

To

The Chairman,

Sulabh International Social Service Organization

RZ-83, Sulabh Gram, Mahavir Enclave Palam-Dabri Road,

New Delhi- 110045.

Sub:- Project on holding Small Group Discussion (SGDs) with Karma Festival celebrations on the issue of Sanitation, Health & Hygiene in Punjabi Bagh, Delhi to be held on 8th to 10th September 2012.

Respected Sir,

(a) Introduction:

National Adivasi Development Sewa Sanstha (NADS) -90A, Lal quarter, West Punjabi Bagh, New Delhi-110026 is a premier N.G.O. in service to the health and hygiene of Tribal People. The Sanstha has been in continuance service since last eight years for the awareness to sanitation and welfare to the tribal people migrated from the state of Andra Pradesh, Bihar, Chhattisgarh, Jharkhand, Karnataka, M.P, Maharashtra, Rajasthan, Orissa, West Bengal, Assam. Their health is very critical mostly women are anemic disordered due to lack of education, awareness of health and hygiene. Most of these people is illiterate, and after migration into Delhi they live in slums in Delhi near Railway Lines, Under Bridges, Jhuggis etc.

The Society (NADS) is continuously struggling for teaching above said tribal people for awareness of sanitation, awareness of benefits of health and hygiene. Methodologies to resolve the the problems caused by the bad sanitation habits.

The Society is going to organize Small Group Discussions (SGDs) with celebrating Karma Festivals on the issue of Sanitation and Health & Hygiene on 08th -10th September, 2012.

(b) Objectives

- To aware and train the Tribal Girls/Women living in Delhi after being migrated to Delhi from the various states of the India.
- To change their mindsets regarding the sanitation, health and hygiene and point out its advantages.
- To celebrate the Karma festivals a cultural festival of tribal people to attract them in large strength.
- To give awareness and overview about the benefits of good sanitation, health and hygiene.

- To facilitate the special educators and experts/Professionals to provide better information services to the women, especially tribal women.
- To aware and train up to 10,000 people who are illiterate about the sanitation, health & hygiene and its long term advantages.
- To aware them living with scientifically and medically and techniques to manage/disposal of human excreta in order to multi-level advantages.

(c) A study and advantages of good sanitation some important findings and disposal techniques of human excreta:

- Human Feces and Urine Contains nutrients: Nitrogen (N) – 12 g Phosphorous (P) – 2 g Potassium (K) – 3 g Organic Matter – 90 g Most organic matter in feces Most N and P (70-80 %) in urine. K equally distributed between urine and feces.
- Nutrient excretion by humans is directly linked to diet We excrete the same amount of nutrients that we take up in our diet (except for children who retain a small proportion for growth of bones) The amount of excreted nutrients by one person is the same amount that is needed as fertiliser to grow the food for that person N N P P Diet Excreta
- Human Feces and Urine "Dry" Systems Human ("sanitary") waste in settings where water use is limited by preference or lack of indoor plumbing for water supply and liquid waste (sewage) disposal Pre-treatment prior to use Nutrients and organic matter are: detrimental in surface water, eutrophication causes anoxia and fish kills Beneficial on land as fertilizer, soil conditioner, land stabilizer Potential for excreta misuse and environmental pollution is great if there is no proper attention to management plans and human behavior considerations
- Public Health importance: The health hazards of improper excreta disposal are: Soil Pollution. Water Pollution. Contamination of foods. Propagation of flies. Diseases resulting from contamination are : Typhoid and paratyphoid fever. Diarrhoea and dysentery. cholera. Hook worm and other intestinal parasitic diseases. Viral hepatitis. Poliomyelitis and other viral infections.
- Approved types of toilet facilities: LEVEL I : Non-water carriage toilet, ex. Pit latrine, VIP and Bored Hole latrine. Toilet facilities requiring small amounts of water to wash into the receiving space, ex. Water sealed latrine LEVEL II: On-site toilet of water carriage type with water- sealed (flush type) with septic tank LEVEL III: Water carriage type connected to sewerage system to treatment plant
- Excreta Disposal Criteria for acceptable excreta disposal facilities Sanitary Simple, cheap and easy to construct with local materials Easy to maintain With adequate protection against elements and provides desirable privacy Acceptable to the users

