

An EVS Textbook – Cover to Cover

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Background

The National Policy on Education, 1986 emphasised the need to create awareness of environmental concerns by integrating it in the educational process at all stages of education and for all sections of society. The guiding principles of NCF 2005 emphasise on:

- connecting knowledge to life outside the school
- ensuring that learning is shifted away from rote methods
- enriching the curriculum to provide for overall development of children rather than remain textbook centric
- making examinations more flexible and integrated into classroom life
- nurturing an over-riding identity informed by caring concerns within the democratic polity of the country

In the Yashpal Report, *Learning without Burden*, the committee pointed out that learning at school cannot become a joyful experience unless we change our perception of the child as a receiver of knowledge and move beyond the convention of using textbooks as the basis for examination.

In this context there was a requirement not only to overhaul the textbooks on the above findings, but to relook at the curriculum, syllabus and the textbook to align with the aims of education. A new set of NCERT textbooks were written in the year 2005.

What is EVS?

The myth that natural resources are available in abundance and can be exploited for our economic growth was challenged long back by George Perkins in 1864. In his book *Man and Nature* published in 1864, Marsh brings forth his concerns about the idea of inexhaustibility of natural resources and breaks the myth of superabundance and spells out the need for reform.

The concern for environment in school education was brought in 1980's in India. This concern was

addressed through the textbooks of Environmental Studies. Krishna Kumar in his book *Education, Conflict and Peace* (Chapter 3, *Between Science and Scientific Temper*) talks about the block diagram of a factory showing tall and active smoke stacks which used to figure in textbooks of the 1960s with the caption, *Pilgrimages of Modern India*, now carries the revised caption, *Sources of Pollution*. He further adds that EVS materials attempt to develop the idea of co-habitation or an adjustment with nature not just with animals and plants, but even with physical objects, such as rivers, mountains, and the ocean. The value - premise underlying this idea is that all human acts need to be reviewed in terms of the impact they might have on living as well as non-living components of nature.

Before we start thinking about writing a textbook it is very important to ascertain clarity on aspects that would influence the character of the textbook. First, is a thorough understanding of the subject by the writer/s, second would be the cognitive level at which it is pitched and, third (and most important) that it is being written for the child: meaning it should not be a mini-encyclopedia.

If we look at the very first aspect, what do we know about EVS? In its full form it is interchangeably used as *Environmental Studies* or *Environmental Science* (for the sake of uniformity we will be using the former as prescribed by the NCERT). The second and third aspects are and should be taken care of in the syllabus that is created for the subject.

EVS is an amalgamation of insights from Social Science, Science and Environmental Education. It is a subject that is introduced at the Grade 3 in primary school and goes on till Grade 5. However, an effort is made to incorporate elements of EVS in Math and Language in Grades 1 and 2. Also, as most primary school curricula have worked on an integrated approach, EVS has proposed *themes* instead of *topics* such as to develop a connected and inter-related understanding (*EVS, NCERT Syllabus*). What is most significant here is that, a child looks at her/his surroundings as a whole,

absorbs events from immediate environment and does not *compartmentalise* experiences and information. If this approach is not taken then the EVS textbook would be topics from the individual subjects and would not address the holistic creation of knowledge in the child.

Looking at the way in which the subject EVS itself is envisaged it might be challenging to identify 'experts' in this field who could be potential writers/authors/contributors for an EVS textbook. What is desirable is that we put together members who have expertise in Social Science, Science and Environmental Education: teachers who have taught the subjects for a considerable period of time and also people with a background in pedagogy, gender studies, child development and curriculum studies (*EVS, NCERT Syllabus*). We will henceforth refer to these experts as the Textbook Committee (TC).

An EVS textbook - the road to joyful learning

Once a TC has been instituted, it is essential that the members work together in tandem as the main purpose is to create a resource material complete with all the aspects as mentioned earlier. One of the major tasks of the TC is to reach a consensus on the 'themes' that will drive the syllabus and subsequently the textbooks.

