



POLICY BRIEF # 46

Addressing Vitamin D Deficiency through Traditional Medicines:

Recommendations for the Ministry of Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy (Ayush)

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AUGUST 2025

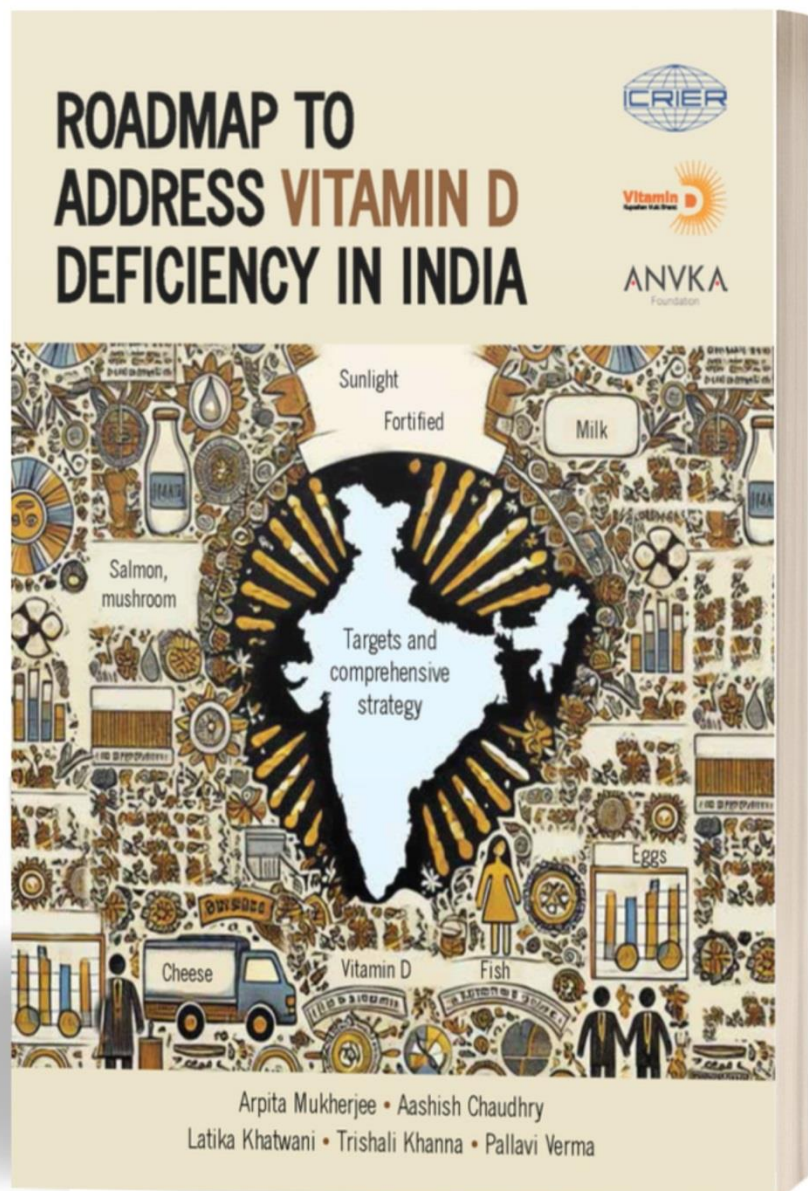


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Abstract

In India, traditional medical practices are among the most trusted paths to healing, including practices such as Ayurveda, Yoga, Unani, etc. While they can treat and prevent micronutrient deficiencies, their potential remains largely untapped in addressing Vitamin D deficiency. According to the ICRIER-ANVKA Foundation 2025 report titled, “*Roadmap to Address Vitamin D Deficiency in India*”, one in every five Indians is Vitamin D deficient. Among them, children, adolescents, pregnant women and the elderly are the most vulnerable. This deficiency is linked to health conditions such as rickets, osteoporosis, chronic fatigue and pre-eclampsia. Preventing the spread of this epidemic is now a priority for the government and traditional medical practices can play a key role in this.

