view all the necessary details of the recommendation / proposal and track their current status. The related entities Approval user will have an option of submitting organization comments to a record behalf of the relevant related entities. Also they will be able to upload any document, research paper etc. to the individual record. The related entities Approval user will be able to updated the status of the record and forward to PAFFREL approval user level to approve the status update. When updating the status user will be able to add a brief summary to the status update which will be visible in the respective step of the frontend tracker record. An email will be delivered to all the PAFFREL approval users, indicating the new status update request.

The Approval user will be able to participate in polls & ratings of a recommendation / proposal records.

Further the user can filter the existing recommendations or proposals by date range, category etc. and search for the record. Even the user can search using keywords.

6.1.4 Submit new recommendations/proposals

The related entities Approval user will be able to submit a new recommendation or a proposal to the system behalf of the relevant related entities. They will have to fill all the required details in-order to submit a new record. Once the new record is submitted, email notification will be delivered to the PAFFREL approval user. The submitted new record will have to be approved by the PAFFREL approval user in-order to appear in the system.

6.1.5 Approve recommendations/proposals

The related entities Approval user will be able to approve new recommendation or a proposal forward as draft by the PAFFREL. When approving the new recommendation or proposal, they will be able to input their organizational comments or submit a new proposal based on the new recommendation to the existing record. Once they approve the draft proposal forwarded by the system, it will proceed to the next step of the tacker and status will be automatically updated.

If they submitted a new proposal based on the forwarded draft, it will then forward to the PAFFREL approval user for approval. Once the new proposal request is submitted, email notification will be delivered to the PAFFREL approval user. The submitted new proposal will have to be approved by the PAFFREL approval user in-order to appear in the system.

6.1.6 Related Entities comments management

The related entities approval user will be able to approve the comments request submit by the related entities data entry users. When a new in-house comment request is received, it will list in the 'Approve comment list' and approval user will be able to view and approve the comment. The approval user will be able to reject a comment request. Once the comment is approved, it will then forward for PAFFREL user approval and after it approved, it will show in the relevant recommendation/ proposal record.

The related entities approval user will be able to submit an organizational comment to an existing record or new record.

6.1.7 Report module

The related entities Approval user will be able to generate various reports using this module. The necessary filtering and search facilities will be included for each report. The required reports types will be decided by the inputs from the client. The reports can be downloaded in excel, PDF and any other agreed format.

6.2 Related Entities Data entry user level

6.2.1 Login

The related entities data entry user will be able to login to the system by entering their username and the password. The login page will have a ‘forgot password’ facility to reset their password if a user forgets their password.

6.2.2 Dashboard

Once the related entities data entry user loges in to the system, the user will be initially redirected to a dashboard containing various indicators and analytical information. These dashboard contents will be depicted in user friendly manner using graphs and charts. The display contents will be finalized in the design stage form the inputs of the client.

6.2.3 View and update existing recommendations/ proposals

The related entities data entry user will be able to search and filter existing records using various criteria and view result records list and individual record details. The search and filtering criteria will include date range, category, sub category, priority level, steps, responsible Organizations / stakeholders, level of importance and other relevant criteria which identified by the client or the developer.

In an individual record, the user will be able to view all the necessary details of the recommendation / proposal and track their current status. The data entry user will have an option of submitting organizational comments to a record. Also they will be able to upload any document, research paper etc. to the individual record and updated the status of the record and forward to the related entity approval user to approve the content. When updating the status, user will be able to add a brief summary to the status update which will be visible in the respective step of the frontend tracker record.

The data entry user will be able to participate in polls & ratings of a recommendation / proposal records.

6.2.4 Submit new recommendations/proposals

The related entities data entry user will be able to submit a new recommendation or a proposal to the system. They will have to fill all the required details in-order to submit a new record. Once the new record is submitted, email notification will be delivered to the related entities approval user for approval.

