‘Respect Water Campaign’ & DRR

Primary/ Secondary Schools - Colleges - Gumba – Youth Groups - Universities

Email: weare.ktm.nepal@gmail.com Office: +977 981 2500082 Field Officer: 982-9110696 FB @ #kvwrmi

Augmented Modular Education for Peripheral Curricular Subjects of Respect Water & Environment and Disaster Risk, Health and Hazard Inclusivity and Awareness Training & Support

KTM EDCU Authorized

Kathmandu Education Development & Coordination Unit Authorised



RESPECT WATER AND ASSOCIATED HEALTH & DRR TRAINING CAMPAIGN

Prospectus

“The sooner that you can generate the young person’s thought processes as to the challenges, the sooner they will develop and assist in the ownership of the solutions, thus providing the much sought after Sustainability and Resilience”

"जति चाँडो तपाईले चुनौतीहरूको सम्बोधन गर्दै युवाको विचार प्रक्रियाहरू प्राप्त गर्न सक्नुहुन्छ, उनीहरूले चाँडै विकास र समाधानहरूको स्वामित्वमा सहयोग गर्नेछन्, यसले दिगो विकासका लक्ष्य प्राप्तिमा पनि सहयोग पुऱ्याउनेछ"

RESPECT WATER CAMPAIGN

Introducing Pupils, Students and Children and Teachers, through to families, to the Need to Respect Water. To understand the importance of and role of water across society and within our environment. Encouraging participation via discussion, observation, taskings, projects, initiatives and experiments, all in a pyramid modular system for developing Water Literacy, contribution and achievement ucation sector and com

‘KVWRMI’

‘PAN’

Sponsors / Partners / Stakeholders / Donors / Collaborators

Clean up Nepal

"The sooner that you can generate the young person's thought processes as to the challenges, the sooner they will develop and assist in the ownership of the solutions, thus providing the much sought after Sustainability and Resilience"

"जति चाँडो तपाईंले चुनौतीहरूको रूपमा बच्चाहरूको विचार प्रक्रियाहरू उत्पन्न गर्न सक्नुहुन्छ, तिनीहरूले चाँडै विकास गर्नेछन् र समाधानहरूको स्वामित्वमा सहयोग गर्नेछन्, यसरी दिगोपन पछि खोजिएको यो धेरै प्रदान गर्दछ"

"Every child is Equal in need of opportunity and deserved of Education – Protection - Welfare and Guidance"

Concept

Outside of the curriculum lays a vast array of knowledge, that whilst not always formally taught during daily classes, remain crucial to pupils as they approach their higher education and emergence into the adult world of work, responsibilities, family and survival in a fast changing world of economics, environment and climate. Within Kathmandu Valley, and across all Nepal, its society is facing an uncertain future of sustainability and resilience. The Youth are the future and key to the necessary change. Allow them to become part of the solution, potentially generating 'Biosphere Reserves'; for that we need arm them with the necessary 'hydrosocial' knowledge and 'water literacy' skills to contribute and to generate innovation and positive initiatives. The following campaign of modular subject matter is offered as independent components either integrated as consecutive program or taken piecemeal as priorities dictate and as individual education establishments and authorities wish to embrace and package incrementally. All subject matter is designed to prepare and enhance a young person's contribution to a better world, with respect for the environment and the critical resource of Water.

Government and Formal Education Authorities are under pressure to meet traditional curricula, with expectations increasing each year to reach approved standards and National / International comparative objectives. Subjects such as Environment and Health and DRR are under enormous stress on 'how to be' incorporated within the Core subject Curricula. Consequently, informal module provision to fill gaps in preparing students to adapt to, survive within and contribute to society, will be paramount in the minds of parents, and those of Teachers and Principals, expected to provide that comprehensive education. A T4 Teacher support program is being developed on how to integrate the periphery subjects.