This policy brief underscores the pivotal role of the Ministry of Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy (Ayush), in addressing Vitamin D deficiency through policy initiatives. These include building awareness and promoting *heliotherapy*, launching *dietotherapy* campaigns [including working with Indian Council of Medical Research – National Institute of Nutrition (ICMR-NIN) and Food Safety Standards Authority of India (FSSAI) on food fortifications and right diet], promoting the use of traditional medicines to improve the body’s natural healing abilities, collaborating with the FSSAI to relaunch *Project Dhoop* to encourage safe sun exposure across all population groups, training and capacity building of Ayush health workers to identify and address the deficiency, developing multi-stakeholder partnerships for twinning of traditional medicines with modern healthcare and encouraging research and development to produce formulations/reformulations of traditional medicines to address the deficiency.

By utilising the strengths of its own rich legacy and traditional medical practices, India can realise the goal of “*Vitamin D Kuposhan Mukh Bharat*” and lead the world in offering natural and sustainable health solutions to combat micronutrient deficiencies.

Acknowledgments

We are grateful to Dr. Aashish Chaudhry, Director, Managing Director, Aakash Healthcare Pvt. Ltd., for giving us the opportunity to work on this policy-brief, which is based on our report titled “Roadmap to Address Vitamin D Deficiency in India”.

We are grateful to all our experts from the Indian Council of Medical Research – National Institute of Nutrition (ICMR-NIN), National Pharmaceutical Pricing Authority (NPPA), Central Drugs Standard Control Organisation (CDSCO), National Institute of Food Technology, Entrepreneurship and Management (NiFTEM), Public Health Foundation of India (PHFI), United Nation World Food Programme and the Global Alliance for Improved Nutrition (GAIN) for their valuable insights, which greatly enriched our understanding. We sincerely thank the team of doctors from AIIMS, Aakash Healthcare and Max Healthcare, for their valuable inputs.

We are especially grateful to Dr. B. Sesikeran, MD, Former Director, National Institute of Nutrition (NIN), Indian Council of Medical Research (ICMR), Dr. Seema Puri, Professor (Retd.), Institute of Home Economics, and Dr. Sirimavo Nair, Professor, Centre for Public Health, Navrachna University, Vadodara, currently serving as Scientist & Chair, Nutrition & Fortification, Food Safety and Standards Authority of India (FSSAI) and Working Committee Member of Codex, for their review and suggestions. Their invaluable contribution significantly strengthened our findings.

We sincerely thank Ms. Kulpreet Freddy Vesuna, Consultant at ICRIER, for her valuable support, and extend our gratitude to the entire administrative and support staff of ICRIER for their contributions. Lastly, we are grateful to Ms. Tara Nair for copy-editing and Mr. Sanu Kapila of Academic Foundation for printing this policy brief.

Key Words: *Vitamin D Deficiency, Traditional Medicine, India, Dietotherapy, Heliotherapy, Ayurveda, Naturopathy*

JEL Classification: *I10, I18, I19.*

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List of Abbreviations

Ayush	Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy
CCRAS	Central Council for Research in Ayurvedic Sciences
CDSCO	Central Drugs Standard Control Organisation
FSSAI	Food Safety Standards Authority of India
GAIN	Global Alliance for Improved Nutrition
ICMR-NIN	Indian Council of Medical Research – National Institute of Nutrition
MoA	Ministry of Ayush
MoHFW	Ministry of Health and Family Welfare
MoWCD	Ministry of Women and Child Development
NiFTEM	National Institute of Food Technology, Entrepreneurship and Management
NIN	National Institute of Nutrition
NPPA	National Pharmaceutical Pricing Authority
PHFI	Public Health Foundation of India
PPP	Public-Private Partnerships

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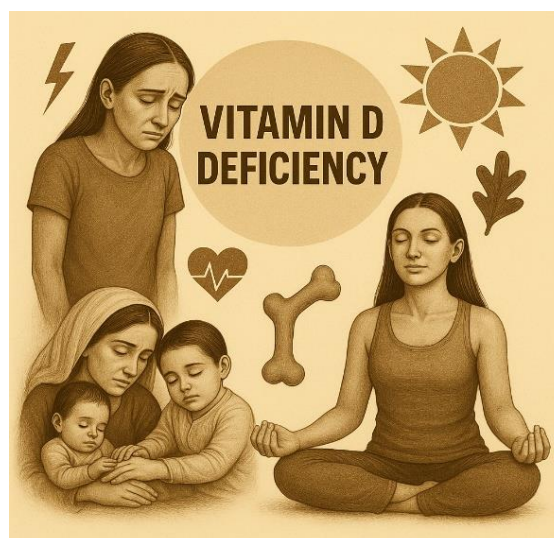
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1. The Traditional Cure: Addressing Vitamin D through the Natural Way

