Escalating Chronic Kidney Disease in North Central Province: A Plan of Action to Eradicate it From Sri Lanka

The following document is a proposed plan of action by the *Foundation, aimed at controlling widespread water and soil pollution in the North Central Province (NCP) of Sri Lanka and the resulting epidemic of Chronic Kidney Disease (CKD), which is responsible for killing thousands of people every year. The number of deaths and costs for managing this disease are markedly escalating. It details six projects (projects 1, 2, 3 & 6 are prioritized) the Foundation sees as crucial steps to reversing CKD epidemic.

**Proposed objectives** (details in page 4; to navigate flyer, please use the index on the right side):

- **Sub-Project 1:** Educating health professionals
- **Sub-Project 2:** Provide and educate, effective use of water quality measurement devices
- **Sub-Project 3:** Educational campaign—printing of posters to increase awareness
- **Sub-Project 4:** Poverty alleviation, job creation, disease prevention and improve nutrition
- **Sub-Project 5:** Develop and fund a network of relevant CKD-mfo research for local scientists
- **Sub-Project 6:** Purchase, install, and maintain reverse osmosis water purification plants
**PHEPRO Foundation: A Unified Organization to Overcome the Chronic Kidney Diseases of Multi Factorial Origin in Sri Lanka**

*The Preventive Health, Environmental Protection, and Research Organization (PHEPRO.org) consists of charitable organizations interested in eradicating CKD-mfo in Sri Lanka. Until the PHEPRO.org is fully functional, WETF and HBP will manage accounts and the projects. These two organizations will take the leadership with the Dhamavijaya Foundation (DVF) and others, implementing this important humanitarian program. In addition to quarterly account reports by CPA, accounts will be audited in USA and in Sri Lanka by reputed audit-firms.

Your financial support is critical in helping us to carry out the six projects described in page 4: to provide education, clean water and relief to thousands who either have or are at risk of contracting this deadly disease, CKD of multi-factorial origin, particularly affecting the North Central Province.

**Information for potential donors for donating funds to this worthwhile cause**

**Please Donate to Support the Mission!**

**The two foundations accepting donations to the CKD project**

<table>
<thead>
<tr>
<th>HBP Foundation, North America (worldwide):</th>
<th>WETF-Foundation (Donations in Sri Lanka):</th>
</tr>
</thead>
</table>
| • Charitable registration #: EIN: 27-1836636  
  See the button below for donation via PayPal | • Charitable status pending  
  PayPal donation to Sri Lanka is not available |
| • US Bank, St. Cloud Downtown Office  
  1015 St. Germain St, St Cloud, MN 56301, U.S.A.  
  Checking A/C #: 1-047-5774-9338 | • Bank of Ceylon, Lake View Branch, No 142  
  Sir James Peries Mawatha, Colombo 02, Sri Lanka |
| • Routing number: 091000022  
  USBK US44I1MT [HBP is a registered charity in USA] | • Bank A/C #: 0000306141  
  Swift Address – BCEYLKLX |
| • Checks may be payable to “HBP,” CKD-Project and mailed to: | • Tel: 0094-112314207; Fax: 0094-112303143 |
| • Professor Susantha Herath  
  2716, Edward Drive, St. Cloud, MN 56301  
  Tel: U.S.A.–1-320-308-2189  
  Email: sherath@stcloudstate.edu | • Checks may be payable to “WETF,” CKD Project, and mailed to: Mr. Athula Jayalal  
  No.105, Hunupitiya Lake Road, Colombo 02  
  Tel: 0094-115-700-400; Fax: 0094-112-472-535  
  Email: athula@fascination.lk |

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HBP is a Registered Charity in USA

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A Plan to Action to Overcome Chronic Kidney Disease in Sri Lanka

Introduction:
Approximately 5,000 farmers in North Central Province (NCP) in Sri Lanka are dying each year of Kidney failure mainly due to CKD, but many are undiagnosed. Major effort is needed to reduce these deaths by education, training, and monitoring water quality and supply of purified clean water to them.

Most of those affected regions in the country are in agricultural areas, in which more than 90% of the population lives in rural communities with little access to amenities such as safe potable water, good sanitation and modern medical facilities. **A major intervention is needed immediately to prevent premature deaths and to stop the spread of this disease.**

Each day, approximately 13 middle-aged male farmers are dying from Chronic Kidney Diseases (CKD) in the NCP. Consequently, in some families there are no surviving adult men. Much is needed to be done urgently especially in prevention; a daunting task for the authorities.