Policy within DRR and Green Schools Initiatives

Green City and Green Schools are intricately linked with the Resilient Cities and DRR Strategy, without this synergy, sustainability and Resilience could not be achieved. Green Cities program is one of the tools to fight climate change, urbanisation, emerging pollution health issues, either from air pollution or water, propagating water borne diseases or associate plagues derived from mismanagement of water resources'. Whilst there are numerous Agencies and Community Initiatives addressing WASH and water consumption efficiencies, these are only two facets of the overarching issues of water resource that affect the schools or indeed from which school need learn and prepare their pupils to be contributory to the wider solutions. Primarily ignorance of the importance of water and where it is derived from and how the contribute to its demise, is essential if we are to create a sustainable and resilient society. Kathmandu Valley and the Terrai are presently on an unsustainable path unless water is top of Agenda and within every facets of DRR and 'Green' Policy Strategy.

Collaboration

With over 1500 schools & colleges across the KTM Valley its necessary to generate collaborations and specialist contributions to present individual modules and their components of each module. The KVI team **along with Karyashala [who specialise in the 'whats next' Practical hands-on Education Development]** will be coordinating associated specialists and agencies to cooperate in the presentation of individual modules and their specific components to Grades and pupils and teachers, assisting with practicals within schools and in the field. We anticipate a minimum capacity of 25 individuals/ interest representatives required to enable the full provision of objectives. It is necessary to also engage with the higher authorities of Government Education, Ministry departments and advisory groups /individuals. Parent Teacher Associations and INGO / NGO Education Agencies will be embraced. Mayors' offices and expert water resource management groups need inclusion along with environmentalists, climate and health sectors, security advisors and Education providers representation from within Nepal and from abroad.

Why

Significant interest is being generated from visited schools, that help is requested to assist with creating better understanding of the environment and water resource management and all that contributes to 'water literacy', within the valley.



It's essential that students make the connection to their everyday world, where human activity alters the hydrologic cycle, referred to as 'HydroSocial Knowledge'. Similarly, Disaster Risk Reduction subjects are creating significant interest with Principals requesting help and guidance in re igniting drills and risk awareness amongst pupils and staff.

A key tool of education is practical hands on experimentation, field visits and taskings. This physical Awareness leads to knowledge through participation making contribution via commitment, creating solution, enabling sustainability and generating a resilient and productive society.

How

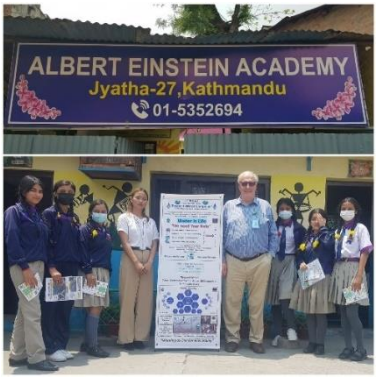
The program has been modulated embracing various components to meet the individual presentation and participation needs of grades 1 to 12. Each module discussion is designed as a 40minute session to fit in school time-table, to be delivered as school schedule permits, weekly/ monthly. An interactive approach is proposed with various practical option features to ensure 'inclusivity' and pupil contributions including: experiments, field visit activities, laboratory demonstrations, class activities such as Posters, stories, songs and creation of games. In addition, various optional taskings can be generated, which will encourage pupils to personally participate, activating accreditation and rewards badges, certificate/ blue stars for individual objectives met and for contributory achievements; all of which generate greater Respect for Water and the many facets of our environment and daily lives that are totally dependent upon sustainable water resource management. Without water being a focus and its management firmly front and center of the Green and DRR policy, the SDGs will be unachievable and sustainability and resilience will diminish to chaos.

Vision

That all education facilities engage to generate awareness of the plight within the Kathmandu valley and the multiple Communities across Nepal at risk from lacking sustainable water supply, increasing pollution and emerging drought in the Terrai, all contributing towards the looming water resource crisis. That pupils are encouraged to be participatory towards a better understanding of the challenges, and components and of the potential solutions, generating an integrated collaborative inclusive approach, benefiting society through 'Community Outreach' generating 'Water Literacy' within the home and workplace and school, creating the elusive sustainability and resilience.







