

**ABSTRACT**  
**Central American and Mexican Video Archive (CAMVA)**

Since 1960, millions of rural people in Central America and Mexico have undergone radical transformations in their livelihoods and their culture. The spectacular growth of agroexport economies caused a significant ecological, social and cultural transformation of rural communities. Land loss and internal migration directly conditioned the development of social movements that, following a period of repression, led to civil wars that ripped apart the fabric of Central American rural societies, accelerating the pace of ecological and cultural change. Due to its unique political history, Mexico avoided the civil wars of the 1980s but nonetheless its rural inhabitants, in particular indigenous people, have experienced analogous forms of rapid and profound cultural change. Although many documents have been produced dealing with the conflicts in the 1980s, the more subtle yet crucially significant changes in peoples' lives have left relatively little documentary trace. Similarly, the linguistic and cultural transformations of the indigenous peoples of Mexico have not been documented adequately. Since millions of migrants from the Mesoamerican countryside moved recently to the United States, it is of vital national interest to achieve a high level of understanding of their cultural history. Before the rapidly deteriorating film and video archives of this vital region are irreversibly destroyed, Indiana University (IU) proposes to lead a collaborative project to create a digital record available to researchers, teachers, and students everywhere via the World Wide Web (WWW).

At Indiana University, The Central American and Mexican Video Archive (CAMVA) is sponsored by the Center for Latin American and Caribbean Studies (CLACS), the Center for the Study of History and Memory (CSHM), and the Digital Library Project/University Libraries (DLP). Based at IU, Project CAMVA is a consortium of three leading research institutes in Central America and Mexico: The Institute of Nicaraguan and Central American History (IHNCA, Nicaragua), The Museum of Words and Images (MUPI, El Salvador), and The Center for Advanced Research and Studies in Social Anthropology (CIESAS, Mexico). The CAMVA project aims to accomplish the following:

To create an audio-video digital archive from ethnographic and documentary recordings stored at physical archives in Mexico, El Salvador, and Nicaragua with other countries incorporated in subsequent phases.

To make this archive fully searchable and available to networked libraries for research and instruction.

To contribute to methodological development in digitizing, coding, and accessing audiovisual data, including the provision of searchable and retrievable interface, available over the web using bandwidth capability of internet2.

In the first phase of CAMVA, physical archives will be assessed through analysis by researchers at IU and our partner institutions. The second phase will convert the deteriorating audiovisual materials into a sustainable digital format. Preparation for content delivery will take place at IU with the participation of archivists from the partner institutions. When these archivists return home, they will continue digitizing and cataloguing in their respective countries. The final phase of Project CAMVA will focus on access to the digital video recordings and compiled bibliographic data created in earlier phases. Ultimately, our archivists and technologists will create a functioning digital repository and delivery system initially containing approximately 135 hours of film and 315 hours of video and accompanying metadata. Project CAMVA will rescue the irreplaceable cultural and historical record of Mesoamerica and exploit the WWW to create a publicly available database for research and instruction viewing.

## **1. Meeting the Purpose of the Authorizing Statute (20 points)**

The purpose of Project CAMVA is to create a digital archive from ethno-historical and linguistic audio-visual materials currently stored at physical archives in Central America (particularly El Salvador and Nicaragua) and Mexico. The digital editions will be integrated into existing collections of Latin American materials in the United States, available online through the World Wide Web (WWW), and encoded within Library of Congress search standards. Selection of materials will be conducted in collaboration with our partner institutions following criteria of importance based on content, regional representation, and significance to our target audiences of research scholars, classroom instructors, and students.

Project CAMVA will employ digital technologies to preserve raw cultural and historical data in danger of deterioration, acting as a gateway through which scholars, teachers and students in the United States can share the rich, varied, and currently inaccessible media portraying the ethno-historical worlds of Mexico and Central America. This project will strengthen pre-existing international and inter-institutional collaboration and scholarly exchange between the United States and partner nations and institutions of the Americas. Furthermore, it builds upon and will contribute to Indiana University's exceptional archival collections of Latin American oral history, ethnomusicology, and digital library collections, providing long-term storage and accessibility to researchers, teachers, and students across several fields. *a) Describe the objectives of the project.*

The specific objectives of the project include the following: To identify, preserve and retrieve regionally representative historical, socio-cultural and ethno-linguistic materials from physical archives in Central America and Mexico that are inaccessible in the USA. The audiovisual materials Project CAMVA has targeted relate to contemporary socio-cultural movements and changes in the daily lives of individuals in rural regions of Central America and Mexico. These sources provide local perspectives on such transformations that are expressed in a variety of media formats including films, unedited video footage and audiotapes. Perspectives from interviews with academic scholars, governmental and NGO agencies, and local media institutions are all available. Moreover, these materials present information in a variety of endangered languages, such as those spoken in the Oaxaca, Veracruz and Tabasco states of Mexico. They provide rich information sources for the understanding of the recent socio-cultural and political transformations of Mesoamerican regions, and consist of important and rare material for research projects and classroom activities within a variety of disciplines in the humanities and social sciences. These archival materials are currently stored at the offices of our partner institutions: the History Institute (INHCA) at the Central American University (UCA) in Managua, Nicaragua, the Museum of the Word and Images (MUPI) in San Salvador, El Salvador, and in the Center for Advanced Research and Studies in Social Anthropology (CIESAS) with its main campus in Mexico City and six other sites throughout the country. Our team at Indiana University has on-going and active collaboration with each one of these institutions and affiliated researchers. For example, our collaboration with Nicaragua dates back over a decade. All institutes are advanced in education and research with international repute. However, while well organized, due to precarious environmental conditions, these materials are deteriorating and in danger of being lost.

**To support collaborative projects of indexing and cataloging materials published or distributed outside the United States.** Project CAMVA will also work with librarians and archivists in Central America and Mexico to catalog and index their audio-video files, allowing its mission to continue to expand its research and teaching agenda. We will work with video professionals in Central America and Mexico to digitize selected films and video recordings, based upon standards and recommended best practices. The preservation and dissemination of the audio-video archives of Nicaragua, El Salvador and Mexico will strengthen our collaborator

institutions, providing state-of-the-art techniques to advance a new archival movement in the region. Furthermore, it will contribute to a new generation of information conversion, coding and accessibility, enhancing the Latin American archives of Indiana University and making it available through well established referencing and searching mechanisms.