The incidences of deaths caused by this Chronic Kidney Disease of multi-factorial origin (CKD-mfo), previously known as CKDu, CKDuo, and CKDue is likely to increase with time. The exact causes of CKD-mfo are unknown, but more than 100,000 people are currently affected (between 10% and 15% of people in certain villages), with an approximate 5% annual death rate among the affected. In addition, it is estimated that approximately 2.8 million people are at the risk of contracting this deadly disease, and based on the current estimates based on the incidence, about one-million will be affected with time. Figure 1 provides information on the most-affected areas and the trend of its spread both within and outside the NCP.

**Consequence of not having clean water to Rajarata/NCP:**

Projection suggest that unless intervened now and if the CKD related premature deaths of adult males continue at the current rate, only 10% of the adult male population will survive in the NCP by the year 2045 compared with 2013. This will be disastrous not only for those families, but it also would markedly change the demographics, and adversely affect the country’s rice sufficiency and the economy. **Moreover, current statistics show that the deaths from the CKD-mfo have already outnumbered the human losses attributed to the 2004—Tsunami.** Delays in urgent and effective preventive strategic solutions to reduce Kidney failure due to water pollution would cause irreparable losses to our nation.

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Proposed Plan of Action – [line item costs are provided in the page 5]:

The provision of clean water [Project 4] although essential, by itself is not sufficient to eradicate CKD-mfo from the country. It is critical to provide the right information to healthcare professionals regarding ways to eradicate the disease [Project 1]; for the public, efficient and cost-effective way of identifying/ quantifying, the polluted water sources [Project 2]; and educating environmental pollution prevention [Project 3]. “Preventive Health, Environmental Protection, and Research Organization (PHEPRO.org)” will conduct six projects with other organizations to help overcome the chronic kidney disease (CKD-mfo) in Sri Lanka.

Project I – Educating Health Professionals [Budget for printing 34,000 copies = US $33,282]:
Educating and empower health professionals and to bring them on the same page is an essential part of this project; without which the project is unlikely to be successful. “White Paper on CKD” is a comprehensive book on CKD-mfo, which include everything one needs to fight and eradicate this disease—steps that need to be taken by the community and government. Copies of this will be distributed to all physicians and hospital administrators [Step 1], to facilitate professionals to fight the disease on a “unified platform” with unified message. This book will be translated to Sinhela and Tamil, and given to all auxiliary healthcare workers. We will also involve active participation of the news media for wider education of the public and to disseminate right messages on prevention of pollution, taking care of themselves and minimizing the incidence of non-communicable diseases.

Step 1: We will print and distribute 8,000 copies of the book to all medical officers through the Government Medical Officers’ Association of Sri Lanka (GMOA); the distribution and associated cost will be borne by this Association. [Total cost of printing and distributing 8,000 copies in English = $12,062].

Step 2: Additional 5,000 copies of the book will be printed and distributed among others in the healthcare field such as Health Administrators, Public Health Inspectors, and so forth. This will cost $6,028. We will also distribute the Sinhela and/or English versions of the book among politicians, senior nurses, principals and teachers of schools, clergy of all religious denominations, and the staffs of relevant departments of the Government of Sri Lanka. Total number of books in English, 12,000 copies = $18,090; [i.e., $12,062 + $6,028]. Printing and distributing 22,000 black and white copies of the book in Sinhela: US $15,192.

Project II – Provide Water Quality Measurement Devices [Budget: US $22,000]:
To purchase 500 units of Total Dissolve Solid (TDS) water-quality measurement electronic device from a reputed company in the U.S.A., and distribute them to the 450 most affected villages, and 50 units to Foundation volunteers for water testing during their fieldwork, enabling them and the trained-officials to do water testing locally (please see page 5, attached line item budget). Currently, the National Water Supply and Drainage Board (NWSDB) charges approximately Rs. 2,000 per water sample for testing (i.e., US $16 per sample) and it takes about 3-weeks to get water quality results. By using this “water quality measurement device”, the cost of water testing will be marginal, and the results of water quality and safety will be available immediately to villagers.

Project III–Educational Campaign, Printing 2’x3’ Laminated color Posters [Budget: US $50,000]:
This countrywide educational campaign would minimize environmental pollution and decrease the excessive use and the exposure of farmers to toxic agrochemicals. As we successfully did with previous educational efforts, we will print four different messages, 120,000; 2’x3’ laminated color posters and displays these in schools, temples, and other public places in all CKD-mfo affected areas. We will intensify the awareness campaign involving the mass media in order to get the best results.