- Methods of Excreta Disposal Cat-hole Latrine Straddle Trench Latrine Sanitary Pit privy – Level 1 - Pit type - VIP 4. Bored-hole Latrine – Level 1 5. Water-sealed Latrine – Level 1 6. Chemical Toilet 7. Pail System 8. Overhung Latrine
- Cat-hole latrine Simplest method A small hole is excavated using any suitable implement Not used as regular excreta disposal facility
- Straddle Trench Latrine A trench is dug to a depth of about 2 feet. An improvised shovel is used to cover the excrement after each defecation. When the trench is filled to within 6 inches from the top, the content is sprayed with oil and covered with soil and compacted.
- Pit Privy A pit is dug to a depth of 4 – 6 feet. A floor cover at the top of the pit is provided together with a riser, seat and self-closing lid all made in as fly tight as possible. A vent is provided with fly screen
- Contents of Pit Privy People use old newspapers for anal cleansing
- Ventilated Improved Pit
- Bored-hole Latrine Deep holes bored into the earth with mechanical or manual earth-boring equipment. The hole is provided at the top with a cover. Foot rest are sometimes provided to facilitate squatting .
- Water-sealed Latrine A pit privy modified to include a bowl made of durable material, with a P or S shaped trap which forms a water seal when water is added. Water is used for cleaning and about 2-3 liters of water is used for flushing the content.
- Chemical Toilet Utilizes the principle of liquefaction of organic matter using caustic soda (sodium hydroxide) to liquefy the fecal material and destroy bacteria. After several months of operation, the liquefied matter together with the spent chemicals are removed and drained.
- Pail System Also known as Box and Can Privy or Bucket Latrine Regular removal and disposal of waste in a sanitary manner. Burial of contents at least 12 inches from the ground, to prevent access to flies or escape of adult flies.
- Overhung Latrine Consists of a superstructure provided with latrine floor on top of wooden piles above the water. The disposal of human wastes consists essentially of defecation into the water. Unsanitary
- Sanitary Sewage Liquid or “Wet” Systems, Septic Tank Typical for human waste in settings where there is piped, household water supply and sanitary waste disposal using water. About 99.9% water and 0.10% solids Typically consists of washing water, feces, urine, laundry waste and other material which goes down drains and toilets from households and industry.

- Septic Tank System Wet system with collection into a subsurface tank, separation (settling) and anaerobic digestion of solids and discharge of liquid effluent via perforated pipes into subsurface soil. Widely used in developed and developing countries. Often fail (eventually) due to poor site conditions, poor installation and obstruction.
- Problems encountered using communal toilets or public toilets: No dedicated service providers Due to lack of running water and a situation of poor water availability people come only with a mug of water for anal cleansing but not flushing. No lighting facilities lead to poor usage by women. When septic tank is filled up it is not emptied quickly and hence usage goes down. These situations lead to open defecation.
- Grey water Other waste water from human activity Not directly from human feces and urine Waste water from washing, bathing, etc Treatment and reuse for irrigation and ground water recharge Grey water contains some P (from detergents) but little N
- Characteristics of Human Wastes of no major (or less) hygienic concern/risk volumetrically the largest portion of waste water contains almost no (or less) nutrients (simpler treatment) may contain spent washing powders etc. 3. grey water less hygienically critical (less risk) contains the largest proportion of nutrients available to plants may contain hormones or medical residues 2. urine hygienically critical (high risk) consists of organics, nutrients and trace elements improves soil quality and increase its water retention capacity 1. feces characteristic
- Ecological Sanitation – “Ecosan” Treats human excreta as a beneficial resource Excreta are confined and processed on site until they are free of pathogenic (disease-causing) organisms Sanitized excreta are then recycled by using them for agricultural purposes. Key features of ecosan: Prevent pollution and disease caused by human excreta Manage human excreta as a resource rather than as a waste product Recover and recycle water and nutrients
- Guiding principle for fertilisation with ecosan products “ We are fertilising the soil , not the plant!” Ecosan products not to be used on plants directly but on the soil in which the plants are grown Urine is applied in a furrow about 10 cm. away from the plants
- Role of feces as an organic fertiliser High concentrations of P and K Organic matter is beneficial because: Improves soil structure Increases the water-holding capacity and ion-buffering capacity of the soil Supports soil microorganisms by serving as an energy source Avoid feces as fertiliser for growing vegetables which are eaten raw
- Visual evidence for agricultural benefits of ecosan products urine faeces & urine none compost improved soil untreated soil after one week without water Maize (corn)
- Hormones and pharmaceutical residues in ecosan products (mainly urine) are not really a problem for reuse because... Vegetation and soil microbes can degrade hormones and pharmaceuticals It is far better to recycle urine and faeces (with their hormones and

pharmaceuticals) to arable land than to flush them into recipient waters Urine of hospitals is not recommended to be used in agriculture.