**To develop and implement interactive and user-friendly web-based methods of disseminating up-to date information.** Once selected, digitized, and indexed, the database will be made public to the academic community via the WWW, and will enter the network of libraries and Latin American centers at universities across the United States. The indexing and coding of these materials will be bilingual (Spanish and English). Project CAMVA will benefit in this endeavor from the extensive experience of the Indiana University Digital Library Program in mounting large digital collections on the WWW, and providing sustained support for network access to these collections. It will also benefit from the on-going development of EVIA (Ethnomusicological Video for Instruction and Analysis Digital Archive) at Indiana University, which has demonstrated an innovative approach to digital archival technologies targeting research and teaching audiences.

**To develop instructional material for educational settings that address cultural, geographic and linguistic issues in Central America and Mexico.** These materials will provide teachers, students and scholars with audio-video material representing Spanish and endangered indigenous languages. The materials will create enormous potential for their use in long-distance learning facilities. With the ability to be able to listen to actual conversations between native speakers while visually processing their cultural and political contexts, students will have access to a deeper cultural experience in the classroom. To see and hear oral and corporeal performances by local people in their natural as well as constructed environments will enable American students with heretofore unrealized socio-cultural understanding of the languages and peoples they study.

*b) Describe the extent to which these objectives further the statutory provisions.*

The objectives of Project CAMVA are *fully consistent* with and fulfill the requirements of the Section 606 of the Title VI of the Higher Education Act, 1965 (as amended by the Educational Amendments of 1998). As outlined above, Project CAMVA facilitates access to and does the following: preserves foreign information resources; supports collaborative indexing, cataloging, and other bibliographic access for scholars to important research materials published and housed outside the United States; develops new means for sharing electronic access to international data sources; and assists teachers in acquiring materials suitable for instruction in marginalized and endangered languages of Mexico and Central America.

## **2. Extent of Need for the Project (10 points)**

*a) Describe the magnitude of the need for the services to be provided and the activities to be carried out by the proposed project.*

Project CAMVA will recover materials vital to the study of Central America and Mexico. There are compelling historical reasons to group those regions together in this proposal. During the thousand years preceding the Spanish Conquest, Mexico and Central America formed a cultural region known as *Mesoamerica*, linked by common languages and religious practices. Following the Conquest, the region remained tied, albeit less directly, through a common language, government, and religion. During the 20<sup>th</sup> century, Mexico and Central America became more closely linked politically and culturally. Ironically, at the dawn of a new millennium, with an estimated 13 million immigrants from Mesoamerica often settling in the same neighborhoods in the United States, not only are they forging new bonds, but as a group they are poised to make a major impact on all

aspects of life in the United States. In addition to emphasis on historical connections, grouping Mexico and Central America within Project CAMVA will facilitate an important comparative framework for their contemporary cultural histories, marked by sharply distinctive characteristics of the individual countries constituting Mesoamerica.

Long before the mass immigration, Mexico and Central America were of vital importance to the strategic security concerns of the United States. Such an assessment has been commonplace since the 1890s and with a current population of 145 million, the region is no less important today. Yet, despite our mutual strategic interests and geographic proximity, cultural misunderstandings have long plagued our relations, often with negative consequences for Mesoamerican peoples and for the international figure of the United States. At times based on flawed assumptions about local political cultures, the United States has directly intervened in the region's affairs (particularly in Central America), on several occasions with dramatic consequences for inter-American relations. Starting with the Nicaraguan intervention of 1912, and culminating with the civil wars in Nicaragua and El Salvador of the 1980s, the United States has consistently underestimated the effect of its own presence on the politics and culture of the region and on the long-term consequences of its actions.

Today this region is plagued by extreme poverty, if no longer by the political convulsions of the past. The ominous growth of lawlessness, ranging from every-day delinquency to formidable drug cartels, is of serious concern to Mesoamerican and U.S. citizens alike. Moreover, chronic poverty in the region contributes directly to the mass immigrations to the United States. As millions of migrants cross the border, the United States is still ill-equipped to understand their lives, cultures and needs. **The principal aim of this project is to address this profound need: to better understand the recent social-cultural histories of Central America and Mexico in order to gain a better appreciation of our new neighbors north of the border as well as those who remain in their respective countries.**

This project purports to select audio-visual material that will otherwise likely perish. Those materials include large amounts of film and video that offer vital insights into the cultural history of the region's rural peoples who, despite massive urban migration, still account for approximately 35 percent of the population. It is highly important to recognize that the overwhelming majority of the rural people of Central America and Mexico have not left written records and, therefore, these audio-visual archives can play a crucial role in allowing scholars and policy makers to understand the cultural roots of the new immigrants, their present cultural universe, and their evolving worldviews and practices. Project CAMVA will take a major step toward meeting this need.

The main activity of Project CAMVA is to create a regional audio-visual archive where no other exists, even at the national level. The collected, processed, and distributed materials will allow students, scholars and policy makers to create cultural/historical benchmarks against which historical comparisons and contemporary studies can be measured. Specifically, the project in Mexico will focus on videos and raw footage collected through years of anthropological studies at CIESAS dealing with the indigenous peoples, mainly of Oaxaca, Veracruz, and Chiapas. In Nicaragua, Project CAMVA will also work with IHNCA in preserving and making accessible rapidly deteriorating videos, films, and raw video footage stored at the Universidad Centroamericana, the Centro de Historia Militar (Center of Military History), as well as footage from television companies. Most of the videos and television footage deal with rural conditions and conflict during the 1970s and 1980s. Finally, in El Salvador, Project CAMVA will select and process materials from the vast MUPI collection, containing over sixty reels of film, dealing in large part with the rural-based guerrilla struggle of the 1970s and 1980s among the eastern Salvadoran peasantry of mestizo, indigenous, and hybrid identities. Similarly, it contains much newsreel footage from the 1980s. MUPI also has access to the "Massi" collection of rare film footage from earlier in the century, a veritable treasure of ethnographic material that is on the verge of complete destruction. In fact, all collections, rich in cultural and historical material, are imminently

perishable, which forms the single, most compelling rationale for the project.

Since the 1960s Latin American Studies has emerged as a major interdisciplinary scholarly field in the United States. Virtually all major universities have programs in this field, many of which award undergraduate and graduate degrees. Within Latin American Studies, Central America and Mexico occupy a special place for scholarship in history, anthropology, linguistics, literature, political science, and sociology. Students and scholars from all of these fields will benefit enormously from the consultation of these ethnographic, ethno-linguistic and historical materials that would represent a sizeable part of all extant archives, which, in turn, represent the direct expression of the rural peoples of Central America and Mexico.