Since February 2023 the Respect Water Campaign Team have consulted with over 100 Schools and have Presented 'Introductory Sessions' in 37 Schools to over 1400 pupils, as part of its pilot demonstration program across the Kathmandu Valley, both in Community and Private Schools, generating feed back and fine tuning of the prospectus, along with its Presentation material formats and 'hand outs', in preparation for a more comprehensive roll out across all schools. However to achieve the greater roll out there is the requirement to work in collaboration with higher Government, Ministry of Education and ECHRD. Policy so far in the Education Strategy has failed to embrace the notion that water resource management and its associated challenges are anything beyond solely WASH and Water Conservation.

If we are to prepare society and the youth joining society as contributors to necessary strategies and enforcement and respect of water resource requirements, then National Policy must embrace the wider understanding and needs of water, for that we must first make our youth aware of the challenges that lay ahead and how they can be and must be not the continued problem of ignorance and the disenfranchised but to take ownership of the issues and be part of the adaption process and its sustainable and resilient solution.

The Terminology Green School / Green City does not only apply to planting of trees and waste management, recycling and components of WASH, but its about mentoring the youths mindset, thinking beyond the school boundary and indeed beyond their school experience, making them aware of their environment and its ecological dynamics, preparing youth to be contributory to a better society where they take ownership, become the entrepreneurs and generate the solutions to a cleaner, sustainable and more resilient society, beginning with awareness of the environment and its ecological dynamics, and its needs. The RWC objectives target Youth, and Teachers, contributing to community outreach, motivating and empowering individuals to be part of the solution.

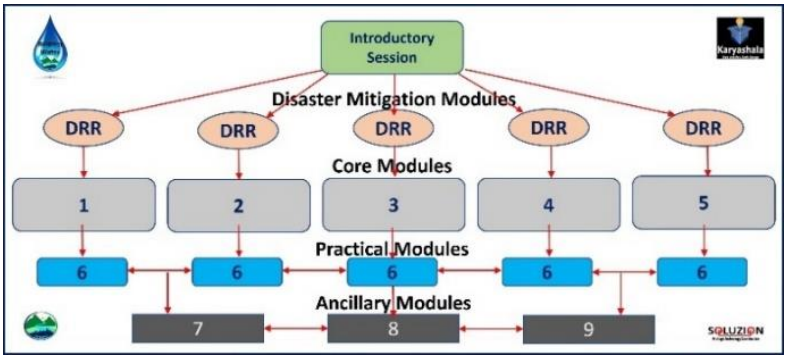
Schools Colleges Proposal to engage within the Respect Water Campaign
Module Components delivered per grade in a series of convenient 'byte size' Sessions

- **Open informal introductory sessions**
  - Objectives of Respect water Campaign using power point / posters towards 'water literacy' and Take Home 'Flyers' as part of the Community Outreach program
  - Incorporating DRR 'Byte modules' into all sessions
  - Invite to Poster Campaign / Photos / Drawings / Stories

- **Teacher modules**
  - To accompany each class session as a takeaway to reinforce session
  - Integration within School curriculum
  - Teacher Seminars including Practical Teaching Development
  - Psychology - DRR - effects upon students [optional]

- **Understanding the problems and challenges** In KTMV / Nepal / World
  - in KTM water usage – aquifer management – pokharis, hitis and springs - pollution of rivers - waste management - diseases - ecology
  - in Nepal water usage drought and flood disease agriculture contamination, water sources and climate impacts
  - Oceans contamination and plastic damage from rivers to marine life

- **Understanding the Holistic approach** where all are inter-dependent upon each other
  - the need for multiple projects and initiative to work together
  - the need for collaborations between communities' agencies and government
  - the need for community / school collaborations





Meghan McCarroll and Hillary Harmann



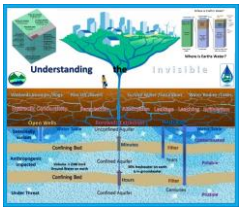
Hand Out materials and Practical DRR Training during the Introductory 1st One Hour Session

