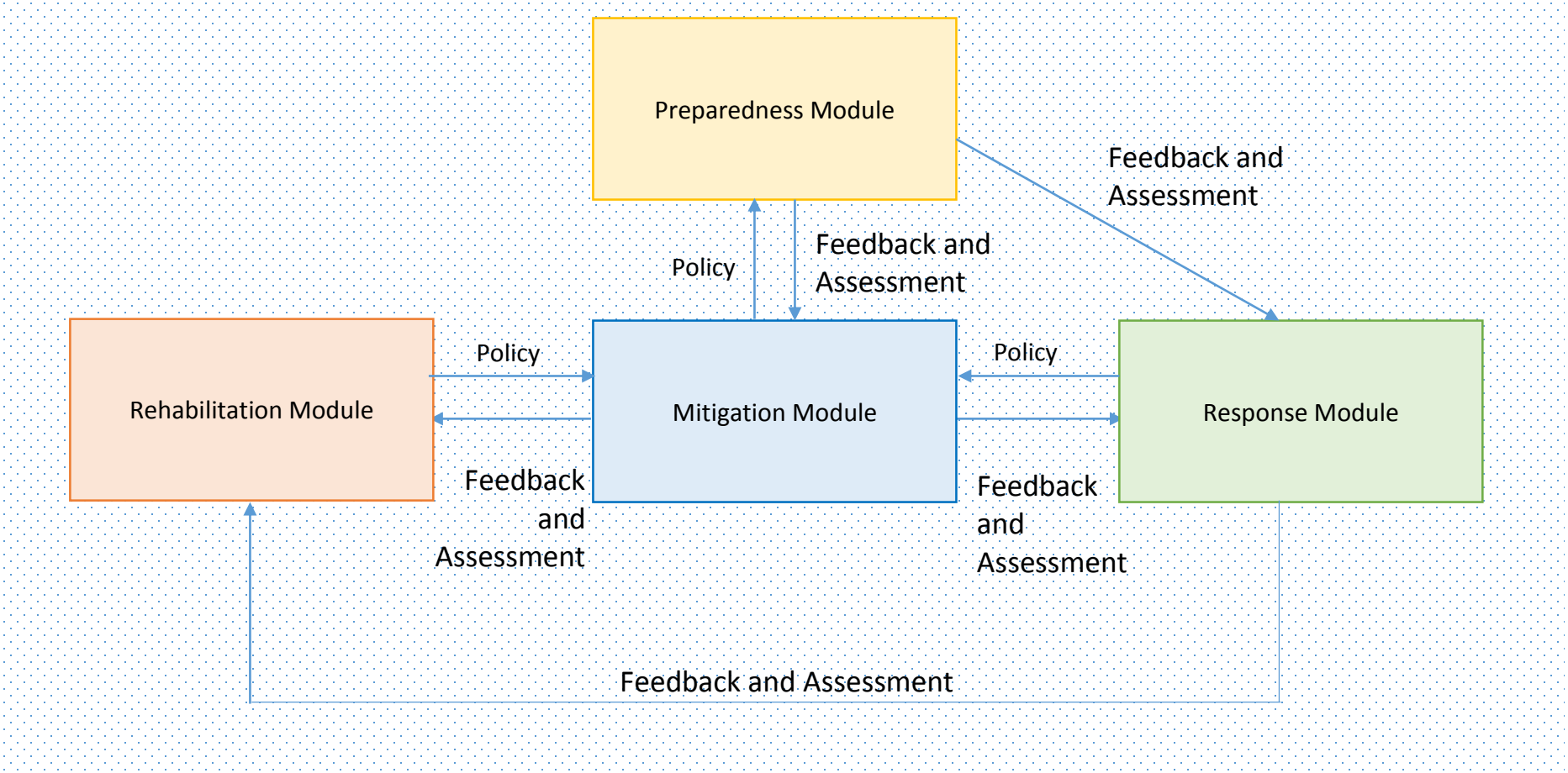
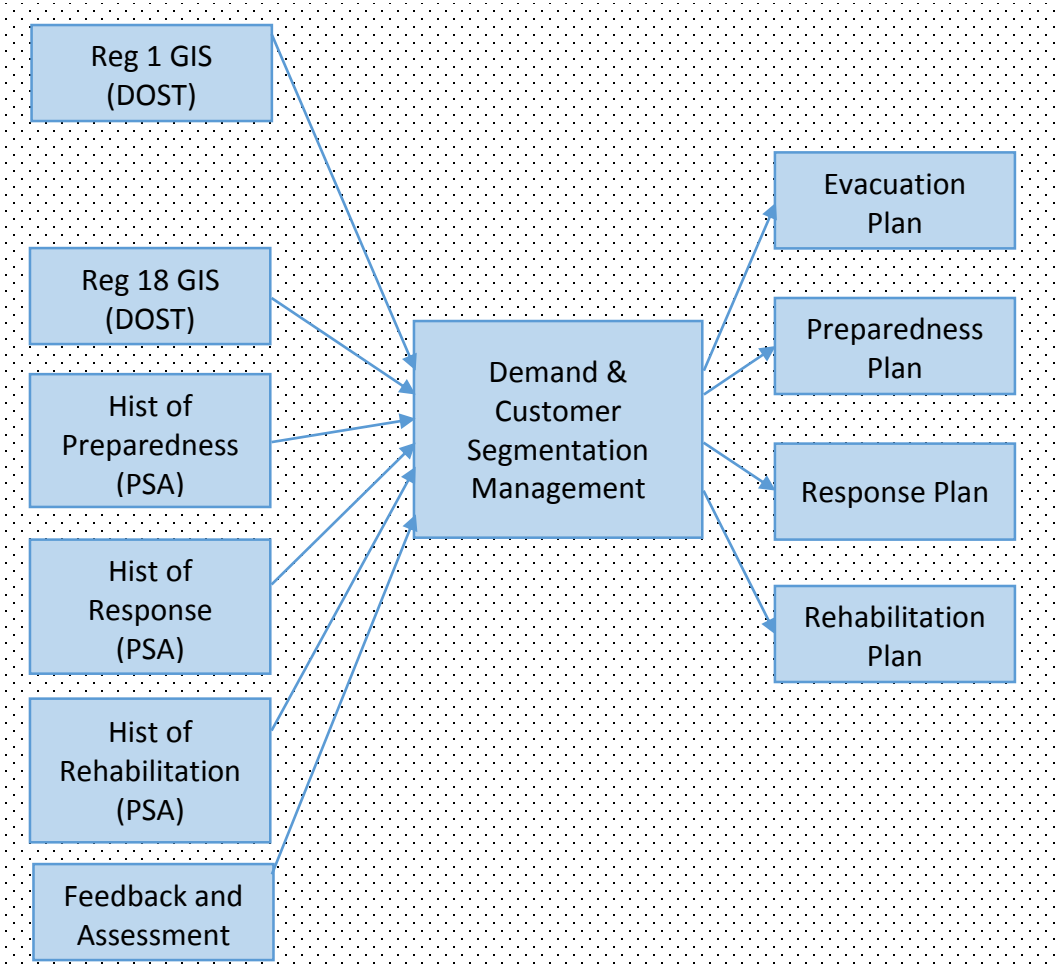
5. Single System for Preparedness, Response, and Rehabilitation (Framework)