Just as Mexico and Central America play a key role in the production of scholarship within Latin American studies, so too are they key teaching subjects at all levels of our educational system. Project CAMVA will greatly enhance all levels of teaching about the region in most disciplines within the social sciences and the humanities. Moreover, it will serve as an important teaching tool both of Spanish and of some lesser-taught indigenous languages.

### **3. Significance (12 points)**

*a) Describe the national significance of the proposed project.*

The national significance of Project CAMVA project derives from the vital strategic importance of Mexico and Central America to the United States and the presence in our country of approximately 13 million immigrants from the region. Beyond the crucial issues of geographic proximity and immigration, Mexico has become the United States' major trading partner. Central America also remains important to the US for several reasons. Although the civil wars of the 1980s are over, their political-cultural legacies are still present in the region, with the former armed insurgents within each nation still in combat within the electoral arenas. Moreover, the war-ravaged and economically debilitated civil societies are prey to drug smugglers and their allies. Economic and political stability in the region are of vital interest to U.S. policymakers, particularly in the development of sound, multi-lateral economic and anti-drug initiatives.

As mentioned in the section above, understanding cultural transformations of the Mexican and Central American populations is of fundamental value in any serious attempt to understand the region's population or the origins of the immigrants in the United States. Project CAMVA will play a vital role in providing deep knowledge about this strategically important region. Project CAMVA will build upon the Oral and Visual Archive of the Center for the Study of History and Memory (CSHM) at Indiana University in order to create the nation's (and indeed the world's) first accessible audio-visual archive of Mexico and Central America. This archive will allow students and scholars to visualize and analyze cultural, social, and economic change among the rural peoples of the region over a period of more than thirty years.

The archive will be of national importance for several reasons. First, it will become a key site for ethnographic and historical research on rural populations of the region as well as on the cultural background of US immigrants. The accessibility of large amounts of previously unseen raw footage, rare films and videos will make this archive absolutely vital for researchers and students. Scholarly research in social scientific fields as well as the humanities, whether on a local, national, or comparative level will be greatly enhanced through access to these materials, heretofore either inaccessible or of difficult access. Second, CAMVA will become the preeminent research site for the study of ethnographic and other forms of documentary film in Mexico and Central America. Third, the project will make a major national contribution to area studies. It will allow K-12 and college teachers to create their own visual ethnographic, linguistic, and historical presentations for classroom use. Similarly, it will greatly aid undergraduate and graduate students both in their

research and in their classroom presentations. Finally, Project CAMVA will promote collaborative research and scholarly exchange about visual media, cultural history, ethnography, and advanced computer technology across national and disciplinary boundaries.

*b) Describe the potential contribution of the project to the development and advancement of theory, knowledge, and practice in the field of study.*

Project CAMVA will make significant contributions to theory, knowledge, and practice in several fields. Through the interdisciplinary dialogue that will be part of the selection process for the materials, the project will make theoretical contributions to the study of the relationship of visual documentary material and the production of knowledge. Methodological dialogues about the use of visual media as representations of historical reality will be a precondition of the selection process. That dialogue will take place through international and national workshops budgeted in this proposal in which experts from all four institutions will take place. Second, again through the preliminary yet exhaustive selection process, advancements will be made in the field of oral history and collective memory. Besides management decisions for material selection and coding, and establishing benchmarks for the project, the workshops will focus on how to create a democratic field in which collective memories, for example about the 1980s, might coincide and compete. As suggested above, Project CAMVA will produce unique, new forms of deep ethnographic, cultural, historical and comparative knowledge about Central American and Mexican rural populations.

Moreover, Project CAMVA will produce remarkable innovations in the field of digitization and Internet transmission. The creation of large Internet-accessible digital video libraries is a relatively new concept. Projects such as the EVIA Digital Archive have begun to demonstrate successful approaches to the high-end digital preservation of video, but have not yet engaged in digital video creation on a large scale. Meanwhile, video collections around the world are rapidly deteriorating. Project CAMVA will utilize and evaluate a "middle ground" approach to video digitization, seeking to preserve the information content of deteriorating video collections while improving access to these collections in a cost-effective manner through a combination of Internet streaming and DVD technologies.

*c) Describe the likely utility and high quality of the products that will result from the proposed project, including the potential for their being used effectively in a variety of settings.*

The archives made available through Project CAMVA lend themselves to rich qualitative analyses, especially when used in conjunction with computer software such as N4 Classic or ATLAS.ti. Software packages such as these offer powerful workbenches for the quality analysis of large bodies of textual, graphical, audio and video data. They offer a variety of sophisticated tools for accomplishing the tasks associated with any systematic approach to "soft" data. These archives might also be searched and analyzed using complex quantitative methods. The permanent nature of these files will allow us to essentially "freeze" unique historical and cultural moments that might be re-analyzed applying future methodological and technological innovations. Within a few years and for many years to come, the CAMVA video archive will provide searchable, yet unstructured raw data, for countless research projects across several disciplinary fields. Researchers and students ranging from political science and history to geography and anthropology will find processed and unprocessed data for investigation. As CAMVA is integrated into Indiana University's digital library program and its extensive Latin American collection, it will be searchable through existing and widely used university catalogs, as well as through open web-search engines. CAMVA will connect to Latin American centers across US universities.

At the instructional level, CAMVA will provide rich windows into the social worlds of Central America and Mexico, which primary, secondary and university-level instructors can utilize

in the classroom. A primary school teacher, for example, might link to a video on the Mayan communities of Chiapas during a social studies unit on indigenous communities, providing students with a more immediate and concrete understanding of our neighbors to the south. Secondary school Spanish and history teachers will be able to quickly access videos from the particular region that he/she is discussing, allowing students the opportunity to make direct connections between language and culture, thereby deepening cross-cultural understanding pursuant of Spanish language skills. College and university instructors will use CAMVA to provide their students with authentic language and cultural practices in context. A broader impact of CAMVA will be to provide material in a widely accessible format for a growing demand for long-distance college level web-courses.

*d) Describe the extent to which the results of the proposed project are to be disseminated in ways that will enable others to use the information, products, or strategies.*

Project CAMVA will also make a substantial technological contribution to the emerging field of digital video, including conversion and dissemination. This project positions itself on the cutting edge of information technology. It will build on the knowledge collected from similar efforts occurring across the nation at research universities, and in turn, will contribute to this knowledge. The chief contribution will be to the emerging field of digital video archiving and retrieving strategies. In ten years time, digital video archives will be common and standards will exist for their creation and maintenance. Today, however, digital video technology is in the initial stages of development. Project CAMVA seeks to develop an architecture that can efficiently and accurately store and retrieve digital video. Our architecture will then be available for use as a model for similar efforts in other fields.