7. System features of parliament member user category

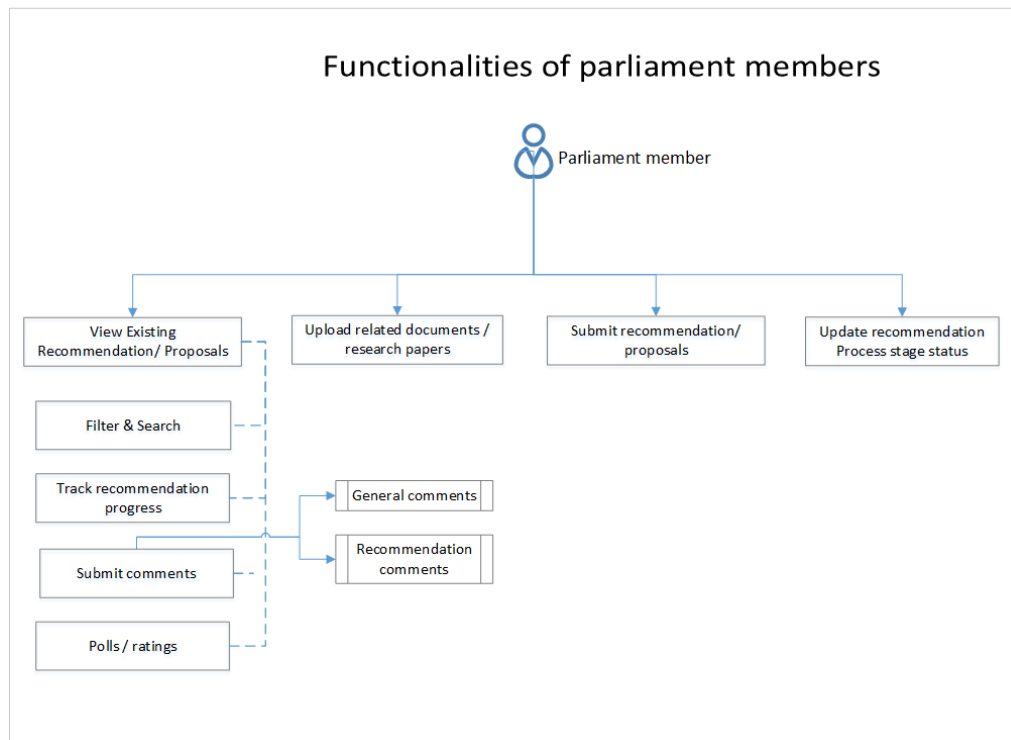


Figure 10 Functionalities of Parliament Members

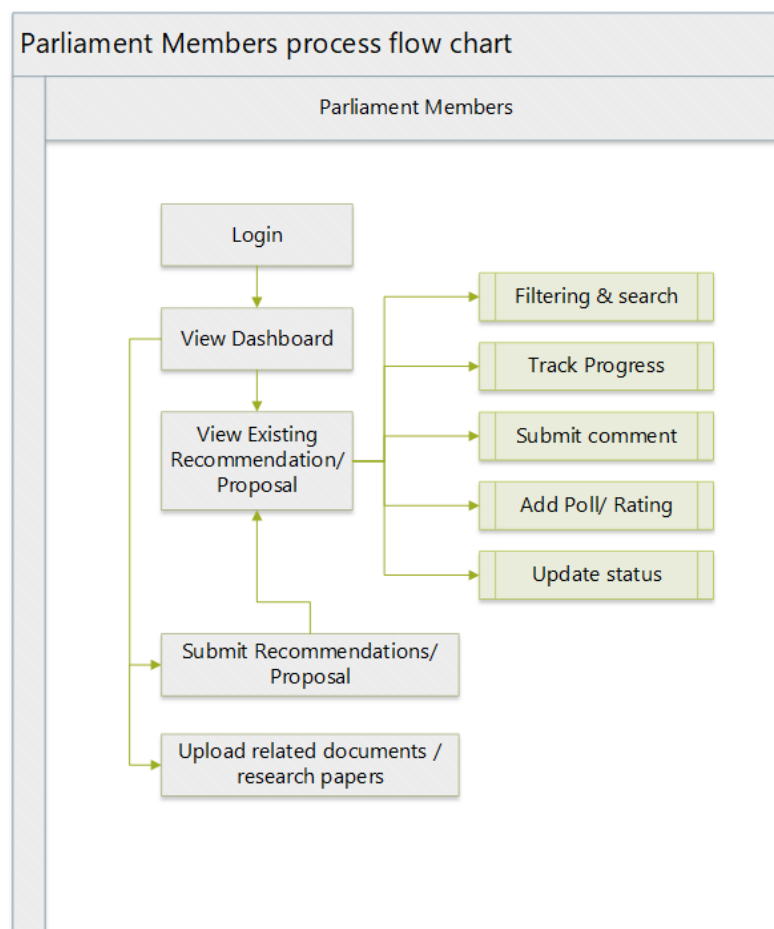


Figure 9 Parliament Members process flow chart

7.1 Login

The Parliament Members will be able to Login to the backend system by entering their username and password. In case if the user has forgotten their password, they can click on the ‘forgot password’ option and reset their password.

