1. Introduction

With kind support from RSPN, Thimphu JNP Waste Disposal Club could be revived from the beginning of this summer semester 2009. Upon receiving confirmation from the RSPN on the financial support for initial establishment fund of Nu. **29500.00 (twenty nine thousand five hundred)**, a group of Faculty members started forming the club consisting of ten volunteer trainees (all male) and three faculty members.

2. An Overview of Our Objectives and Strategy

The following were the goals and objectives that we intended to achieve from the disposal club that was initiated by few faculty members. Also, these were what we proposed in our proposal that we submitted to RSPN.

- 1. Keep Jigme Namgyel Polytechnic campus clean,
- 2. Help conserve environment in a small way by not burning in open air,
- 3. Help recycle resources by selling recyclable materials to local scrap dealers,
- 4. Inculcate awareness in staff and students on proper garbage disposal,
- 5. Spread proper garbage disposal methods to outside communities.

For the operation and sustenance of the club, the following steps were proposed to be used as a strategy.

- Educate the staff and students on proper segregation of wastes in the following categories:
 - Recyclable materials
 - Toxic materials
 - Incombustible materials
 - Combustible materials
- 2. Form a group of volunteers.
- 3. Specify and inform collection routine to staff and students in the institute.
- 4. The volunteers will carry out door to door collection from the hostels, kitchen & dining, staff quarters.
- 5. Further segregation and storage in a proper place by the volunteers.
- 6. At the end of every week, all the recyclable materials will be sent to Samdrup Jongkhar or Daranga town in the institute vehicle for sale.
- 7. The revenue generated from the sale of recyclable material shall be deposited and maintained in the Waste Disposal Fund (WDF) by a committee.
- 8. Operation cost for the purchase of containers like gunny bags for collection and packaging for sale, light refreshments for motivation of volunteers, minor repair and maintenance of tools and equipment (if we get any), an so on will be met from the Waste Disposal Fund (WDF).
- 9. If the WDF is sufficient, it will be used for the purchase and installation of waste bins for each category of waste at strategic places in the institute.
- 10. If the WDF grow well beyond the sustenance cost it will be used for the student welfare.

In order to motivate people to come forward to carry out such a free social service, we proposed RSPN for a financial support to purchase some outfits, tools and equipment.

3. Our Achievements

Right after the receipt of RSPN's confirmation on their support but before receiving the fund, we started forming the club with ten volunteer trainees and three faculty members.

The ten trainee volunteers in their outfits purchased from the RSPN fund can seen below.



Picture 1: the ten trainee volunteers in their outfits purchased from the RSPN fund

As directed by RSPN, we had printed "Keep Bhutan Clean, Sponsored by RSPN" message at the back of their dresses as shown below.



Picture 2: Awareness message on "Keep Bhutan Clean"

Right after the formation of club, all these members actually started informing the staff and trainees about the formation of the club, it aims and objective and also on how each of them could help the disposal club by segregating wastes into four categories.

As desired by the club, the staff and trainees have started cooperating with the club in segregating the wastes at the source. Every Saturday, the volunteers go around the trainees' residential complexes and staff quarters collecting the wastes being segregated into four categories. The three staff also go around with the trainee volunteers to get a feel of their problems and to remind the staff and their children not litter the wastes around but to keep them segregated.

As proposed, we have made a link with a local dealer at Dewathang (instead of Samdrup Jongkhar) for the sale of recyclable wastes. As the amount of weekly waste collection is low and require some time for further sorting and packaging, we are not able to sell our wastes weekly as proposed in the proposal. Also, as we have to go by the convenience of the local dealer and availability of institute vehicle we

could, so far, sell the recyclable wastes only once. The following table provides the details of wastes collected and sold as of 28.4.2009.

Sl. No.	Category of Waste	Weight(Kg)	Remarks
1	Plastic bags	8.51	
2	Orange Juice/edible oil bottles, sweet containers, etc	34.81	
3	Litchi juice bottles	7.74	saleable
5	Metals + Tins	42.69	
6	Shakala (a local term) - shampoo container - e waste - battery - others	22.18	
7	Plastics(Coated with Aluminum foil)	7.75	not saleable
8	Others(Shoes, slipper, cloths pieces)	13.00	not saleable
		136.68	Total weight

SI. No.	Category of Waste	Pieces	Remarks
1	Beer	242.00	Saleable

As reflected in the table, there are items like plastics with silver/aluminum foil, shoes, slippers, cloth pieces and others that are not accepted for purchase by our dealer. We tried but failed to find people across the boarder who would take them (even if it is for free) for recycling/reuse. However, as our institute keeps going to Samdrup Jongkhar, we have thought of tying up with Samdrup Municipal for disposal of these items along with theirs.

Following are some of the pictures that show the volunteers in action and the three pull-carts that were purchased from the RSPN fund.



Picture 3: Mr. Samten Lhendup, Lecturer in Mechanical Engineering, founder of club pulling the cart.



Picture 4: Volunteers sorting out wastes and packaging.



Picture 5: Club members loading the recyclable wastes for transportation to Dewathang Market.



Picture 6: Volunteers emptying waste bins installed by the institute around the campus.



Picture 7: Volunteers picking wastes that are thrown in the open area



Picture 8: Some of the collections ready for disposal.

From whatever we have done and are doing, we feel that we are fulfilling all the objectives set out in our proposal for the Waste Disposal Club except for the last one that is, spread of proper garbage disposal methods to outside communities. As of now we have not carried our success story to the outside community since we are still at infancy stage to say that we are doing great. Because of this and also to experiment further in our own area for some more time and gain more experience, we have postponed the idea of taking our initiatives to the greater society.

Although, as of now we feel that our objectives are met, we have started realizing that lot of improvements needs to be done to make waste disposal more efficient and effective. For example, there is a need for having proper waste bins for each category of waste for the residents to store at strategic locations so that the residents need not wait for the volunteers to come door to door. This can also eliminate the problem of residents from having to find space to keep these sorted wastes in their houses/rooms till Saturday or any other collection time.