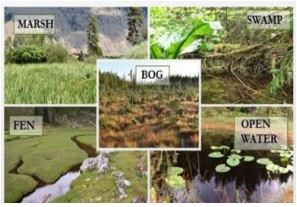
1. **Understanding Waste & Pollution** :



   - **1.1.** Waste Management overview
   - **1.2.** Recycling benefits
   - **1.3.** Home segregation
     - 1.3.1. Composting /traditional/ modern methods
   - **1.4.** Air Pollution
   - **1.5.** Overview of Management strategies adopted in KTMV
   - **1.6.** Water Borne and Water Associated Diseases - Dengue Cholera Typhoid Gastroenteritis

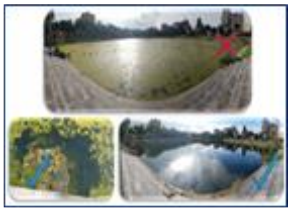
2. **Understanding Ground Water & Water bodies**





   - **2.1.** Aquifers
   - **2.2.** Wetlands
   - **2.3.** Lakes Pokharis Hitis
   - **2.4.** Rivers Streams Canals
   - **2.5.** Springs
   - **2.6.** Overview of Tap water supply mechanisms and strategies in KTMV [incl Melamchi options]

3. **Understanding Floods / Catchment / Drought Management / Agriculture needs**



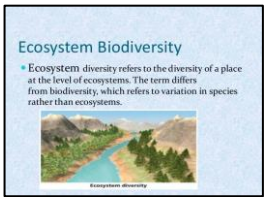
   - ***3.1. Basics of Meteorology - the making of Floods, Drought, Monsoons etc***
   - **3.2.** Harvesting – run off /bio filtration
   - **3.3.** Storage - Pokharis /Wells /Tanks
   - **3.4.** Irrigation – micro drip /flood /
   - **3.5.** Home/ roof gardens subsistence agriculture/ Composting
   - **3.6.** Agriculture – Open field / Greenhouse Poly Tunnel / Hydroponics/ Aquaponics
   - **3.7.** Aquaculture – open ponds/ tanks & Aquaponics
   - **3.8.** Water needs – recovery / maintenance / new technologies
   - **3.9.** Tips and Tricks for Smart Water usage at Home and in School



4. **Understanding Green City and Rural Environment Components**

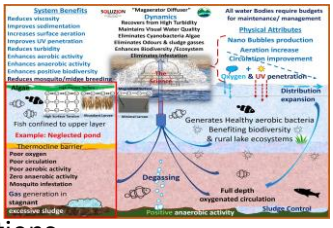






   - **4.1.** Sponge City /
   - **4.2.** Climate Change
   - **4.3.** Eco Diversity/
   - **4.4** Bio Diversity
   - **4.5** Biosphere Reserves
   - **4.6** Basic Meteorology rains/ drought/ wind effects upon environment
   - **4.7** Basic use of maps zoning/ NSEW/ Lat/Long/ Travel to site

5. **Understanding Water Treatment / Sanitation / Water Diseases/ Water body recovery / Water Needs**



   - **5.1.** What water needs to build water immune system and a resilient biodiversity
   - **5.2.** Introducing new ideas to counter human activity pollution and disrespect to generate water quality
   - **5.3.** Creation of water borne diseases due to poor sanitation and water Management
   - **5.4** Overview of examples of water treatment, recovery / basic community solutions

6. **Next:**

6.1 **What You can do** as Individual / Class / School /

- **6.1.1** Identify local issues that you can contribute to i.e. adopt a pond/ Pokhari river embankment park to help keep clean
- **6.1.2** Within school create separate bins segregation for waste/ Canteen composting
- **6.1.3** Older Students to arrange to help younger pupils engage/ mentorships
- **6.1.4** Fight Mosquito: emptying water containers and to dress correctly

6.2 **Projects / Experiments** in class / [examples]