7.2 Dashboard

Once the Parliament Member user login to their user account they will be directed to the dashboard area. The dashboard will contain various analytics for them to easily identify and understand in numbers and graphical presentations. Where the presented data in the dashboard are user friendly, the analytical contents that needs to be presented in the dashboard will be further discussed and identified in the UI stage.

7.3 Recommendations/Proposal Tracking

The Parliament Member user can search, filter and view the currently existing recommendations or proposals. The search and filtering criteria will include date range, category, sub category, priority level, steps, responsible Organizations / stakeholders, level of importance and other relevant criteria which were identified by the client or the developer. In an individual record, the user will be able to view all the necessary details of the recommendation / proposal and track their current status. In the meantime, if they have any recommendation or proposal that can also be added as a new record to the system as well. The Parliament Members can also update status of any recommendation or add any comments that are relevant to those and it will be directly presented in the website.

Further, the user will have the facility to approve any recommendations or proposals that have been received, can participate in the polls and ratings sections available in the recommendation profile. In addition, when adding a new recommendation or proposal or updating any recommendation or proposal the user has the privilege to upload the related documents to the system.

Further the user can filter the existing recommendations or proposals by date range, category etc. and search for the record. Even the user can search using keywords. MP can update the status of a recommendation or proposal. When updating the status user will be able to add a brief summary to the status update which will be visible in the respective step of the frontend tracker record.