Once the themes are finalised, the herculean task of articulating the syllabus would be the next step. As a matter of fact one has to ascertain if the writers are familiar with the tenets of the *Aims of Education* as stated in the National Curriculum Framework 2005 (*NCF 2005*), Learning Outcomes of EVS and the EVS NCERT Syllabus as a ready references such that the syllabus and textbooks are in alignment with all these.

Once the syllabus is frozen, the writers would need to decide on the components of their textbook: the pedagogical approach that it would reflect, the assessment strategies, the kind of illustrations, activities, the inclusion of real life experiences of the child, making sure that the content of the textbook does not restrict EVS learning to the classroom. The other components which need equal inclusion are gender and social issues. Above all, the textbook (especially the Grade 5 textbook) must create a link of EVS to science and social science of Grade 6 such that the transition from EVS to these subjects is seamless.

Structure of an EVS textbook

The syllabus in place provides a firm foundation

on which the content of the textbook can be built. The chapters of the textbook that flow from the themes in the syllabus need to be well thought out, primarily keeping in mind the cognitive stage that we are addressing, whether Grades 3,4 or 5. Usually since the size, meaning the number of pages of a textbook, is restricted it would help that the writers are cognisant with this, although this should not in anyway restrict them from writing what is needed.

While the contents of the chapters are being drawn out there are certain sections of the EVS textbooks which need to be worked on simultaneously. These are:

1. Note to the Teachers and Parents - this could include the rationale of writing the textbook, the guiding principles that aligned the contents of the textbook to them, the approach to pedagogy in the textbook, kind of tasks included etc. The purpose of this note could be to provide an overview of the textbook to both teachers and parent.
2. Teacher's Page – This page could be a brief account of the contents in the chapters related to a theme and serve as a ready reckoner to the syllabus for the teacher using the textbook with the key concepts and objectives of each chapter included. The number of pages in the Teacher's Page could be at the discretion of the writers. For example, if the EVS theme is *Clothing and Shelter* and a chapter is addressing it, then the page might say the following:

Chapter A, intends to create an atmosphere for the child to appreciate the different kinds of clothes worn by people in _____ (name of the State for which the textbook is written) and to attain a sense of the fabrics used to make clothes. There is also a conscious attempt made to appreciate and respect the traditional knowledge of weavers and the contribution of the tailors towards the community. The activities included in the chapter are – picture compositions, matching sketches to certain objects, field visit (to a nearby tailor's shop) and experiments. An attempt has been made to sensitize the child by including acts of sharing and caring.

Another very important inclusion in the page could be the different EVS skills which are being addressed by the theme like observation, discussion, expression, explanation, classification, questioning, analysis, experimentation, concern for justice and equality and cooperation (*Source Book of Assessment in EVS, Classes 1 to 5*)

3. Teacher's Note – these could be included right through the textbook. The purpose of these notes is to guide the teacher in teaching the concept being discussed on a particular page. The content of the note could urge the teacher to read more and explore the topic under discussion

(The positioning of the above three could be the discretion of the writers)

4. Symbols/icons for activities – the use of symbols or icons to depict activities like *Write, Think, Work in Groups, Let's Make It* and so on will add to the visual appeal of the book as well as support the child in relating to the activities through them.

Illustrations form an integral part of any EVS textbook. An effort could be made to strike a balance between including sketches and images. The presence of sketches would encourage the child to connect pencil to paper and also nurture the artistic skills in a child. Also the illustrators need to be conscious of striking a balance in the sketches – with regard to gender representation. For example, if the picture is of a family, it is not necessary that the mother carries and takes care of the children. The father could also be shown sharing the chores. There could be relevant questions included to explore this concept.

Questions which are included in an EVS textbooks need to be more on the explorative side rather than questions which have either a Yes or a No answer. It would be ideal not to include End Text questions which attempt to gauge the rote learning skills in the child. For example, if the topic being discussed is Food and its optimal use and avoiding wastage – *What do you do with the uneaten food at home after a festival? What about your neighbours? How do they make use of the uneaten food? Visit two of your neighbours and ask these questions to the elder members in the family. Do you eat all the food that is there on your plate? If no, then what do you do with the uneaten food?*

An apt closure to textbook preparation would

be to orient the teachers who teach EVS to the new textbook. This would support the teacher to effectively take the content of the textbook to the learners. It would also provide the textbook writers insights into the way the books are being used in the classroom

Taking it forward!