In our rich history, nature has served as the primary source of healing, offering essential nourishment and remedies. This is embodied in traditional systems of medicine like Ayurveda, Yoga, Unani, Siddha or Homeopathy. Among them, *Ayurveda* is globally known for preventive care, disease management and holistic well-being.¹

India is among the global leaders in traditional medicine. However, the potential of traditional medicines remains largely untapped in addressing the growing incidence of micronutrient deficiencies in the country, particularly Vitamin D deficiency, by boosting the body's natural healing abilities. Today, Vitamin D deficiency is a silent epidemic with nearly one in five Indians being Vitamin D deficient.³ This deficiency is especially high among children, adolescents, pregnant mothers and the elderly. It is associated with a range of serious health conditions, including rickets, osteoporosis, chronic fatigue, obesity and pre-eclampsia.⁴

Several global examples highlight the role of traditional medicine in addressing micronutrient deficiencies. In China, for instance, Chinese herbal medicine (*Dang Gui Bu Xue Tang*) is used to improve iron uptake and treat anaemia.⁵ Further, in Africa, plant-based sources (like *amaranth* and *baobab leaves*) are used to cure Vitamin A deficiency.⁶



"80% of the global population relies on traditional medicine."

-WHO (2022)²

¹ In India, traditional medical practices have long played a vital role in managing chronic conditions such as asthma, eczema, high blood pressure and rheumatoid arthritis, and continues to offer solutions to evolving health challenges.

² <https://www.who.int/news/item/25-03-2022-who-establishes-the-global-centre-for-traditional-medicine-in-india> (Last accessed on July 30, 2025).

³ See Mukherjee et. al., (2025).

⁴ Schoenmakers et al., (2013), Schott et al., (1976); Gloth et al., (1995); Omdahl et al., (1982); McKenna (1992); Girgis et al., (2019)].

⁵ Huang et al., (2016), Neugart et al., (2017).

⁶ Guan et al., (2023).

2. The Role of the Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homeopathy (Ayush) in “Vitamin D Kuposhan Mukh Bharat”

Given the widespread prevalence of Vitamin D deficiency-related diseases and the strong foundation of Indian traditional medicine in preventive care and natural healing, the **Ministry of Ayush (MoA)** is well-positioned to play a transformative role in providing solutions to address this deficiency. The MoA plays a key role in reviving the profound knowledge of our ancient systems of medicine, which aims among other things, to “ensure widespread access to Ayush services and products, aligning with sustainability goals and enhancing public health”.⁷ Ayurveda promotes moderate sun exposure during the early morning or late afternoon that can boost Vitamin D. Homeopathy is used in many countries to manage Vitamin D deficiency related symptoms. Twinning of traditional medical practices with modern medicine can help address Vitamin D deficiency. Traditional medical practices also can help address reasons for the deficiency through nutritious foods and by promoting yoga, the benefits of sun exposure and outdoor activities. This will enable the development of culturally rooted, affordable and sustainable solutions to combat Vitamin D deficiency while simultaneously advancing India’s traditional medical knowledge to address micronutrient deficiency on the global stage, helping countries suffering from such deficiencies to adopt the India model. As India moves toward a *Viksit Bharat@2047*, mainstreaming such integrative health strategies will be essential to build a healthier and self-reliant nation. Therefore, the MoA can play a critical role in “Vitamin D Kuposhan Mukh Bharat”.

“For many millions of people around the world, traditional medicine is the first port of call to treat many diseases.”

- World Health Organization (WHO) Director-General Dr. Tedros Adhanom Ghebreyesus (2022)

The following six actions can be taken by the MoA to help address Vitamin D deficiency.