Project IV–Poverty alleviation, job creation, disease prevention and improve nutrition [Budget: US $500,000]: Will launch region wide campaign on above areas, as these would further assist preventing CKD.

Project V– Develop & fund, a network of relevant CKD research program for local scientists in SL [US $400,000]

Project VI– To purchase, install and maintain Reverse Osmosis Plants [Budget: US $4.5 million]: This includes installing 450+ Reverse Osmosis (RO) water purification units in all affected villages, including the replacement of membranes, and maintenance of RO units for 5 years. For more info about the mechanics of RO: [http://www.ijetae.com/files/Volume3Issue12/IJETAE_1213_14.pdf]. The assumption is that each of the affected villages has a ready source of water that could supply 5,000 gallons of clean water per day.
**Detailed Budget/Project Cost Estimates—Subjected to Funds Projects will be done in Parallel**

**Project I:** Step 1: Printing cost for 12,000 copies [US $18,090]:
CKD-mfo book, 80 pages in color, Cost of printing: Rs. 175 per book ($1.35/book—"The White Paper"); Costs for 8,000 books, Rs. 1,400,000; 12% VAT and 2% NBT: Rs. 168,000
Total cost for printing 8,000 books = Rs. 1,568,000; [US $1 = ~Rs. 130] = US $12,060

The cost for printing total of 12,000 copies—English version of the book = **US $18,090**

Step 2: The cost for printing all 22,000 copies—Sinhela version of the book [US $15,346]
The cost of Sinhela [to be borne by the WETF in kind] and Tamil translation = 00
Printing 22,000, B&W copies of the book [Rs. 70 X 22,000] = Rs. 1,540,000
12% VAT and 2% NBT = Rs. 185,000
Storage, transportation, and distribution costs = Rs. 270,000
Total cost of printing and distribution of Sinhela book = Rs. 1,995,000
Cost of printing and distribution of Sinhela book—US dollar = **US $15,346**
Total cost for printing English and Sinhela books [approximate dollar values] = **US $33,450**

**Project II:** To purchase, 500 Total Dissolve Solid measurement (TDS devices) [US $22,000]:
There are approximately 450 significantly affected villages in the NCP alone. We will give each village, one hand-held, sealed testing device, on the spot, water testing Total Dissolve Solid (TDS) devices. Its battery life is over 5,000 hours of usage. Therefore, each device will last for over ten-years. We will train a responsible person in each village, such as the Village Headman/ Gramaseveka/ Gramaniladhari, or the Chairperson of the Community-Based Organization (CBOs). Villagers will use these devices to test the suitability of their water supplies that they use for cooking and drinking. In addition, we will purchase 50 devices to measure dissolved metals and fluoride for our team of volunteers at a cost of $1 per unit. US $20.00, per TDS device, 500 cost: **US $10,000**; Shipping and insurance cost to Sri Lanka = **US $500**
At a cost of US $180.00 per metal/flouride measurement device, for 50 devices: **US $9,000**
Cost of distribution of testing device and educating villagers of proper use of the device = **US $2,500**
Total cost of purchase, shipping, distribution, and training in measurements of water = **US $22,000**

**Project III:** Printing & distribution of educational/ publicity material—Sinhala/Tamil [US $50,000]
Printing laminated color posters: 4 different posters, 30,000 x Rs. 52 = Rs. 6,240,000 [US $48,000]
Distribution, transportation, storage, and displaying costs = Rs. 350,000 [US $2,692]
Total estimated cost [approximate dollar values] = Rs. 6,590,000

**Project IV:** Poverty alleviation, job creation, and improve nutrition [Budget: US $500,000, over 5 yrs]:
Project details/estimated line item costs will be in the website. Collaborative efforts with partner foundations.