This system illustrates the interaction of the thematic area in terms of information. The system that will be created is intended to have interaction between the thematic areas. All data that will be gathered will be placed under the mitigation for better forecast of incidents in the near future. The data to be gathered will have to be complete following a template for easier encoding and retrieval of the information and for generation of meaningful report.



Mitigation Module



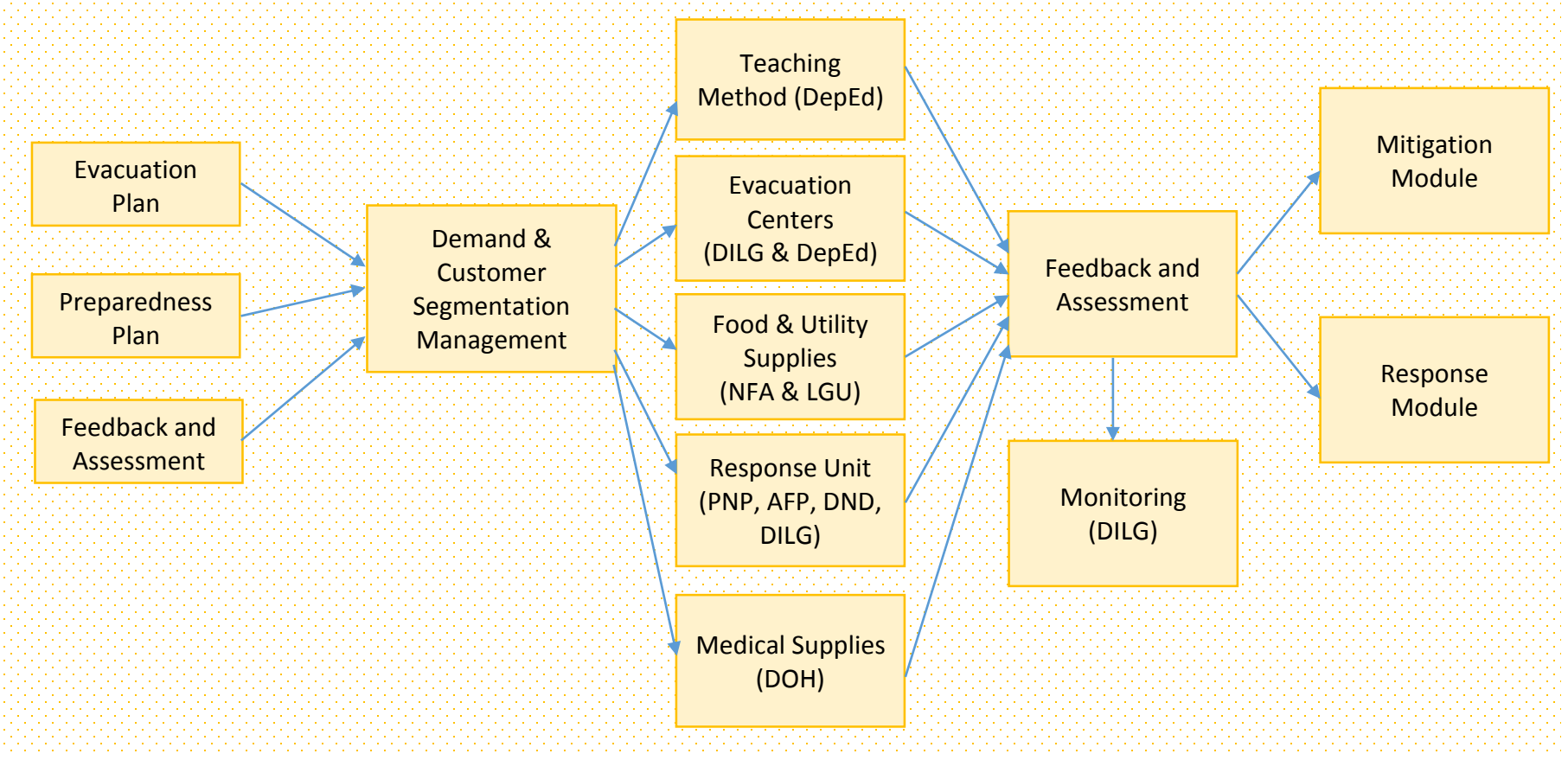
The mitigation module is the research module of the system as it identifies possible opportunities to exploit as they have interpreted the data.

The pre-requirements for this is the encoding of all data from other thematic areas given that they have followed a template to ensure completeness of data before encoding in the database. The input will be coming from the Regional Geographic Information System (GIS) that the DOST will handle, the historical data from the Philippine Statistics Authority (PSA), and the Feedback and Assessments coming from other modules.

New technologies like Analytics will be used for the interpretation and forecasting of the data encoded. Further, as they have interpreted the data through Analytics help, they can see the vulnerables that needs to be eliminated.