2.1 Promote Heliotherapy under Naturopathy Practices to Address Vitamin D Deficiency

- *Heliotherapy*, which is the use of sunlight to treat medical conditions, is an established naturopathy practice under the MoA.⁸ It can be promoted as a natural intervention for Vitamin D deficiency. The Ministry can promote the benefits of sun exposure⁹ for the generation of Vitamin D. It

The sun is the primary source of Vitamin D, and heliotherapy, or controlled exposure to sunlight, is one of the most effective ways to address Vitamin D deficiency. As a core naturopathic practice, it has long been used to treat rickets, tuberculosis and skin disorders by stimulating the body’s natural Vitamin D production, which is essential for bone health and immunity. Even today, it serves as a valuable complementary therapy, especially in regions with limited sunlight.

Source: <https://sansad.in/getFile/loksabhaquestions/annex/1712/AU2688.pdf?source=pqals> (Last accessed on July 24, 2025).

⁷ <https://www.homeopathycollegegoa.org/ministry-of-ayush/> (Last accessed on July 24, 2025).

⁸ https://ayush.gov.in/resources/pdf/education/IDY_2024_Report.pdf (Last accessed July 24, 2025).

⁹ <https://1pdf.in/icmr-dietary-guidelines-2024/> (Last accessed on July 24, 2025).

can also incorporate sun exposure in yoga sessions or events (like Yoga Day,¹⁰ etc.) conducted in open spaces across Ayush wellness centres, schools and colleges. This will help maximise Vitamin D absorption while promoting holistic health.

2.2 Launch Dietotherapy Campaigns Promoting Vitamin D-Enhancing Diets

The MoA can launch *Dietotherapy* campaigns to provide culturally grounded and practical solutions to improving Vitamin D intake through everyday food practices. Such campaigns can be developed to highlight the role of diet in traditional medical systems and its effectiveness in creating a “*Vitamin D Kuposhan Mukh Bharat*.” Ayurveda’s concept of *Ahara* (diet) can be aligned with these efforts by encouraging the use of traditional ingredients (like ghee¹¹) in cooking or daily meals to boost Vitamin D consumption or absorption. These messages can be effectively communicated through awareness campaigns that promote the nutritional value of traditional food practices.

Dietotherapy refers to the use of specific foods and nutrition as a therapeutic tool to prevent or manage diseases. It is a key component of the *Unani* system of medicine, where treatment is based on balancing body fluids through diets tailored to an individual’s temperament and health conditions.

Source: <https://sansad.in/getFile/loksabhaquestions/annex/1712/AU2688.pdf?source=pqals> (Last accessed on July 24, 2025).

2.3 Collaboration with other Ministries and Departments to Address Vitamin D Deficiency

The MoA has already partnered with ministries such as the Ministry of Health and Family Welfare (MoHFW) and the Ministry of Women and Child Development (MoWCD) to address some micronutrient deficiencies like anaemia by providing Ayurvedic formulations and dietary guidance, and supports research to tackle anaemia through traditional medical practices. A similar approach can be adopted to address Vitamin D deficiency.¹²

The MoA can also collaborate with the Ministry of Health and Family Welfare and the Food Safety and Standards Authority of India (FSSAI) to relaunch *Project Dhoop*,¹³ which incorporated school assembly timings with sun exposure, and expand the reach of such initiatives beyond school children to the general population (in colleges, offices, parks and community centres). Traditional medical practices like *surya namaskar* may be promoted. With clear participation guidelines and support from other relevant ministries and departments, the project can be scaled up for widespread implementation as a national public health initiative.

¹⁰ <https://yoga.ayush.gov.in/> (Last accessed on July 24, 2025).

¹¹ Kataria & Singh (2024).

¹² <https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=1656971> [Last accessed on July 24, 2025].

¹³ https://www.fssai.gov.in/upload/media/5b447973dc3f5FSSAI_News_Project_Dhoop_FinancialExpress_10_04_2018.p df [Last accessed on July 24, 2025].