8. System features of general public user category

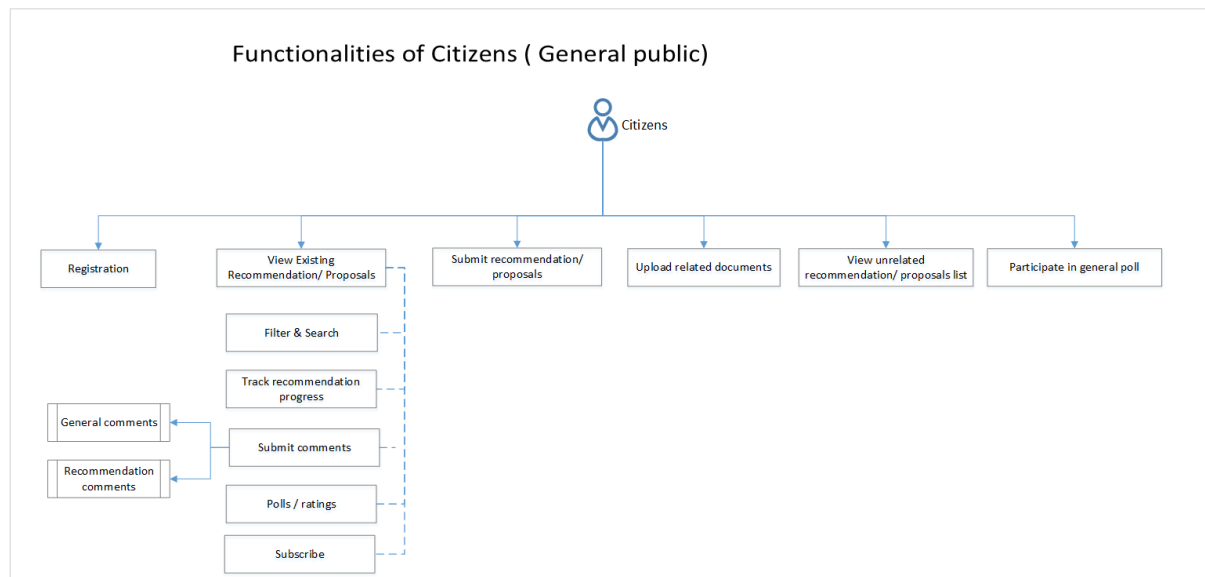


Figure 11 Functionalities of Citizens

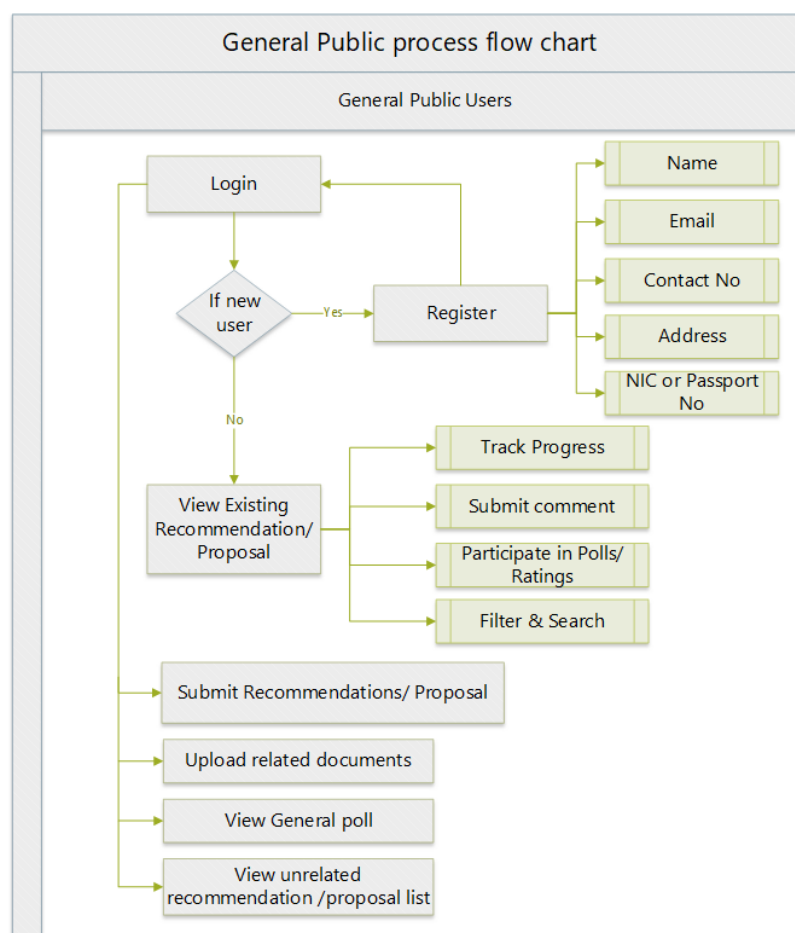


Figure 12 General public process flow chart

8.1 User Registration

The general public will be able to register to the electoral reform tracker if they want to interact with the relevant parties. When registering the user has to enter their email address which will be verified by sending verification email that is entered. With the confirmation of email verification, the user can submit their request of registration. Then the PAFFREL user can decide upon whether to approve the user or not.

8.2 Login

The general public can Login to the frontend by entering their username and password. In case if the user has forgotten their password, they can click on the ‘forgot password’ option and reset their password.

8.3 Dashboard

Once the general public user login to their user account they will be directed to the dashboard area. The dashboard will contain various analytics for them to easily identify and understand in numbers and graphical presentations. In which the presented data in the dashboard are user friendly, the analytical contents that needs to be presented in the dashboard will be further discussed and identified in the UI stage.

8.4 Recommendations/Proposal Tracking

The general public user can search, filter and view the currently existing recommendations or proposals. The search and filtering criteria will include date range, category, sub category, priority level, steps, responsible Organizations / stakeholders, level of importance and other relevant criteria which were identified by the client or the developer. An individual record of a recommendation will have a dedicated profile page for it through which the user will be able to view all the necessary details of the recommendation / proposal and track their current status. In the meantime, if the logged in general public has any recommendation or proposal that can be added as well.

Further, user can participate in the polls and ratings sections available in recommendations profile. In addition, when adding a new recommendation or proposal, the user has the privilege

to upload related documents to the system and any comments related to any of the existing recommendations or proposals.

Where the unregistered general public member can only search, filter and view the recommendations received under various categories by various parties.

8.5 Unrelated Proposal List

The general public will be able to view the unrelated proposal list.

8.6 General Poll

The general public will be able to participate in general poll in the frontend website.

9. Non Functional Requirements

9.1 User Management, Roles and Permissions

The backend will have facility to create user roles with different permission and privilege levels. All the action in the backend will be listed in the permission configuration dashboard. The PAFFREL administrator will be able to grant and remove permission for a user role, add / edit / remove / suspend users on the system, view, sort and filter users in the system and view their profile, manage user roles for any user, and manage allowed fields on their profiles. The backend users will be provided a forgot password mechanism with an email verification. In the backend an audit log will be maintained on all user actions. When a user logs in, their IP address, device type, browser type and account details will be saved in the system log.

9.2 Accessibility

- The website design strictly follows the UI/UX standards define by the ICTA and W3C WCAG guidelines.
- The website will be compliant with the W3C WCAG guidelines, so elderly persons and users with disabilities such where they can adjust the text sizes of the overall content like they can view by increasing the text size of by decreasing the size.
- The given resource can be shared among all allocated contents.
- More details about the accessibility features are attached below.