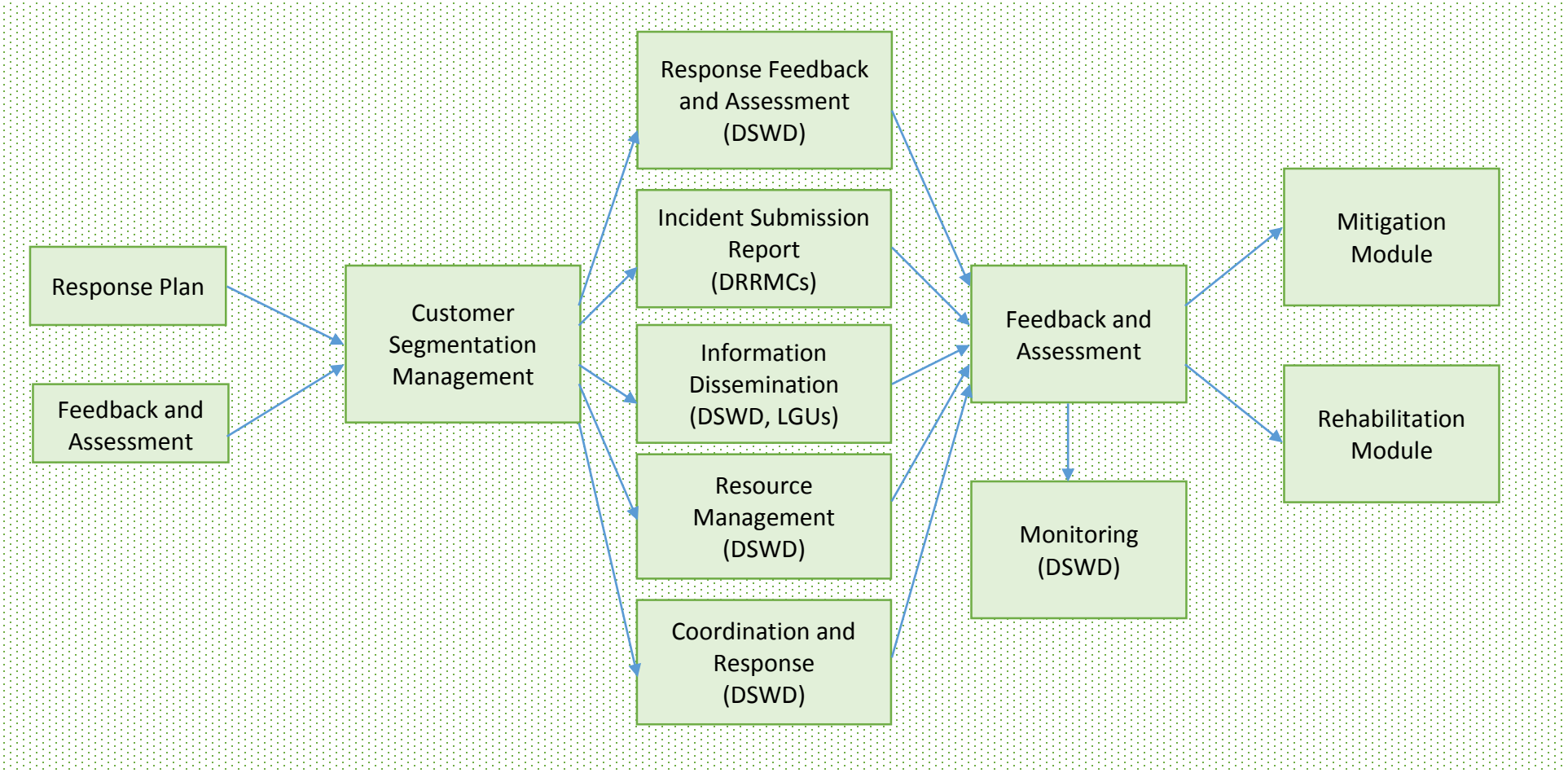
The Geographic Information System will provide the vulnerable areas in their region. In that way, the user of the mitigation module can create a new policy to mitigate the disaster for that area. Also, the system will use the data from PSA to see how the LGUs responded to the calamity, and how vulnerable was the area. It will be like a lessons learned. Lastly is the Feedback and Assessment from the Preparedness Module, Respose Module, and Rehabilitation Module in which they give feedbacks on how they were guided with the policies recommended by the Mitigation Module. In that way, they can improve better in giving policies.