Project CAMVA will also contribute to the field of metadata and archival coding standards. The project will make use of the emerging METS (Metadata Encoding and Transmission Standard) format, developed as a project of the Digital Library Federation and maintained by the Library of Congress, for encapsulating descriptive, structural, and administrative metadata, and MODS (Metadata Object Description Schema), developed and maintained by the Library of Congress, for coding the descriptive information for each digital video object. After digitization, METS documents will be generated for each video recording containing MODS descriptive metadata records for the entire video recording and, in some cases, for segments of the video. Indiana University's Digital Library Program has developed a software tool that simplifies this process of metadata creation for digital video files, and Project CAMVA will build upon this approach for its use. The METS and MODS standards are both based on XML schemas, and Project CAMVA will take advantage of the myriad of new, powerful XML manipulation tools (XML parsers, editors, etc) to create a flexible, user-friendly method for creating digital video metadata.

A high-quality digital master copy of each video will be archived on IU's mass storage system, while compressed versions of these "master" copies will be made accessible via streaming to researchers, teachers and others. The project also foresees the use of DVD media and emerging storage technology to be incorporated.

*e) Describe the extent to which the size of the potential target audiences gives the projects national significance.*

The final phase of Project CAMVA will make the database publicly available online for user viewing, via the WWW and searchable through the library system of U.S. universities as well as open search engines. In this way, audio-video streaming of historic cultural and linguistic transformations in Central America and Mexico will be available to the desktop computers of researchers around the world and to the classrooms of networked teachers. DVD copies of all work will be deposited in the research institutions in Mesoamerica. In addition, archivists in Central America and Mexico will be trained to digitize and code their audio-video files so that CAMVA will

continue to expand as a permanent resource for scholars and teachers.

During each phase of Project CAMVA, our plan will be available to other research institutions around the world. An effort such as this one has no hope of success without the collaboration and knowledge collected from similar projects. Project CAMVA complements the work of other research organizations seeking to encourage and facilitate worldwide comparative studies of human behavior, society, and culture, such as The Human Relations Area Files, Inc. (HRAF). HRAF has demonstrated success in mounting digital collections, and has created an online teaching tool known as *Teaching eHRAF* that consolidates the most relevant digital information to make their archives more useful to educators.

Other institutions experimenting with mass storage, streaming video, digital archiving, and digital encoding will also be consulted, and our findings, along with our current plan for creation of the archive, will be made available on the project's website. In this way, Project CAMVA seeks to link itself to the web community of institutions and individuals interested in developing digital archive technology.

#### **4. Quality of the Project Design (12 points)**

*a) Describe how project represents exceptional approach.*

CAMVA takes an approach to research and development that is based on discussion, development, feedback, adjustment, and implementation. Research and development will occur on two levels. Before any technology is developed, appropriate media and appropriate design interfaces for the archive will be researched and selected. This research will be accomplished in preliminary workshops with members from our international partner institutions. The first workshop will discuss criteria and priorities for material selection, coding standards and levels of coding for different groups of material, communication and data transmission structure, and a calendar of benchmarks for accomplishments, testing, and implementation. CAMVA participants will pay special attention to the establishment of intellectual property rights standards, a particularly important stage in the selection and dissemination of material. The formation and composition of an advisory board for CAMVA will also be discussed and proposed. After the preliminary workshops, yearly workshops will keep all collaborators up to date on the progress of the architecture, provide time to discuss metadata coding standards and establish firm standards for the content of material to be digitized.

Research and development for this project has been ongoing for some time due to the project personnel's extensive research interests and contacts in the partner countries. Technological research and development will be essential to the creation of an architectural framework with sufficient elasticity to provide for the future. CAMVA is fortunate to be able to draw on the expertise of the Indiana University Digital Library Program (DLP). This program has extensive experience in mounting large digital collections on the WWW and providing sustained support for network access to these collections. The DLP, having created several highly successful digital archives, brings an enormous amount of research and knowledge to bear on this project. This knowledge represents years of technological advances, and it makes the DLP invaluable to this project. Furthermore, the DLP has collaborated with other universities in projects such as the Ethnomusicological Video for Instruction and Analysis Digital Archive (EVIA).

*b) Project design meets needs of target audience.*

By making the materials available through the internet we will meet the needs of the target audiences of students, k-12 teachers, college teachers, and scholars.

*c) Describe a coherent, sustained program of research and development.*

The following chart describes a coherent, sustained program of research and development:

<b>The CAMVA architecture:</b>	
1. Storage mechanism:	a. IU's Mass Data Storage System (MDSS) will archive large, uncompressed master copies. b. IU's streaming server facilitates online-browsing of compressed video. c. Database design consolidates compressed video clips, metadata, and master copies together in one location. d. Database will be extensible to accommodate future additions and new types of media.
2. Digitization:	a. The data conforms to firmly established digitization standards established before any digitization occurs. b. Methods specified for digitizing both film and video conform to archival practices, insuring protection of the originals and high-quality digital surrogates. c. Careful selection of vendors for digitization, with stringent quality control procedures.
3. Interface:	a. Initial version allows for web-based retrieval and viewing of archive materials. b. Designed with the cooperation of intellectual property specialists. c. Future versions allow remote researchers to enter metadata and upload new data to collection.

**Figure 1**

*d. Project designed to build capacity and endure beyond grant.*

The framework is already in place to continue this project into the future. IU's library is beginning to incorporate digital media into its collections, and eventually our archive will be incorporated into this existing framework. Thus, the CAMVA architecture will be designed with this ultimate goal in mind. All digitization standards, the metadata codes added to the media, as well as the interface will all be designed for future incorporation into a centralized IU Digital Library. This project is the first step in a long process of using technology to make Latin American resources available to educational institutions in the US and abroad. In summary, the experience and critical mass at Indiana University on content (e.g., oral history, ethnomusicology) and technology (e.g., digital archive) contributes to make this project part of an on-going and long-term commitment to developing research, information science and technology.

**5. Quality of the Project Personnel (8 points)**

*a) Do the qualifications of the participants meet the needs of the project?*

The project co-directors and principal investigators are qualified and have ample collective experience to meet the needs of the project. This highly-trained interdisciplinary group has experience working in areas related to the project and has an extensive track record of working collaboratively.