9.2.1 Info and Relationships

- We will break up content with subheadings for new sections
- We will mark headings with HTML header tags
- We will use lists, tables and other formats where needed
- We will use the correct HTML for all structural elements
- We will use valid HTML everywhere
- We will use clear labels and alternative text on forms

9.2.2 Meaningful Sequence

We will ensure to present content in a meaningful sequence as it is a wide-ranging part of web accessibility. This applies to all elements of all pages. A sequence is “meaningful” if the order of the content within it cannot be changed without altering its meaning.

We will make sure to:

- Present all content in a meaningful order
- Separate navigation menus from the content
- Use paragraphs in order
- Nest headings from H1 downwards to show their relative importance
- Choose whether a list needs numbering or not
- Use valid HTML

9.2.3 Sensory Characteristics

Getting sensory characteristics right is generally a case of applying common sense. As there are no technical requirements, just good and sensible copywriting, we will:

- Use text labels to elements in addition to sensory characteristics
- Not use instructions that only use sensory characteristics
- Avoid instructions that rely on sound

9.2.4 Use of Color

- We will ensure no instructions & information rely on color alone.

9.2.5 Audio Control

- We will not have any audio that plays automatically.

9.2.6 Keyboard

- We will ensure users can access all elements of the website using only a keyboard

- We will ensure there are no specific timings needed for keystrokes, such as for example holding down ‘Enter’ for three seconds to submit a form

9.2.7 No Keyboard Trap

- All elements on the website can be navigated to and away from by keyboard only using the ‘tab’ or arrow keys.

9.2.8 Pause, Stop, Hide

- We will ensure moving, blinking or scrolling content has a control to pause, stop or hide it.
- We will ensure auto-updating content has a control to pause, stop, hide or control the frequency of updates.

9.2.9 Three Flashes or Below Threshold

- We will not add anything to the website that flashes more than three times per second.

9.2.10 Page Titled

- We will give each page on the website a unique and descriptive meta title.

9.2.11 Focus Order

- We will ensure the focus order of each web page follows a sequence that preserves the meaning and functionality of the page.

9.2.12 Link Purpose (In Context)

We will make sure that for each link on your website:

- The purpose of the link is clear from the link text or

- The purpose of the link is clear from the surrounding content, meaning the same sentence, paragraph or cell in a table; or
- If the link is an image, the alt text of the image makes the link purpose clear; and
- Links with the same destination have the same description (but links won't share a description if they point to different places).

9.2.13 Focus Visible

- When an element has keyboard focus, it will show a visual indication.

9.2.14 Page Break Navigation

If the content has page break locators, we will provide users with a way to navigate to and between them:

- In HTML we will add page list navigation using `<nav role="doc-pagelist">`
- We will then add designations using ``

9.2.15 Pointer Gestures

Where there is a function that requires a multi-point or path-based gesture, we will provide a way for a user to operate the same function with a single pointer.

For example:

- Where a map might use pinch and zoom it will also have + and – controls operated by a single click or tap.
- A carousel operated by a series of swipes will also have 'forward' and 'back' buttons

9.2.16 Pointer Cancellation

- We will ensure that actions are only taken when a pointer is clicked and released within the boundary of the target.

- We will ensure actions are aborted where the pointer is released outside the boundary of the target.

9.2.17 Label in Name

- We will ensure that the text label and programmatic name of components match.
- We will ensure actions are aborted where the pointer is released outside the boundary of the target.

9.2.18 Motion Actuation

- We will ensure users can enable and disable gesture and movement-based controls.
- We will provide a standard interface (such as a button) in addition to motion and gesture controls.

9.2.19 Language of Page

- We will set the default language of each webpage using the lang HTML attribute.

9.2.20 On Focus

- We will ensure no element changes purely by receiving focus.
- We will avoid both behavioral and visual modifications.

9.2.21 On Input

We will ensure no elements change on input. Some examples are:

- Forms will not auto-submit when all fields are filled – as this would prevent users from checking and editing what they have written.
- Focus (the field where the user will input next) will not automatically jump to the next field in a form once a field is complete.

- Using a control (like selecting yes or no) will not automatically perform the action (for example, selecting to subscribe to a newsletter in a check box will not automatically subscribe the user, they will be able to click a submit button to confirm their decision).