- What if people are still really worried about eating food fertilised with human excreta? You can use human excreta also on other types of crops, which are not eaten by humans, e.g. Flowers Potted plants Fibre-producing plants (e.g. hemp) Oil-producing plants, e.g. olive trees Trees
- Sewage Treatment Systems Subject sewage to physical, biological and chemical treatment processes Separate settleable solids from remaining liquid Biologically degrade and stabilize organic matter Biologically reduce pathogens Physically and chemically disinfect pathogens Oxidize and stabilize non-settleable organic matter and nitrogen in the remaining liquid Or denitrify (biologically convert nitrogen to N₂ gas)
- Sewage Treatment Physical and biological treatment
- Agricultural Use direct injection of liquid fertiliser dried faeces - „soil amelioration“ irrigation urban agriculture composting with organic waste urban agriculture
- Aquaculture Waste water treatment by aquatic plants and fish with nutrient recycling by human consumption Offers high quality protein at low cost Predominantly in Asian countries Fish production of 1-6 tons/ year achieved tilapia carp
- Advanced (Tertiary) Sewage Treatment Uses physical and chemical processes Removes nitrate and phosphate Expensive Not widely used
- Refuse Disposal General term applied to solid and semi-solid waste materials other than human excreta.
- Solid Wastes include – Garbage (food wastes) Rubbish (paper, plastics, wood, metal, throw away containers, glass). Demolition products (bricks, masonry, pipes). Sewage treatment residue (sludge and solids from the coarse screening of domestic sewage). Dead animals, manure, other discarded materials.
- Paper: 50%
- Sources of solid wastes : Street refuse : collected by street cleaning service or scavenging, such as leaves, straw, paper, animal droppings. Market refuse: contains putrid vegetables and animal matter. Stable and cowshed refuse. Industrial refuse: contains wastes ranging from completely inert materials to highly toxic and explosive compounds. Domestic refuse: contains ash, rubbish and garbage.
- Solid waste if accumulated anywhere is a health hazard because : It decomposes and favors fly breeding. It attracts rodents and vermin. Possibility of water and soil pollution. Unsightly appearance and bad odors. Solid waste accumulation increases chances of vector borne diseases.

- Storage of solid waste:
- Home Refuse Disposal Methods Composting Burning Feeding to animals
- Composting Method of combined disposal of refuse and night soil. It is a process of nature where organic matter breaks down under bacterial action resulting in formation of relatively stable humus.
- Composting The principal by product when refuse and night soil is mixed are CO₂, water and heat. The heat produced is 60°C or higher over a period of several days which destroys eggs and larvae of flies, weed seeds and pathogenic agents. Compost is a very good soil builder and has major plant nutrients.
- Burning Involves open burning in the ground or drum Prohibited because burning household waste release toxic substance known as dioxins
- Feeding to animals Left-over foods can be made use by feeding to pigs, chicken, other poultry and livestock.
- Collection of community solid wastes: House to house collection is the best method then dispose through the following principal methods: Dumping Controlled Tipping or Sanitary Land Fill Incineration
- Dumping : Easy method of disposal of dry solid waste. Land reclamation is often done by this method. Refuse decreases considerably in volume due to bacterial action and is gradually converted to humus. Drawbacks of open dumping are: Refuse is exposed to flies and rodents. Source of foul smell and unsightly appearance. Loose refuse is dispersed by the action of wind. Drainage from dumps contributes to pollution of surface and ground water.
- Controlled Tipping: Most satisfactory method where suitable land is available. Solid waste is placed in a trench, compacted and covered with earth at the end of the working day. Require impermeable barriers to stop escape of leaches: can cause problem by overflow Gases produced by decomposing garbage needs venting
- Controlled tipping is of two types: Trench method: Long trench 2 – 3 m deep and 4 – 12 m wide is dug. Refuse is compacted and covered with excavated earth. Area method: Used for filling land depressions, unused quarries and clay pits.
- Why controlled tipping is a good method? Chemical, bacteriological and physical changes occur in buried refuse. Temp. rises to over 60 degrees within 7 days and kills all the pathogens and helps in decomposition. Cools down in 2 – 3 weeks and within 4 - months complete decomposition of organic matter takes place.
- Incineration Adv: Refuse is disposed off hygienically Preferred method for hospital refuse - Solves space problem but Disadv: Produces toxic gases Expensive