- **6.2.1** Experiments to understand sedimentation in water
- **6.2.2** Experiments to understand viscosity
- **6.2.3** Experiments to understand air pollution [a contaminator of our water]



6.3 **Laboratory tests**

6.3.1 Experiments to understand how water is affected by Mood and surroundings

6.3.1 https://igamemom.com/water-science-experiments-for-kids/

6.4 **Field Visits**

6.5 **Games** including consequences of actions

6.6 **Songs/ Lyrics /Poetry** submissions and contests about challenges and action

6.7 **Stories** from ancients reflecting upon water resource management

7. **Action Plan** Contributions / Involve family

7.1 Individuals

7.2 Family community

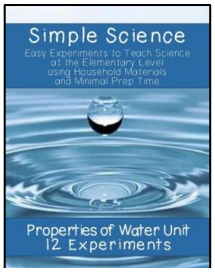
7.3 Family Connections helping to spread the Respect Water Campaign or collaborate in any single component to promote KVWRMI

8. **Suggestions** / what else 'you' want to know re Environment / Water Dynamics

8.1 School bespoke priority Module(s)

8.2 Bespoke School action plans





9. **Refresher Summary Module(s)**

9.1 Review of critical components [school priorities]

10. **Junior Citizen Science participation**

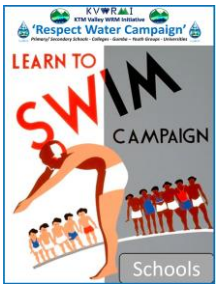
10.1 Participation in coordinated programs across the valley / individual/ group/ family/ class

10.2 School Cluster programs / sharing resources/ sharing expertise/ facilities

10.3 Contribute to KVWRMI Valley Mapping of observations and features

10.4 International National Competitions/ Coordinated Collaborations/ Projects

11. Water Related DRR Awareness and training ['byte modules' for pupil and Teacher] Qualified/ Experienced/ Agency Trainers





11.1 Flood response

- **11.1.1** Property risk awareness
- **11.1.2** Drills and preparedness
- **11.1.3** Grab bags
- **11.1.4** Know the alarm warnings
- **11.1.5** Learn to swim