**Jeffrey L. Gould** will serve as co-director of the project and principal inter-site liaison, devoting 15 percent of his time to the project. Gould is a Rudy Professor of History and has served

as the Director of the Center for Latin American and Caribbean Studies since 1995. As Director, Gould has promoted extensive scholarly and student exchanges with all collaborating institutions: CIESAS, IHNCA, and MUPI. Moreover, he has developed an expertise in documentary film. Gould co-directed and co-produced a 53-minute award-winning documentary, “Scars of Memory: El Salvador, 1932” with Carlos Henríquez Consalvi (MUPI director). ♦Gould’s scholarship deals with history of rural populations in political violence in Central America. He authored *To Lead as Equals: Rural Protest and Political Consciousness in Chinandega, Nicaragua, 1912-1979* (1990); *To Die in This Way: Nicaraguan Indian Communities and the Myth of Mestizaje, 1880- 1965* (1998) and was co-editor of *Memorias de Mestizaje: la política cultural en América Central desde 1900* (2004). In 2002, he was awarded a John Simon Guggenheim fellowship to write a book on events and memories surrounding the insurrection and massacres in El Salvador in 1932.

**Kristine Brancolini** is Director of the Indiana University Digital Library Program ([www.dlib.indiana.edu](http://www.dlib.indiana.edu)), which was established in 1997, and librarian for the David S. Bradley Film Collection, a special collection. She will oversee all technological aspects of the project. Prior to her work in the Digital Library Program, she was the Head of Media and Reserve Services and Librarian for Film Studies. She recently completed a major digital project, *Charles W. Cushman: The Curiosity of a Man, the Pictures of a Lifetime*, (<http://www.dlib.indiana.edu/collections/cushman/>) funded by the Institute for Museum and Library Services (IMLS). She is director and co-principal investigator on two new IMLS grants that began in October 2004. She is also investigator on the intellectual property team for a 4year music project funded by the National Science Foundation ( <http://www.dml.indiana.edu>), VARIATIONS2: The IU Digital Music Library. She was a member of the intellectual property team during the planning phase of the EVIA (Ethnomusicological Video for Instruction and Analysis) Digital Archive.

Chancellor’s Professor of History **John Bodnar** is the Co-Director of the Center for the Study of History and Memory and the Chair of the History of the Department. His world-renowned scholarship has earned him numerous awards, including a Guggenheim Fellowship. He is the author of nine books that address issues of memory and oral history. Most recently, he has developed an expertise in film: his most recent book is *Blue-Collar Hollywood: Liberalism, Democracy, and Working People in American Film*. Bodnar will bring decades of administrative and scholarly experience to the project.

Bernardo Mendel Professor of Latin American History and Culture **Daniel James** is codirector of the Center for the Study of History and Memory (CSHM). He is one of the foremost experts on oral history, visual arts, and memory in Latin America. His most recent book is recognized as one of the most important works in field of memory in Latin America: *Dona Maria’s Story: Life- History, Memory and Political Identity*. He has also published on visual media topics in Latin America.

b) *Do the qualifications of key personal meet the needs of the project?*

**Carlos Henríquez Consalvi** is the founder of the Museo de la Palabra y la Imágen (MUPI), a museum which offers cultural and historical exhibitions throughout the country. Major exhibitions include “Images of War and Peace” and “Kabulkan, the Fury of the Gods (Earthquakes in Salvadoran History).” Henriquez is also the founder of the Historical Audio Visual Archive of MUPI. He obtained a degree in journalism from the Central University of Venezuela and worked for many years a radio producer. He has published several works of fiction and non-fiction, most notably the testimony, *La Terquedad del Izote*. He also worked with Gould on “Scars of Memory.” He will coordinate the project in El Salvador.

Since 1990, **Margarita Vannini** has served as director of the Instituto de Historia de Nicaragua y de Centroamérica (IHNCA), of the Universidad Centroamericana. Under her guidance, the IHNCA has become the premier historical research institution in the country and a library/archive that draws users from all over the world. Vannini has supervised the digitization of 43,000 library and archival references. From 2000-2004, IHNCA and CLACS (IU) worked on a collaborative research project studying land rights, the environment, and indigenous communities. For the past two years, Vannini has been instrumental in promoting a project that would create a Central American Video Archive; CAMVA would work together with that project and thus Vannini is ideally suited to serve as the project coordinator in Nicaragua. She will coordinate the project at her institution.

**Dr. Ernesto Isunza** recently became the Director of Scientific Policy and Training of CIESAS after serving for a year as the Director of CIESAS-Golfo. He obtained a doctorate in 1998, with a prize-winning doctoral thesis that proposed a new model of socio-political theory and its applicability to contemporary Mexico. In his position as Director of Scientific Policy, he will be directly responsible for coordinating CAMVA at CIESAS.

The project will also benefit from the active participation of research and technical personnel in El Salvador, Mexico and Nicaragua. In El Salvador, **Georgina Hernández** (MUPI) will play a key role in CAMVA. She has strong academic training, which will be useful in different aspects of the project. She obtained an MA in Library Studies from the University of Barcelona, a Diploma in Archival Conservation from ICCOM in Brazil and a Licenciatura in Anthropology. **Ricardo Barahona** (MUPI) will function as the technical coordinator in El Salvador. Barahona has much experience working in film, video, television, and the internet.

In Mexico, **Dr. Mariano Baez** will play a major role in the project. Baez served a director of CIESAS-Golfo for four years and coordinated activities relevant to this project, including the "Permanent Seminar on Living Sources, Identity, Tradition, and Modernity in the Rural World." He also directed and produced a documentary film, "Corazón Indígena" (Indigenous Heart), about the experiences of indigenous students at the Universidad Veracruzana. **Ricardo Enciso Guerrero**, Vice Director of Informatics Policy and Training at CIESAS, will serve as the technical coordinator in Mexico. He previously worked as a computer specialist and project coordinator for the state of Querétaro and earlier as project coordinator for IBM in Mexico.

In Nicaragua, **Claudio Gordillo** (IHNCA Archive) will play a fundamental role in shaping the project. Among Gordillo's numerous talents, she is an award-winning photographer whose work has been exhibited throughout the world. She has been awarded the First National Prize in Photography twice and in 1994 she was awarded a John Simon Guggenheim Memorial fellowship. **Saulo Daniel León** will serve as technical coordinator of the project in Nicaragua. He is Director of Informatics at the IHNCA and has served in the position since 1993. He was instrumental in digitizing the catalogue of the IHNCA Archive. **Eva Torres** has been head of the IHNCA's Archive since 1999 and similarly has advanced computer and librarian skills. She will play a vital role in the project.