How are these values of EVS taken forward?

The position paper of social science brings out the *normative concerns*, i.e. the social sciences carry a normative responsibility to create and widen the popular base for human values, namely freedom, trust, mutual respect and respect for diversity. Given this, social science teaching should aim at investing in children a critical moral and mental energy to make them alert to the social forces that threaten these values. Through the discussion of concerns such as threats to the environment, caste/class inequality, state repression, through an interdisciplinary approach, the textbook should stimulate the child's thought process and creativity.'

In The NCERT History textbook, *India and the Contemporary World I and II*, the theme *Livelihood, Economies and Societies* helps the child to look into the life of forest dwellers, peasants, pastoralists and how their lives got affected by certain laws and modernisation. It also brings in several other aspects like *Work, Life and Leisure*. The knowledge that the great cities of the world today, for instance, London and Paris, came into existence as an outcome of the Industrial Revolution helps the students to reflect on the problem of housing, the condition of marginalised groups, cleanliness and even the introduction of the London underground railways. Charles Dickens wrote in *Dombey and Son* about the massive destruction in the process of construction.

'Houses were knocked down: streets broken through and stopped; deep pits and trenches dug in the ground; enormous heaps of earth and clay thrown up;.....there were hundred thousand shapes and substances of incompleteness, widely mingled out their places, upside down ,burrowing in the earth....'

The process of urbanisation and the development of cities everywhere around the world came at the expense of ecology and the environment.19th century England cities like Leeds, Manchester could be seen emitting smoke from the factory chimneys. People started demanding for cleaner air and hence wanted control through legislation.

Calcutta (now Kolkata), too, faced the problem of air pollution and came out with the Bengal Smoke Nuisance Commission to combat industrial smoke.

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Supreme Court orders eviction of more than 10 lakh Adivasi and forest-dwelling families

The Supreme Court has ordered the eviction of more than 10 lakh families of Adivasis and other forest-dwellers from forestlands across 16 states.

The order came after the top court heard petitions challenging the validity of the Forest Rights Act on February 13. The petitioners had demanded that those whose claims over traditional forestlands are rejected under the new law should be evicted.

The chapter *Forest, Society and Colonialism* initiates students in the history of deforestation, plantation, the rise of commercial forestry, scientific forestry and the introduction of the Forest Act, Criminal Tribes Act introduced by the colonial rulers in India in India as well as in Africa how these laws affected the life of the people living in jungle. In Kenya the the grazing lands of the Masai Mara were turned into game reserves by the colonialists The Serengeti National Park, for instance, was created over

14,760 km. of Masai grazing land. Social and political life textbook brings up several issues from the EVS and discusses them on various aspects. For example –Water. It raises issues on the power equation related to water. Who gets water? Who receives what amount of water? Who gets what quality of water? Who fetches water/ etc.? . An excerpt from the chapter *Understanding Marginalisation*:

‘History textbook underlines the shaping of forest policies by colonial state and treats the issue like deforestation as manifestations of those policies. However for social and political life, India’s Adivasis shows that 79 per cent of the persons displaced from the states of Andhra Pradesh, Chhattisgarh, Orissa and Jharkhand are tribal. Huge tracts of their lands have also gone under the waters of hundreds of dams that have been built in independent India. In the North East, their lands remain highly militarised and war-torn.’

Students are given an issue that is happening at present in the contemporary India. This provides an opportunity for students to think critically about this conflict. Are the laws different from the colonial past? The recent verdict of the Supreme Court on the eviction of the adivasis from their homeland will definitely help students to think critically and become informed citizens.

Hence we find that the values, concerns, issues raised in the EVS textbook sees progress in a much more complex manner in social sciences.

References

National Curriculum Framework 2005

EVS NCERT Syllabus

Source Book of Assessment in EVS, Classes 1 to 5

India and the Contemporary World –I

India and the Contemporary World –II

Social and Political life- I and II

Man and Nature-George Perkins Marsh, edited by David Lowenthal

Education, Conflict and Peace-Krishna Kumar

Position Paper on Teaching of Social Sciences

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