9.2.22 Error Identification

- We will identify and explain to the user any mistakes that can be detected automatically.
- We will add error explanations close to the error, showing what is wrong and how to fix it.

9.2.23 Labels or Instructions

- We will use descriptive labels on form fields and controls.
- We will provide text instructions at the beginning of a form or section of a form.
- We will show users the expected format of free text entries.
- We will indicate required fields.
- We will use text to identify required fields that have been missed.

9.2.24 Name, Role, Value

- We will use HTML specifications for any script that is authored for the website.
- If a plugin or other element authored by a third party is used, we will make sure it uses valid HTML markup.

9.2.25 Identify Input Purpose

- We will specify the intention of each input field with input type= “type”
- We will use specific autocomplete values to allow the user’s browser to prefill fields where it already has the data

9.2.26 Contrast (Minimum)

We will make sure the contrast ratio between the text and background is at least 4.5:1.

We will do this by:

- Using a light background and dark text; or
- Using a dark background and light text; and
- Using a color contrast checker to verify your choice.

9.2.27 Images of Text

- We won't use an image of text when plain text can be used
- We will display quotes as text rather than images
- We will use CSS to style headings as text
- We will use CSS to style navigation menus as text

9.2.28 Non-Text Contrast

- We will ensure user controls have a contrast of at least 3:1 to the color around them;
- Where controls change color on focus or use, we will ensure the colors used have a contrast of at least 3:1; and
- We will ensure all graphics (for example icons, graphs and charts) have a contrast of at least 3:1 to the color around them.

9.2.29 Text Spacing

We will ensure content and function remain intact when a user changes:

- Line height to at least 1.5 times the font size;
- Paragraph spacing to at least 2 times the font size;
- Letter spacing to at least 0.12 times the font size; and
- Word spacing to at least 0.16 times the font size.

9.2.30 Content on Hover or Focus

Where keyboard focus or mouse hover triggers additional content to appear, we will ensure the content will be:

- Dismissible by the user without moving keyboard focus or mouse hover (for example by pressing the ‘escape’ key or closing on click)

9.2.31 Multiple Ways

We will provide multiple ways for users to find the website’s pages by:

- Adding a sitemap page which links to every page on the website; and
- Including a search function on every page (by adding it to the header); and
- Providing a clear and consistent main navigation menu.

9.2.32 Headings and Labels

- We will use descriptive headings and subheadings in content where appropriate (a change in topic or purpose)
- We will use descriptive labels on controls and input fields

9.2.33 Target Size (Minimum)

- We will ensure that the target areas for all pointer inputs are at least 24 by 24 CSS pixels.

9.2.34 Consistent Identification

We will ensure that:

- Any icons used are consistent (for example, ‘Print page’ or Twitter link); and
- Elements with the same function are labelled and named consistently; or
- Elements with the same function have a consistent text alternative.

9.2.35 Visible Controls

- We will ensure that the information needed to identify controls and components is available when the controls are needed. Note: This doesn't mean that controls will be visible all the time.
- Alternatively, we may make controls available through an entry point that is always visible – for example a menu button.
- We may also pass by enabling users to make the information persistently visible. For example, a control at the top of a page could toggle all components to 'visible' status.

9.2.36 Error Suggestion

We will ensure that:

- We identify input errors and suggest corrections where possible.
- When the error is missing a required field, we communicate this to the user with a text suggestion.
- If the error is in the format of the input, the suggestion will show the correct format (for example, 'The date will be in the form DD/MM/YYYY').
- If the error is because the input needed to be from a limited list of values, we will provide these values and explain them.

9.2.37 No Timing

We will ensure there's no time-limited content on the website.

9.2.38 Re-authenticating

When users are asked to re-authenticate their identity, we will ensure the user can continue exactly as before with saved data.

9.2.39 Location

We will use breadcrumbs to help with navigation. We will show the sequence a user is following and where they are in that sequence

We will add a sitemap page to the website so that users have another way of finding what they want. We will add a link to the sitemap somewhere prominent like the header.

9.2.40 Section Headings

We will add a heading for every new thought or topic in the content (for example, a travel article may have headings to indicate the distinct sections on dining, transportation, and lodging).

9.2.41 Target Size

We will ensure that the target areas for all pointer inputs are at least 44 by 44 CSS pixels.

9.2.42 Concurrent Input Mechanisms

We will ensure there are no restrictions on modes of input.

9.3 User Manual

The user manuals will be provided according to different user levels of the system.