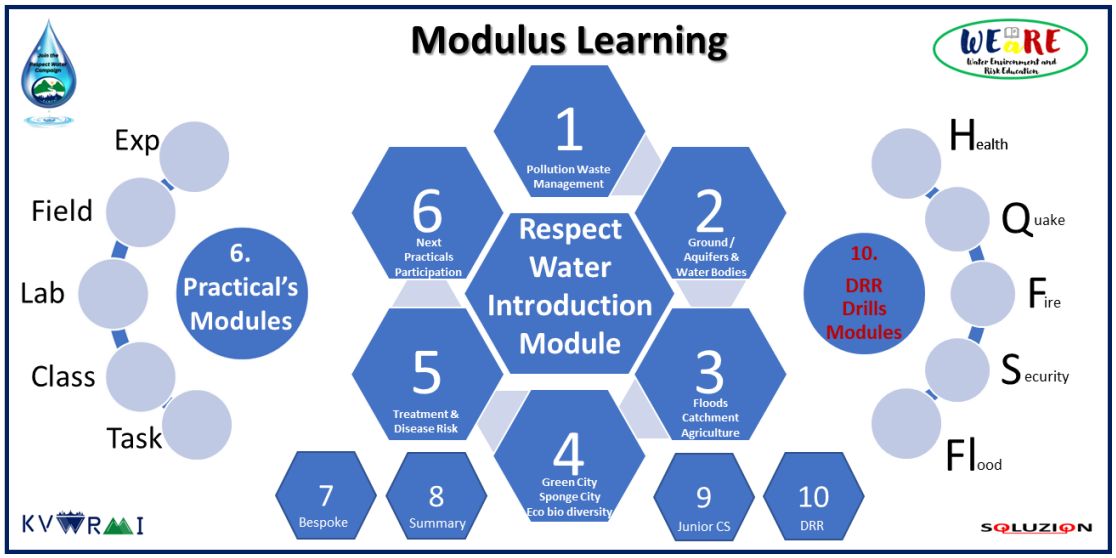
11.2 Health

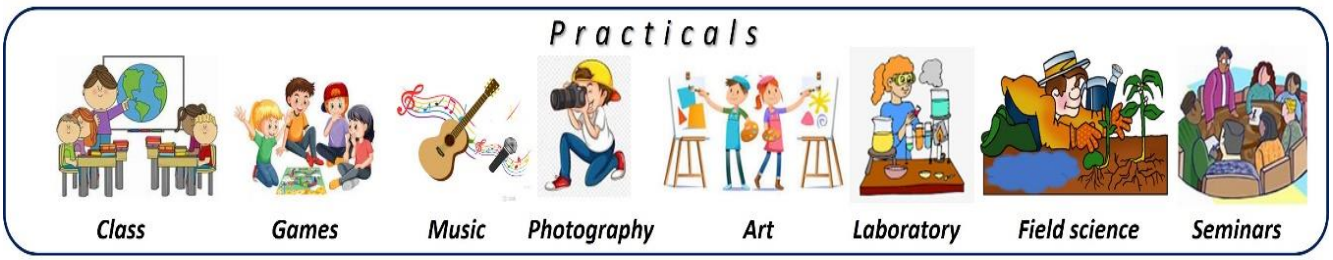
- **11.2.1** Diseases / waterborne Cholera /Typhoid
- **11.2.2** Mosquito Dengue /Malaria /prevention
- **11.2.3** Virus [covid] [Flu] best practices
- **11.2.4** Food preparation / Hygiene
- **11.2.5** Personal health
  - 11.2.5.1 Sanitary / WASH
  - 11.2.5.2 Waste management
  - 11.2.5.3 Water quality / Purifying
  - 11.2.5.4 Diet
  - 11.2.5.5 Cleanliness/ Hygiene
    - 11.2.5.5.1 Body
    - 11.2.5.5.2 Clothes
    - 11.2.5.5.3 Menstrual
  - 11.2.5.6 First Aid basics
- **11.2.6** Exercise - Gym/ Outdoor pursuits











"With the paddy fields went the water.. when the paddy fields went .. the aquifer recharge went... with the loss of the paddy fields... Kathmandu's long-term sustainability dissolved"!

KVWRMI
KTM Valley WRM Initiative
Holistic Strategy with Integrated Collaborative Approach

500,000+ students
2000+ Schools
In Valley

Kathmandu Valley looming Crisis in next 15 years

Mismanaged rain harvesting =
Increases dengue

6 ½ % pop growth pa = Doubled in 12yrs

10 Key Rivers
Multiple tributaries
All Polluted





80% water tanker supplies found contaminated in 2023

Eliminating Greenery =
increases Temps and Air Pollution

Valley hill forests depletion =
Generates Faster runoff
increases flood risks

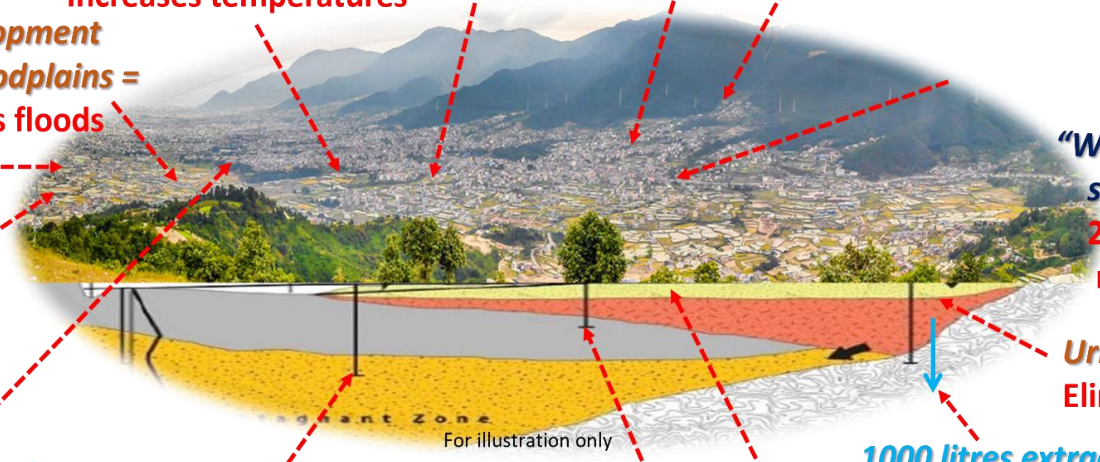
Increased Urban run off =
Increased flooding