Two IU specialists will play vitally important roles in the project. **Dr. Barbara Truesdell** is the Assistant Director of the Center for the Study of History and Memory. In that capacity, she has been instrumental in creating an Online Database for the Center's vast oral history archive. She has also published extensively in areas related to folklore and oral history. **Jon W. Dunn** serves as the Associate Director for Technology, IU Digital Library Program, and Senior Technology Advisor, IU Libraries. He is also Technical Investigator for the EVIA project. IU faculty members will serve on the CAMVA Advisory Board including **Richard Bauman, Hilary Kahn, Eden Medina, Armando Razo, and Daniel Suslak** (see CVs for relevant expertise). *c) Do the qualifications of consultants and meet the needs of the project?*

Each consultant will be vetted first by the regional committees made up of the coordinators and key personnel listed above. The Project Directors and the Advisory Board will also approve the consultants to the project. IU technical coordinator (to be appointed) will also play a key role in approving consultant selections. *d) Inclusion of underrepresented groups.*

All programs at IU are characterized by a diverse faculty. IU Offices of Affirmative Action enforce non-discriminatory policies and procedures with regard to women, minorities, individuals with disabilities and Vietnam-era veterans. The diversity of the faculty at IU is reflected in its recent hires. Of 19 recent IU Latin Americanist hires affiliated to CLACS, 12 are women and 11 are minorities. The CLACS M.A. program has long been recognized as one of the most diverse units on campus.

## **6. Quality of Project Services (6 points)**

*a) Describe up to date knowledge from research and effective practices.* Project CAMVA is in a unique position to take advantage of IU's research and technological knowledge and to play a leading role in the next generation of web-interfaced technologies. The project's collaboration with the Digital Library Program (DLP), a group of librarians and technologists with software developers and specialists in high-tech archival and retrieval strategies, is significant in this regard. The DLP will also bring to Project CAMVA the benefit of their experience with the EVIA Digital Archive project, characterized by its innovative approach to digital video archiving and access technologies. For the EVIA project, a software package was developed to facilitate the addition of metadata to digitized video clips. This generated metadata conforms to the METS and MODS standards mentioned in section three of this proposal. During its first year, CAMVA will adapt this tool to be used for the purpose of creating metadata for its collections.

*b) Describe use of advanced technological techniques.* The DLP also provides a body of knowledge regarding interface design and retrieval strategies, particular in relation to the EVIA project. For that project, the DLP is developing a Java web application that allows users to intelligently search and browse the collection through its METS/MODS-based metadata using controlled vocabulary thesauri to increase search recall. This enables EVIA users to consolidate a number of different types of information into one interface. For example, images can be associated with audio clips and text documents. The knowledge gained from this project will be invaluable to CAMVA as we develop a user interface and web site for access to our collections.

The challenge for this project and its potential for contribution to technological knowledge lie in its focus on digital video preservation and dissemination. Project CAMVA will employ IU's technological strengths and digital video project expertise in the design of a flexible architecture. It will also provide a logical process for transferring video in older formats to a high-quality digital format that will be sustainable into the future. While this prospect is difficult and time-consuming, CAMVA has the technological resources to accomplish this goal and advance the research horizons of digital video preservation, a subject that surely will receive a great deal of attention in the coming years.

*c) Strategies to Ensure Equal Access.* As noted in section five, CLACS and IU have strong records in the hiring of underrepresented groups. In addition, the Project CAMVA Advisory Board includes two Hispanics and two women. The Advisory Board and the Project Directors will ensure that in the search for the Project Coordinator, the Programmer, and the Catalogue Specialist, we will strive to create a pool in which underrepresented minorities form a significant proportion of the applicants.

## **7. Adequacy of Resources (12 points)**

*a) Is cost reasonable in relation to projects objectives, design, and potential significance?*

By building upon the video digitizing and encoding technologies developed at Indiana University by EVIA and the Digital Library Program, Project CAMVA will deliver significant new resources for each dollar spent. The vast infrastructure and technical expertise available at Indiana University will allow Project CAMVA to bypass much of the painstaking initial construction that other such projects must conduct. Furthermore, our partner institutions in Central America and Mexico will be directly involved with the selection, digitization, encoding, and cataloguing. This will lower labor costs and permit us to concentrate on the creation of comprehensive digital archives. Project CAMVA wields the best methodological resources and technology available to develop the world's only digital video archive of Mexico and Central America. The initial investment of federal funds in Project CAMVA will build upon decades of local investment at Indiana University in the fields of information science, Latin American Studies, Oral History and Memory studies, and the Digital Library Program. The TICFIA grant will enable us to launch a major archive that is flexible and expandable so that it can grow synergistically with developing ethno-historical video collections. We expect that project development will not be fully complete at the end of the four-year grant period. Some holdings will remain to be digitized and encoded, particularly for new overseas partners. The document delivery capabilities will also be in continuous development and will benefit from further refinement and enhancement. In fact, by definition, Project CAMVA will never be "finished." IU intends to continue to maintain CAMVA and to update applied archival practices as specific technologies become obsolete. To summarize: in view of the multi-tiered benefits resulting from Project CAMVA, this cost-effective project compiles resources from numerous offices at Indiana University.

*b) Are costs reasonable in relation to the number of persons to be served by the project?*

A bilingual (English and Spanish) web site will be created that allows Internet users to search, browse and view content from the collections in CAMVA, as well as providing background and general information on the project. Since the internet audience will include students and scholars from throughout the United States as well as Mesoamerica, we are convinced that this project's costs are indeed reasonable in relation to its potential audience and the value they will receive from it.

*c) Describe the support from the lead applicant organization.* Project CAMVA will use the facilities of the Indiana University Digital Library Program. The Indiana University Digital Library Program (DLP) (<http://www.dlib.indiana.edu/>) is dedicated to the selection, production, and maintenance of a wide range of high quality networked resources for scholars and students at Indiana University and elsewhere, and supports digital library infrastructure for the university. The DLP is a collaborative effort of the Indiana University Libraries, the Office of the Vice President for Information Technology, the School of Library and Information Science, and the School of Informatics. The DLP's current facilities include the Digital Media and Image Center (containing equipment for image, audio, and video capture), the Library Electronic Text Resource Service, and an extensive server infrastructure for support of digital projects, with life-cycle replacement funding for hardware and software. DLP staff provides expertise in planning, creating and maintaining digital projects. The DLP is also a partner in the EVIA Digital Archive project (<http://www.indiana.edu/~eviada/>), which is developing an infrastructure to support the digitization, annotation/cataloguing, storage, and delivery of high-quality digital video from ethnomusicology field collections.

The IU Digital Library Program is currently embarking on a project to develop an integrated digital library infrastructure for the university, consisting of a Digital Library Repository Service, based on the Mellon-funded Fedora software, plus a suite of web user interfaces and tools to support ingestion of, management of, and access to a wide variety of digital objects and collection types

(image, audio, video, text). This integrated DL infrastructure will make use of a number of existing IT infrastructure components at IU, including streaming media services, and the MDSS.