2.4 Conduct Capacity Building of Ayush Health Workers to Identify and Mitigate Vitamin D Deficiency

It is essential to build the capacity of Ayush health workers to identify and address Vitamin D deficiency through targeted training and knowledge sharing. Modern medical professionals can support the training of Ayurvedic doctors, naturopaths and other Ayush practitioners by focusing on how to recognise deficiency symptoms, conduct basic screening and apply appropriate responses to address the deficiency. This can be achieved through the following:

- **Manuals:** Organisations like ANVKA Foundation, Global Alliance for Improved Nutrition (GAIN), etc., can create manuals to include structured training modules on identifying symptoms, food sources rich in Vitamin D, prevention of Vitamin D deficiency and basic testing methods. These can be made available in regional languages, both digitally and in print form.
- **Forums:** Dedicated forums can promote training and continuous engagement through expert talks, webinars and discussion sessions that connect Ayush and modern medical practitioners.
- **Certification Programmes:** Certification or refresher courses can be developed to offer structured learning and may be aligned with continuing education credits for Ayush professionals on identifying and addressing micronutrient deficiencies, including Vitamin D deficiency.

2.5 Develop Multi-stakeholder Partnerships for Twinning of Traditional Medicines with Modern Healthcare to Address Vitamin D Deficiency

The MoA can encourage multiple stakeholders (including industry, foundations and international organisations) to partner in areas like capacity building of health workers, promotion of *dietotherapy* and *heliotherapy*, and in research and innovation in traditional medicine. Modern healthcare centres twinned with traditional healthcare can work jointly to identify and address the deficiency. To begin with, the ministry can create a consultation forum for multiple stakeholders on the issue. A core committee can be created to take forward the outcome of the consultations.

2.6 Encouraging Research and Development through Existing Schemes and Institutions under MoA

Research institutions like the Central Council for Research in Ayurvedic Sciences (CCRAS) (for details see Box 1) under MoA, whose primary objective is to conduct research and development for prevention of diseases, can be encouraged to advance studies focused on developing traditional medical formulations that enhance Vitamin D metabolism and improve bone health. As it has already funded and published studies on diseases linked to

micronutrient deficiencies like Vitamin D, calcium, iron and zinc, the institution is well positioned to take a leading role in addressing Vitamin D deficiency through Ayurveda.

Box 1: The Central Council for Research in Ayurvedic Sciences (CCRAS)

CCRAS is an autonomous body of the Ministry of Ayush, Government of India. It is an apex body in India for the formulation, co-ordination, development and promotion of research on scientific lines in Ayurveda. Some of the objectives relating to research and development include:

1. The formulation of aims and patterns of research on scientific lines in Ayurvedic sciences.
2. To undertake research or other programmes in Ayurvedic sciences.
3. Assistance in research, the propagation of knowledge and experimental measures generally in connection with the causation, mode of spread and prevention of diseases.
4. To initiate, aid, develop and co-ordinate scientific research on different aspects, fundamental and applied, of Ayurvedic Sciences and to promote and assist research institutions in studying diseases, their prevention, causation and remedy.
5. To finance enquiries and research to further the objectives of the Central Council.

CCRAS has funded and published studies on conditions such as osteoporosis, anaemia and a weakened immune system that are closely linked to micronutrient deficiencies like Vitamin D, calcium, iron and zinc. These efforts demonstrate CCRAS's commitment to address the growing burden of micronutrient deficiency in India through traditional medicine-based research.

Source:

https://journals.lww.com/ijar/fulltext/2022/07000/contributions_to_research_and_development_by.4.aspx

(Last accessed on July 24, 2025).

Similarly, the AYURGYAN scheme (for details see Box 2) under MoA, which focuses on encouraging research and development in priority areas to validate claims and enhance the acceptability of Ayush approaches and drugs in the global market can include evidence-based traditional formulation for improving Vitamin D levels.

Box 2: The AYURGYAN Scheme

AYURGYAN Scheme is an umbrella initiative launched by the Ministry of Ayush to promote education, research and innovation across traditional systems of medicine, including Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa-Rigpa, and Homoeopathy. By merging existing education and research schemes, AYURGYAN aims to provide integrated support for academic activities, capacity building, training and research advancement. Research on anaemia and other nutritional disorders are also conducted under the scheme. This scheme can be used to do research to address Vitamin D deficiency.