Sanitation, Hygiene Promotion and Health:

- In every country, advocates for sanitation and hygiene promotion now need to find locally-generated information to make the case for more and better investments. Often, there is a need to show policy-makers what sanitation and hygiene promotion really can achieve. In many rural areas, a good way of doing this for example, is to develop “latrine acquisition curves” – by asking house-holds when they first had a latrine and started using it. From this data it is possible to plot a curve showing the cumulative % of households in any given community who use a latrine over time. Similar investigations can provide information about use of a wider range of sanitation interventions, the use of soap, beliefs about hygiene and soon. Such exercises generate important information about how and why people adopt (or fail to adopt) sanitary behaviours (in this case using a latrine). Even more importantly they get officials into the habit of visiting house holds and asking questions about hygiene. This is vitally important because most people are reluctant to talk about sanitation and hygiene practices, and often remain unaware of what is really happening on the ground. Before reaching this stage, sanitation “champions” may need to use more generalized data about the positive impacts of sanitation and hygiene behaviours, in order to stimulate interest in the subject. Some of the startling facts about sanitation and hygiene promotion are presented below. Additional sources of information are in in

(d) Tentative budgetary requirements of the proposed programme:

No.	Description of Inputs	Amount (Rs.)
1.	Rented Ground @Rs.15000/- Per Day for 3 Days	45,000/-
2.	Honorarium to Project Director Rs. (Lump sum)	15,000/-
3.	Honorarium to Coordinator @ Rs. (Lump sum)	10,000/-
4.	Local Conveyance (Taxi) @ Rs. (Lump sum)	5,000/-
5.	Honorarium to Research Officer Rs. (Lump sum)	9,000/-
6.	Honorarium to Field Investigator Rs. (Lump sum)	7,000/-
7.	Photographs & Video Recording	16,500/-
8.	Refreshments	22,000/-
9.	Data Processing (Lump sum)	10,000/-
10.	Contingency	8,000/-
11.	Tent, Samiana & Sound System	110,000/-
12.	Tribal Musical Programme for 3 days including travelling and food costs	120,000/-

13. Banners ,Hordings & Advertisement 36,000/-

14. Misc. Exps. 10,000/-

15. Security & CCTV Exps. 20,000/-

(a) Total budget Rs. 443,500/-

(b) 50% is to be taken from individual donations 221,750/-

C=(a)-(b) Remaining 50% is required to be assisted by your esteemed organization 221,750/-

(d) Beneficiaries

Around 10000 tribal people/women living in unhygienic and bad-sanitation situation would be benefited so as to resolve the problem to some extent forever by these people.

(e) Legal Status and Registration Details of the NADS

- Name: National Adivasi Development Sewa Sanstha (NADS)

- Former Name: Sewa Bharti Sanstha, Punjabi Bagh (Regd.)

- Registered under Society Registration Act, 1860 (Reg. No. S-49860/04)

- Registered under section 12A of Income Tax Act, 1961 (Vide No. DIT(E)12A/2005-06/S.4414/05/1388

- Approval of section 80G of Income Tax Act, 1961 (Vide U/s 80G No. DEL-SE2140512012010/2777

- PAN of the Society: AAFTS2262P

-Bank A/c Details:- State Bank of Mysore, A/c # 64005803280, Branch - Punjabi Bagh, Code: CA100/103/SBMY0040538, MICR Code 110006009

In view of the above, and our visits to your esteemed organization your good self is hereby requested to financially support/Sponsor the abovesaid project so that the same can be organized as contemplated in order to achieve the objectives of the society for health, Sanitation, hygiene of the tribal people and preserve the health, water, forests.

In service of the nation.

For National Adivasi Development Sewa Sanstha,

Dhananjay Lohara

General Secretary

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