**Project V:** Develop, nurture and fund a goal-oriented, network of CKD-related collaborative research program among local academics to provide direct relief with preventive outcomes to Rajarata residents. [$400,000, over 5 yrs]:

**Project VI:** Purchasing and installing RO plants [US $4,500,000]
Funds to purchase, shipping, transport, install, and maintenance of high volume, 450+ Reverse Osmosis (RO) plants in all affected villages: giving clean water that they desperately need. We are exploring other cost-effective water purification methods. Costs approximately, $8,000 x 450 RO units = **US $4,500,000**

The total amount required to be raised [approximate dollar values]: **US $5.5 million**

Initial cost [the target] needed to complete sub-projects I, II and III are USD 105,000
Due to the extensive nature of work, we expect 15% overhead for the project [not included above]

Problem is so acute that urgent action is needed
People who are reading this document are immensely more fortunate than thousands of peasants living in remote areas in the North Central Province (NCP). Some of them are struggling hard to find a morsel of food to meet their daily diet, to send their children to school or to clothe themselves adequately. They are so defenseless against disease that more often than not we hear that they expect that some of their children might not survive to care for the elders or even to bury them.

The information in this message is to inspire a humanitarian appeal for affirmative actions’ by Politicians, Government Servants and officers in the fields of Agriculture, Rural Banking, Animal Husbandry, Forestry, Community Development, Cooperative Development, Land Development, Irrigation, Local Government, Public Works, Education, Health, and Water Supply & Drainage Board, and the like. Their positive and synergistic actions will improve the rural conditions of the poor. With the blessings from the government, we depend on the active participation and generosity of Businesspersons, corporate personnel, Engineers, Doctors, Teachers, Lawyers, Journalists, Priests and Monks, voluntary organizations and others making this humanitarian project a success.

The existing poverty, epidemic of CKD-mfo and associated premature deaths, and the disease burden in the NCP are outrageous. The degree of deprivation among the poor and the prospect of further misery for peasants are so appalling due to inaction. Thus, the statistics of such measures to provide relief are almost irrelevant.

In fairness to those who donate voluntarily, that inquiring as where the money goes to is a reasonable question. We take steps to maintain strict transparency when dealing with donations, administrative work relating to the fund, and to channel the donations to the deserving groups. At the same time, we will take such donors’ preferences, interests and opinions seriously. In addition, we will be engaging the services of reputed accounting firms to audit all transactions of the fund.

The poor in these rural communities are economically trapped in poverty and finding it difficult to come out of the cycle of despair. In order to help them, the donors and well-wishers could offer job opportunities and create livelihoods through their power and resources.  

Those who help can simultaneously encourage the poor to engage in rural development work especially in the NCP, which will result in the empowerment of women and children, minimizing poverty and eradication of CKD-mfo.

The Groups mentioned above are relatively well off and share much in common. They are literate: their children attend good schools, and are in urban settings. They want the government to provide them with more services, expect a long life, eat whenever they want to, engage in less than optimal amounts of physical activities, read books of their choice, and write what and when they feel like, are professionally trained and educated, live in different countries, enjoy different citizenships, and work in lucrative professions. Considering these, we should think of contributing to overcome the misery and poverty of those who are poor and suffering in Sri Lanka. Many children and adults in the NCP suffer from malnutrition, preventable non-communicable disease, and premature deaths, from diseases like CKD-mfo. As individuals and as Groups together, we can make a real difference to the plight of these people. Let us do more to alleviate the suffering and misery of our brothers and sisters in NCP. Truly, it is now or never.

We invite you, who are concerned with rural suffering and the plight of farmers dying in the NCP to analyze the ways they live, feel and act, and how these can be changed with your intervention. Your active participation will make a difference to their life or end in premature death.

Individuals and groups contributing to NCP is good; but by joining the PHEPRO.org, collectively we can assist all affected people in the NCP.

Annual report on the "CKD-mfo prevention project" implementation and the financial audit of the PHEPRO-organization will be sent to all donors electronically. These will also be posted in the website no later than end of first month of the following year. All donors will receive a color copy of the book, "White paper on CKD."

Currently, we are finalizing the structure and the registration of the foundation “PHEPRO.org”. It will be responsible for the longer-term project implementation and financial management. Until then, HBP and WFTF together, with DVF will manage the functions of “PHEPRO.org”.

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3 “Give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime”. Author unknown
Our extensive investigations revealed that the RO method is the most cost-effective, environmentally friendly, scalable, and practical way of providing clean water to these NCP communities. With reference to RO machines, both Indian and U.S. manufactured units are available in the market. However, the latter appears to be the better product considering the cost, quality of purification membranes and filters, and the durability of the machine itself. These RO machines must be maintained through an efficient, long-term program.

**Summary of Issues Related to the CKD-mfo**

**The Need for a Regional Awareness Campaign and a Pollution Prevention Program:**

The availability of centrally purified, pipe-borne water is the safest and the most cost-effective solution in the long term, to overcome CKD-mfo. However, this will take time. It is paramount to launch an island-wide awareness campaign to reduce the use of artificial chemical fertilizers and toxic agrochemicals, and to promote their safer use. Since the farmers are overusing agrochemicals that they are receiving cheap, a gradual reduction of agro-subsidies is needed.