Preparedness Module



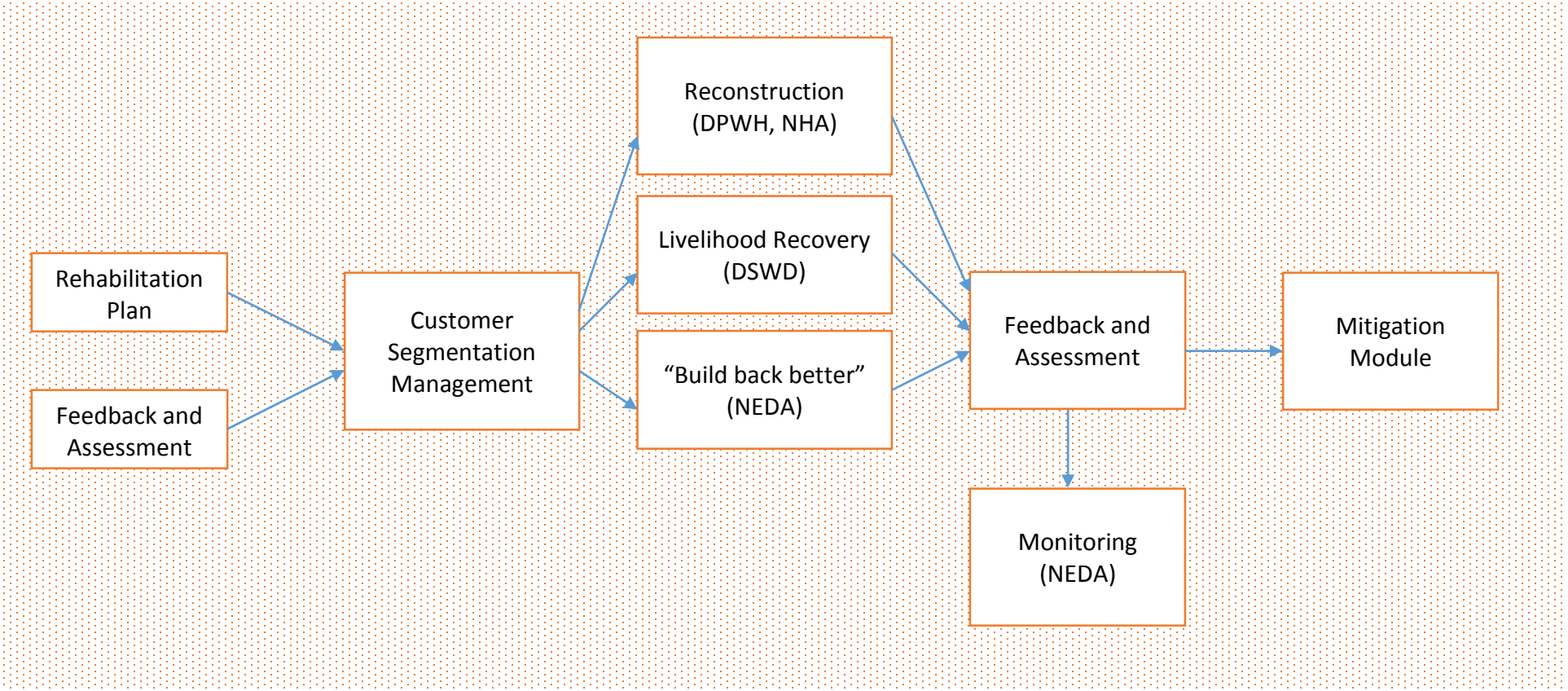
In this module creates steps to prepare the community from devastation. They will use the data from the mitigation module in preparing for disaster. The policy from the mitigation module are Evacuation Policy and Preparedness Policy. This will serve as a guide in improving the preparedness team's services. They will base their decisions through the historical data. As an example, if they see in the historical data that there was no nearby policeman or soldier for a certain vicinity, they will add more to supply the needs for support. The demand management will help them analyze where they can get the needed supply. For the output in the module, this will produce strategies for teaching methods, supplying needed evacuation centers, food and utilities, and response unit. They will then provide feedbacks on how they were helped by the policy given by mitigation. This system serves as an analytic tool to better forecast what is needed before, during, and after the disaster.

Response Module



The response module will not only be used during the disaster but also before the disaster. They can see what went wrong and what went right during the past disaster. In that way, they can strategize better for the disasters. Also, in this system, they can see live feeds of what's happening in a certain area. They responders will transmit data to the main module to declare what they needed. In this way, the lead agency can decide on the workforce to be deployed. Just like in the other system, the feedbacks will be send to mitigation module for them to correct what they have put in the policy.

Rehabilitation Module



The rehabilitation in the reconstruction phase. Knowing what area are heavily devastated, they can add more equipment to deploy. Also, when they see that the cause of the devastation is the poor infrastructure planning, they can build back better the area. With this, they can move the establishments in the prone area to a more secured location. If relocation is not an option, they can put seawalls to minimize the impact of storm surge.