Urbanization =
Increases temperatures

Pokharis
Poorly designed
Poor maintenance
Poor water supply

Development on floodplains =
Causes floods

Urbanization Weight =
Causes settlement



"With" Melamchi Tunnel supply =
20% shortfall of water resource remains

Wetlands being mismanaged and destroyed =
Loss of bio-diversity

Urbanization =
Eliminates recharge

Constrained Rivers =
Causes floods

Aquifer excessive extraction =
Causing Subsidence already 2ft in places increasing by 20cms per year

Aquifers being drained uncontrollably

1000 litres extracted from deep Aquifers in 1hour =
Takes years to recharge naturally

Mismanaged water =
Increasing water borne diseases infections
Cholera Typhoid Gastro

Water Table Aquifer
Contaminated below drinking water quality

Water Table dropped by 3 – 6m since 2011

Hitis System
Misunderstood
Supply's destroyed
Polluted supplies

Landfill into 2nd Valley already

Presently Zero Waste Segregation at source

SOLUZION

EDCU MOU
KVWRMI

WEaRE
Water Environment and Risk Education

UNDRR
UN Office for Disaster Risk Reduction
GETI Partners for Nepal
WEaRE

'Respect Water Campaign'

A 10 year Grade cycle Awareness program in a modular format

Environment - Aquifers - Waste Management - Rivers – Wetlands
Pokharis - Green City - Sponge City - Hitis System - Valley History - Agriculture -
Forest Hills – Roof Garden Production – Water Resource Management

Incl +

+DRR *Awareness, Preparedness & Response Training*

For all Hazardous Risks including School Hazard Mapping
Earthquake - Fire - Flood - Landslide - Personal Security & Health Risks

+ Bespoke

T4 & TC7 Specialist Skills Training for Principals & Teachers

H&S In Schools, Fire Wardens & 1st Aider Certificated Courses - Crowd Dynamics
UNDRR Comprehensive Schools Safety & Resilience Development Programs
School Assessments, Guidance & Crisis Management Courses + Inclusivity CARE



WEaRE is the Implementation Coordinator Agency for PAN

KVWRMI
Kathmandu Valley Water Resource Management Initiative

The Principals Association of Nepal
Educate, Empower, Excel: Principals of Nepal Leading the Way

WEaRE 'Care-Plus'
Inclusivity
Physical-Mental-Social

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Extending all Nepal within the Master Planning Initiative & PAN Implementation

MPI
Implementation Agency
PAN

Municipality / District / Province
Comprehensive Integrated 'Master Planning Initiative' MPI
For Economic Development, Welfare & Health Education, Cultural Conservation, Environment, Agriculture, Tourism, Cottage Crafts Infrastructure & Governance + Vocational Training Strategy YTS Incl DRR/ Crisis Management Planning & Response to be managed & coordinated By MPI

Implementing a Future of Excellence in Education: Supporting a visionionary future where every school principal is equipped with the skills, knowledge, and support necessary to lead with excellence. PANs collaborative efforts are geared towards creating a thriving and safe educational landscape that prepares students for success and resilience in a rapidly evolving world

MPI *For Mayors +* WEaRE *for Communities +* PAN *for Principals*

"The MPI Master Planning objectives are to establish a framework for the development and implementation of core contributive and benefactor disciplines, nurturing a healthy, educated and prosperous society in harmony with their environment"