It is of utmost importance to initiate a regional awareness campaign on the prevention of environmental pollution. This educational program will include (i) consequences of drinking contaminated water; (ii) prevention of water contamination; (iii) the importance of using safe, clean treated water; (iv) water conservation methods, (v) prevention of pollution of water sources, soil, and the environment; (vi) essential precautions to be taken by farmers when using agrochemicals, and (vii) utilization of locally available organic substances and compost for cultivation and pest control. We have had an ongoing village-level educational campaign since 2008; however, the efforts need to be intensified.

**Volunteer Professionals are the Most Suitable to Carry Out This Task:**

The Preventive Health, Environmental Protection, and Research Organization (PHEPRO.org) would bring expertise, expatriates and interested local groups and resources together to facilitate and coordinate actions on a clear path, to provide access to clean water to all affected areas and neighboring villages, and conducting a long-term, multi-disciplinary research program. Such action would avoid duplications; enhance the synergies, expertise, and resources to help affected people. This simple and practical model will provide the opportunity to thousands of expatriates and the well-wishers worldwide to contribute compassionately in tangible ways to overcome CKD-mfo in Sri Lanka. The actions of PHEPRO will lead to measureable and beneficial outcomes within the few years.

The Preventive Health, Environmental Protection, and Research Organization (PHEPRO.org) will:

a) Launch an extensive awareness campaign on prevention of environmental and soil pollution

b) Educate and encourage farmers to use less chemical fertilizer and toxic agrochemicals

c) Help the government to reduce agrochemical subsidies to farmers. Educating and encouraging farmers to accept these reductions in their own interest. They are surely aware that massive over use of agrochemicals have resulted in water and soil pollution resulting in premature deaths

d) Educate the farmers on environmental matters, pollution prevention, and the toxicity of agrochemicals, and to provide them with protective gear and encourage them to use such

e) Professionally install and maintain RO plants and other water purification methods in the region, which will result in providing clean water to all affected villages within 24 months

f) Initiate a long-term professional, real-time surveillance program using state of the art methods leading to timely interventions

g) Carry out a scientific, truly multi-disciplinary, real-time data collecting, geo-water, health and socioeconomic ongoing research program covering the entire region

h) Lobby the Department of Agriculture to develop a postgraduate training programs, preferably with reputed universities abroad for emerging young Sri Lankan scientists, in the fields of environment, soil science and ecological aspects, including novel ways to clean-up soil and water pollution.
Current Priorities

- A regional and island-wide education and awareness campaign on prevention of water, soil and environmental pollution.
- The availability of clean potable water using RO and other methods in all affected villages.
- Surveillance program and a broad-based, environmental, sociological, and medical research program for CKD-mfo affected areas.
- The Government needs to allocate adequate funds and facilitate private–public partnerships and collaborators with the not-for-profit sector, and facilitate the long-term maintenance of the project in the region.

Key observations

- The CKD-mfo in Sri Lanka is an “environmental–exposure” disease: CKD-mfo.
- Once acquired, CKD-mfo is a terminal disease for which palliative and other treatments are costly. Therefore, prevention is the way forward.
- Providing access to potable water has a profound impact on controlling water-borne pathogens, toxins, and chemically induced morbidity and mortality. It is paramount to implement the most viable, cost-effective, and sustainable water purification method in endemic areas; The RO methodology currently, is the best option for providing clean water. However, continual evaluation of new methods, and if appropriate to replace RO Technology by including novel Ozone Technologies and others, need to be considered.
- It is essential for the country to have a “Master Plan of Water Management” and a “Clean Air and Clean Water Act.” In addition, Governmental organizations including the National Water Supply and Drainage Board to made responsible and accountable to the people they serve.
- There is no medical solution for the prevention of CKD-mfo. Thus, bulk of the research should be focus on prevention of the disease. Therefore, truly multi-disciplinary research should be done incorporating agriculture, soil sciences, engineering, social sciences, and medicine.
- These clinical scientific research programs should be guided by the real-time data collection through broad-based preventive health strategies and surveillance.
- A long-term surveillance program covering clinical care provided locally, and a ground-based disease-prevention research program should be initiated in all CKD-mfo affected areas.
- Recommendations made by various groups to avoid CKD-mfo need to be properly assessed and the best systems and practices should be implemented to resolve this disease.
- Action must be taken immediately to prevent the spread of CKD-mfo and its rising incidences in the affected areas. Data must be collected, analyzed and especially to validate the program and to assess its outcome.