Access to networked information resources is supported at Indiana University by the data center services of University Information Technology Services (UITS). The UITS data center operates 24 hours a day, seven days a week to provide students, faculty, staff, and the international scholarly community with continuous access to university information resources. Through a regular program of upgrade and replacement, UITS maintains the integrity of IU's hardware, software, and storage media. Information resources of long-term or permanent value are kept current as part of this upgrade and replacement cycle. UITS and the Indiana University Archives have participated in the research program of the National Historic Publications and Records Commission, studying means and methods of preserving digital content. To date, and in practice, our most reliable means of preservation has been a combination of routine content copying (to preserve against media decay) and periodic content conversion, as part of the equipment or application upgrade cycle (to preserve against hardware or software obsolescence).

Indiana University's faculty, staff, and collaborating departments will devote significant time and effort to ensuring fluidity among all participating institutions. The project will be able to use the facilities of the CSHM and CLACS (see appendices). These practices, along with the institution's commitment to maintaining a strong scholarly record, will assure preservation and continued access to networked information resources.

*d) Describe ongoing post-Federal funding potential.* The long-term viability of CAMVA is insured in large part by the ongoing efforts of The Indiana University Digital Library Program (DLP). IU recently implemented an integrated massive data storage system <http://www.indiana.edu/~dssg/> based on the HPSS (High Performance Storage System) software developed by IBM and several U.S. government laboratories <http://www5.clearlake.ibm.com/> and IBM and StorageTek tape and robotic tape silo technologies. This centrally managed system is intended to provide a data storage infrastructure for the entire university that supports the storage requirements of both administrative and academic systems and users, including digital libraries. The university provides mirroring capability between tape silos at Bloomington and Indianapolis sites for purposes of disaster recovery. We intend to use the HPSS system to store copies of archival digital image files in the CAMVA collection, in addition to retaining the DVDs provided by the digitization vendor. Access versions of files will be stored on disk on IU Digital Library Program (DLP) servers, under the management of IBM Digital Library server software presently installed at IU, and will be routinely backed up onto tape. Our most reliable means of digital preservation has been a combination of routine content copying (to preserve against media decay), and periodic content conversion, as part of the equipment or application upgrade cycle (to preserve against hardware or software obsolescence). These practices will be routinely employed for digital content in the CAMVA collection. (See Appendix for further detail about the Digital Library Program.

## **8. Management Plan (10 points)**

*a) Describe the extent to which the management plan is adequate to achieve the objectives of the project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing this project.*

We have developed a project plan that will enable us to achieve the objectives of the project on time and within budget. The project will be managed by a team comprised of the Project Manager, the Co-directors, and Advisory Group. The daily operation of the project will be the responsibility of the Project Manager, working with the Project Programmer and other members of the project team, CLACS, the CSHM, and the DLP. The management plan builds upon the expertise of scholars, librarians, archivists, and information technologists at Indiana University and at our partner institutions. Indiana University has eight years of experience planning and

implementing projects to digitize analog information resources, then catalogue, store, deliver, and preserve them for future generations of users.

The project is divided into four phases: 1) selection of films and video recordings for digitization; 2) digital conversion; 3) cataloguing and metadata creation; and 4) access. **Phase 1: Selection of Films and Video Recordings**

In the first phase of Project CAMVA, physical archives will be assessed through a collective analysis by researchers at IU, IHNCA, MUPI, and CIESAS. Special attention will be paid to copyright issues. Project CAMVA will select materials from over 2,500 hours of documentary films and videos including raw footage and newsreels of incalculable historical value for the historical reconstruction of contemporary Mesoamerican cultural history.

**Phase 2: Digital Conversion.** We plan to convert approximately 450 hours of films and video recordings from the three archives to digital format. Each video recording will be converted both to DVD-R and to an MPEG-2 file at approximately 5 Megabits/second. Two DVD-R discs will be produced for each recording, one for return to the local archive and the other to be housed at Indiana University in the Main Library Media Center. The MPEG-2 file will be burned on a data DVD-R and also shipped to IU. Because video digitization and conversion requires a fairly high level of skill, we plan to utilize local video conversion vendors in each country to complete this work. The Project Coordinator, in consultation with the IU Digital Library Program's Digital Media Specialist and video experts from University Information Technology Services, will work with representatives at each of the three archives to develop specifications for the digital conversion work that can be provided to the local vendors.

Upon receipt of the data DVD-R discs containing the digitized MPEG-2 video files, the Project Coordinator will load these files onto IU servers, where they will be transcoded to create derivative versions for streaming delivery to users. The master MPEG-2 video files will be placed in IU's Massive Data Storage System (MDSS), which provides long term storage for content from across the institution. The compressed derivative video files will be placed on IU's streaming media servers, managed by the Digital Media Network Services group in University Information Technology Services (UITS).

Our current plans are to create several MPEG-4 files at different bitrates appropriate to different end-user network configurations (i.e. Internet2, cable/DSL, dial-up), to be made available via Apple QuickTime Streaming technology. However, we plan to evaluate various format options using representative source content from the archives to make a final selection of format. IU's streaming server infrastructure is capable of delivering content using QuickTime, RealMedia, and Windows Media technologies.

The video files will be quality-checked when they arrive at Indiana University. We will specify that they include a checksum file and we will also perform a visual check of each file. Someone from the project staff will also view all DVDs to insure that the transfers have been completely without error.

**Phase 3: Cataloguing and Metadata.** In order to improve access to the important video content being digitized by this project, we must also enable its discovery by potential users through the creation of descriptive metadata. Project CAMVA will build upon the metadata approach being taken by the EVIA Digital Archive project, a partnership between Indiana University and the University of Michigan. The EVIA project has developed a Video Segmentation/Annotation tool which allows users to divide a video into a hierarchy of segments (scenes, events, and action items) and then create descriptive metadata for the entire video and for each of the segments. This tool generates a metadata document in METS (Metadata Encoding and Transmission Standard) which contains MODS (Metadata Object Description Schema) records for each of the descriptive metadata records. Using the programmer hired on this project, we plan to adapt this tool for use on the

CAMVA project, giving it a Spanish language interface, adapting it to work with MPEG-2 files or DVD discs as video source content, and modifying it to support the specific MODS fields and controlled vocabularies and thesauri determined to be appropriate for this project's content.