We have Confirmed the Need - We have the Methodology

WEaRE & MPI

We 'now' actively Seek Endorsement 'Partners'

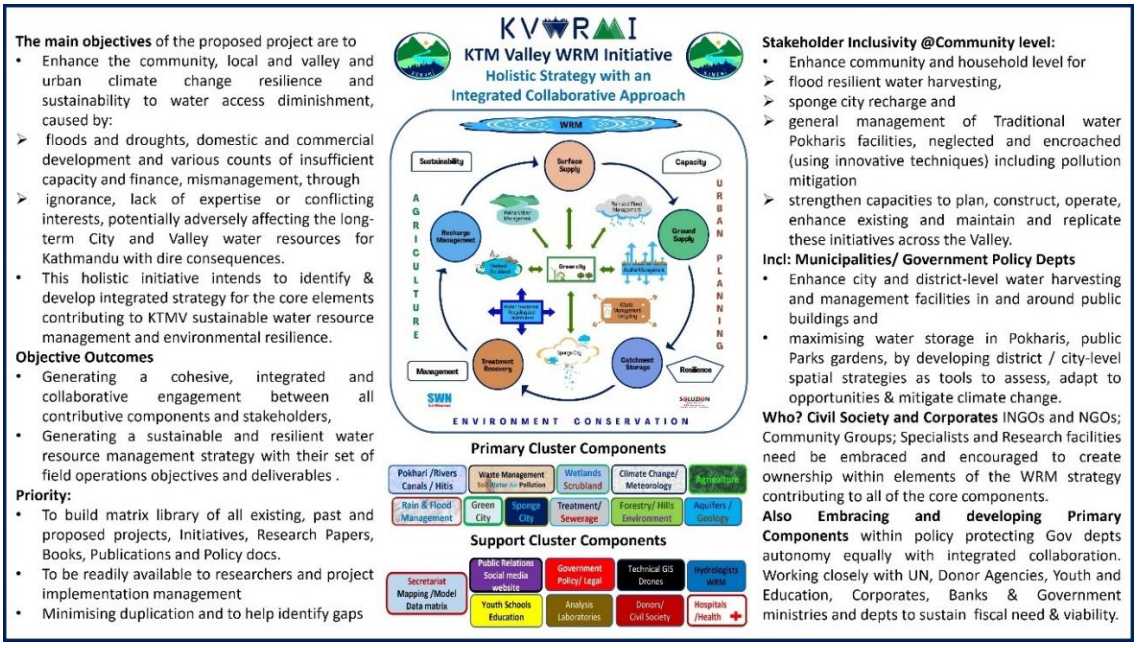
Development & Implementation Partners / Collaborators, Stakeholders & Donors & Fund Managers

Office: +977 9812500082 Email: weare.ktm.nepal@gmail.com

Why the *WEaRE* / KVWRMI Team?

Water resource management requires an holistic approach. No singular component can solve sustainability of water management for a growing city environment. Most cities are built around rivers that arrive from hundreds of kilometers of watershed. Kathmandu City is confined within a valley with no natural outside river sources, being totally reliant upon all that derives from within the limited water shed, which includes ten river sources from the surrounding hills and aquifer access plus seasonal rainfall. To ensure the fast-growing City remains sustainable, robust and with a long-term resilient viability, the limited water access needs to be maximized and contribute to numerous components for 21st century expectation within climate change with economic and population growth. Equally Nepal within it various regions is experiencing multiple water resource challenges, and the effects of excess water or drought; understanding the dynamics of Hydrological Units, from Glaciers to the Terai flood plains

WEaRE **are embracing** and developing Primary Components within policy, protecting Gov depts autonomy equally with integrated collaboration. Working closely with UN, Donor Agencies, *Youth and Education*, Corporates, Banks & Government Ministries and Depts to sustain fiscal constraints & viability. WEaRE is establishing sector platforms and consortium groups to improve capacity and skill sets to address expert knowledge share.



The Respect Water Campaign is now Authorized by the KTM Education Development & Coordination Unit