PHEPRO.org will lobby to implement the 20 specific recommendations provided in the White Paper to eradicate the poverty, malnutrition, and the CKD-mfo from the NCP and from the country.

The country needs to preserve flora, fauna, and the environment, and protect the natural resources, not only for the present but also for the generations to come.

A combination of sloppy farming habits, dehydration, harsh climatic conditions, and consumption of polluted water, overuse of anti-inflammatory painkillers, use of locally brewed illegal alcohol and drugs, tobacco use, exposure to agrochemicals and petrochemicals, and leptospirosis, all potentially contribute towards the epidemic of CKD-mfo (Figure 3). Nevertheless, some of the key plausible causes for CKD-mfo in Sri Lanka have not been investigated yet.

Taken together the available data, geographical distribution of CKD-mfo, and CKD deaths, suggest that it is a multi-factorial, environmental-exposure disease.
Develop a novel interactive patient registry and a global data-repository for CKD-mfo in Sri Lanka.

A well-planned, continuing surveillance program and a ground-based disease-prevention research program must be initiated in all CKD-mfo areas. These programs should be guided by state of the art methods that lead to effective preventive health strategies. ORPHANS.Org will facilitate all these.

Patients with CKD-mfo, most of whom are males, often are the primary breadwinners of households. Thus, a special government-assistance program must be implemented in the region to take care of those families, with special emphasis on children’s education, dietary, and nutritional needs.

A well-planned, continuing surveillance program and a ground-based disease-prevention research program must be initiated in all CKD-mfo areas. These programs should be guided by state of the art methods that lead to effective preventive health strategies. ORPHANS.Org will facilitate all these.

Develop a novel interactive patient registry and a global data-repository for CKD-mfo in Sri Lanka.

Providing prompt treatments through “local clinics” that provide free medications, and efforts on preventing spread of the disease, and eliminating CKD-mfo.

**Additional Recommendations and Actions Needed**

- CKD-mfo is a terminal disease; thus, prevention is the way ahead. It is of utmost importance to initiate a region-wide awareness campaign on prevention of environmental pollution and poverty alleviation.  

- Use of appropriate technology through education and enhancing the awareness of the disease and its prevention, environmental pollution, and behavioral changes must meet the needs of the villagers, and simple, to teach and understand, and be effective.

- The education messages used, whose subjects are farmers and their families, need to be consistent and subject to outcome validation. The use of participatory rural education tools, such as social mapping, posters, families and focus group discussions should be included in this task.

- Because of the diverse study designs and data collections used, meta-analysis of data is not possible. The continuation of future research in the same line is unlikely to achieve useful data or identify agents that cause CKD-mfo. Hence, it is necessary to develop and use uniform research methodologies, before more public funds are spent on CKD-mfo research.

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- Develop a novel interactive patient registry and a global data-repository for CKD-mfo in Sri Lanka.

- Providing prompt treatments through “local clinics” that provide free medications, and efforts on preventing spread of the disease, and eliminating CKD-mfo.

**Timeline in accomplishing the projects:**

<table>
<thead>
<tr>
<th>Sub-Projects</th>
<th>3 months</th>
<th>6 months</th>
<th>12 months</th>
<th>24 months</th>
<th>48 month</th>
<th>120 months</th>
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<tr>
<td>1 - White-Paper distribution</td>
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<td>8 - Elimination of CKD-mfo</td>
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**Become a Part of the “Preventive Health, Environmental Protection, and Research Organization (PHEPRO.org), to help those who are afflicted with the disease in the NCP**

Once funds are available, the PHEPRO.org will embark on this program at once, and it will provide clean water to all affected and surrounding villages in the region using RO units, within 24 months. Donating just $65 can save a life, provide family clean water for life, or educating a child/scholarship for one-year [WETF]. In addition to providing clean water, PHEPRO.org will also provide sanitary toilet facilities. Remembering the future generations, who are more knowledgeable on environmental affairs, the Government and those who are concerned of the plight of the poor, helpless, and innocent people of Rajarata should undertake firm commitments that lead to sustainable and preventative action.

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4 Health is Wealth; The wellbeing results in higher productivity and contentment, and prosperity.