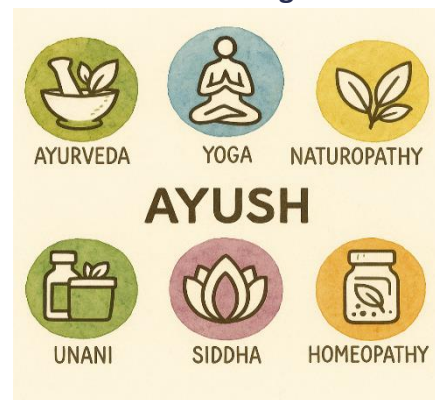
Source: <https://ayush.gov.in/resources/pdf/schemes/ayurgyan/ayurgyan.pdf> (Last accessed on July 24, 2025).

Companies producing traditional medicines such as Dabur, Himalaya, Patanjali and Rex Remedies can be engaged in research and development to create formulations that help address Vitamin D deficiency. For example, *Chyawanprash* is traditionally known for addressing Vitamin C deficiency.¹⁴ It can be modified to address Vitamin D deficiency as well. Similarly, other products can be developed to address Vitamin D insufficiency and manage related health issues like osteoporosis, weakened immunity and poor bone health. These public-private partnerships (PPP) can support product development, clinical trials and co-investment in formulation innovation, and contribute to public awareness campaigns.

3. Conclusion: Unlocking the Potential of Traditional Medicine in Combating Vitamin D Deficiency

India is a global leader in traditional medical practices, which can help address Vitamin D deficiency. If the above recommendations are taken by the MoA, India can leverage its rich legacy to respond to the emerging health challenge of Vitamin D deficiency.

By supporting the national campaigns for “*Vitamin D Kuposhan Mukh Bharat*,” the MoA can play a pivotal role in advancing culturally grounded solutions and contributing to the vision of a healthier nation. Vitamin D deficiency today is a global issue and by supporting this campaign and having targeted interventions to address the deficiency, the Ministry can showcase Indian traditional medical practices in global forums as a scientifically validated and holistic system of care.



¹⁴ Sharma et al., (2019).

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The ANVKA Foundation, a Section 8 registered non-governmental organization, is committed to fostering holistic community development and social transformation. Led by renowned surgeon and philanthropist Dr. Aashish Chaudhry, the foundation's initiatives span education, social welfare, cultural preservation, economic empowerment, medical relief and environmental protection, all aimed at uplifting underprivileged communities. Rooted in practical philosophy, art, aesthetics and psychoanalytic insights, ANVKA addresses critical societal issues such as education, gender equality, ecology, governance and public health, with a focus on both rural and urban areas. Collaborating with government and community-driven initiatives, ANVKA ensures comprehensive support across diverse needs.

At the heart of ANVKA's mission is the promotion of innovative education that integrates the socio-political, economic, spiritual and aesthetic dimensions. The foundation advocates the re-education of relationships, challenging patriarchal norms and fostering mutual respect and dignity to build a more equitable society. ANVKA works to dismantle oppressive social structures, focusing on creating a future grounded in love, understanding and equality. Additionally, the foundation promotes environmental sustainability and livelihoods that are ecologically responsible and socially fair, recognizing the interconnectedness of all life and striving for harmony between humans and the environment. Their efforts also include promoting active citizenship by encouraging individuals to engage in participatory democracy and take an active role in shaping their communities.

ANVKA's health interventions prioritize preventive care for vulnerable populations, emphasizing the importance of building a culture of compassionate community support. Through these initiatives, the foundation empowers communities to actively participate in shaping their futures, fostering social justice and promoting inclusivity. ANVKA's core areas of focus include education, gender equality, empowerment, environmental protection, community development, and health and well-being. Their innovative educational programs are grounded in lived experiences, integrating multiple dimensions, while their gender equality initiatives challenge societal norms to build respectful, equitable relationships. The foundation promotes livelihoods that are economically viable and environmentally sustainable, while also advocating for a harmonious relationship with nature.

Guided by values of holistic well-being, community engagement, social justice, sustainability and innovation, ANVKA strives to build a just, inclusive and thriving world for all. Together, we can create a brighter, more equitable future.



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