Consultants hired to work at each of the three archives will then use this tool to create MODS descriptive metadata records for each digitized video recording, following guidelines established by the Project Coordinator with assistance from the Digital Library Program's Metadata Librarian, as well as to create more detailed segmentation and annotation for a portion of the video recordings. In cases where the archives already have a system of archival description or cataloguing for their materials, the Project Coordinator will work with them and with the Project Programmer and Metadata Librarian to try to develop means of mapping their existing metadata into MODS as a starting point and/or to map the MODS metadata back to their local system.

The MODS/METS records will be sent to Indiana University, where they will be used to support searching and browsing of the video content on the project web site (see *Access* below). The item-level MODS records will also be used to generate preliminary MARC records, which will then be enhanced by the Media Cataloguer hired for the project by the IU Libraries for inclusion in IU's online catalogue IUCAT as well as OCLC WorldCat.

The language of the MODS metadata records created by the archives is an issue that must be further studied and addressed by the project, as if the metadata is going to be integrated into local systems at the archives, it would likely need to be in Spanish. However, if we want to disseminate the records for the materials through US library mechanisms such as MARC, they will need to be in English.

Use of consistent controlled vocabularies for subject description, geographical names, etc. will be critical to the usability of this metadata for end-user searching and browsing. The Project Coordinator will work with the three archives and in consultation with the Digital Library Program's Metadata Librarian to select appropriate English and Spanish language controlled vocabularies for use in the MODS records. Vocabularies that will be evaluated for use include Library of Congress Subject Headings, the Getty Thesaurus of Geographic Names, the Bilindex translations of Library of Congress Subject Headings <<http://www.floricantopress.com/bilindexUsers.htm>> and the Autoridades de la Biblioteca Nacional de España.

We will also adapt and use tools and approaches for the creation of technical and administrative metadata from the EVIA project as appropriate. **Phase 4: Access**

The fourth phase of Project CAMVA will focus on access to the bibliographic data we will have compiled and created and to the digital video recordings we will have made from the films and videos in the collections of our partner institutions.

A bilingual (English and Spanish) web site will be created that allows Internet users to search, browse and view content from the collections in CAMVA, as well as providing background and general information on the project.

We will make use of the Java web application currently being developed as part of the EVIA Digital Archive project as a starting point for this system. The EVIA user access application allows for browsing and searching of video content based on the metadata records for each item. Users can do a general keyword search across the full text of the records, or search or browse on specific fields, including title, subject, date, etc. This application uses the XML Database (XDB) capabilities of the Oracle9i relational database management system in place at Indiana University to index and search the XML-based METS/MODS metadata. The Project Programmer will work on extending and customizing the EVIA access application to support the specific metadata attributes and controlled vocabularies selected for use in CAMVA, as well as to support a multilingual interface.

As noted above, access to the information about the DVDs and the online collection will also be available through IU's online library catalogue IUCAT and OCLC WorldCat. The DVDs

themselves will be housed in the Indiana University Main Library Media Center, along with nearly 400 other video recordings on Central America and Mexico.

b) *Describe the extent to which the time commitments of the project director and principal investigator and other key project personnel are appropriate and adequate to meet the objectives of the proposed project.*

Numerous key personnel will assist the four Project Co-Directors (see Section 5) in this project. In addition to those mentioned previously, **Jon Dunn**, DLP Associate Director for Technology, will provide overall coordination of DLP participation in CAMVA and will provide a point of coordination between the CAMVA and EVIA projects. The Digital Media Specialist (position currently vacant) will advise the project on digitization procedures and standards, on video file formats, and on technical metadata. **Jenn Riley**, Metadata Librarian, will advise the project and assist the Project Coordinator on the development of an overall metadata approach for the project, including the adaptation of the EVIA metadata system and tools, mapping from existing metadata/cataloguing, and the selection of controlled vocabularies. **Randall Floyd**, Digital Library Programmer/Database Administrator, will assist the Project Programmer with database design and configuration needs to support the development and operation of the Segmentation/Annotation Tool and the user web access application.

c) *Describe the mechanisms for ensuring high quality products and services from the proposed project are adequate.*

The project and management plans described above, supported by the budget and budget narrative, reflect the years of experience that have gone into this project. They build upon expertise in many areas – scholarship and teaching, film and video collection-building and archiving, cataloguing and metadata creation, the development of digital library systems, and more. All aspects of the project are designed to insure that the resulting products and services meet the needs of our intended audiences. The following evaluation plan further demonstrates our commitment to user-centered design and development. We are confident that the combined resources of the Indiana University partners working with our distinguished international partners provide all of the necessary ingredients for a successful project.

## **9. Project Evaluation (10 points)**

a) *Provide a plan for evaluating the effectiveness of the project.*

Our project has four primary objectives: 1) to identify, preserve and provide access to regionally representative historical, socio-cultural and ethno-linguistic video recordings from physical archives in Central America and Mexico and that are not accessible in the United States; 2) to support the collaborative cataloguing of video collections at the three partner institutions outside the United States; 3) to develop and implement interactive and user-friendly web-based methods of disseminating up-to-date information; and 4) to develop educational material for cultural, geographic, and less taught languages. Our evaluative measures will focus upon the process and the products of our project. All work will be done in accordance with library and archival standards for cataloguing and metadata creation and the digitization of video recordings.

For the first objective, we will measure success by completing the process of selecting video recordings for digitization and completing the digitization according to our established specifications. For the second objective, we will measure success by the completion of item-level bibliographic records for all of the video recordings included in the project as facilitated by the cataloger's tool we will be developing. The ongoing use of this tool by at least one of the

participating institutions will serve as a benchmark for measuring success. The third objective relates to the usability of the video catalogue that we create and the ability of users to access content from our web site. During the development process we will conduct a formative evaluation of the web site. The evaluation will involve work with users from all four countries involved in the project, to ensure that the site and its content meets the needs of a wide variety of users. The project coordinator, working with staff from the Digital Library Program, will lead a Web development team, selecting appropriate user-centered activities to help guide Web design and evaluation, as well as planning, conducting and interpreting the results of user-centered activities. These methods were most recently used successfully in a previously-funded IMLS project, *The Charles W. Cushman Photograph Collection*, and *Letopis' Zhurnal'nykh Statei, 1956-1975*, an online periodical index project funded by the a previous TICFIA grant from the U.S. Department of Education.

We will measure the actual use of our resource once it is available by referring to our user logs, documenting user feedback and conducting summative evaluation of the Web site, using similar methods as those employed during the formative evaluation. For the fourth objective, we will measure the availability of materials listed in the database that might be used to teach less commonly taught languages from Mexico, El Salvador, and Nicaragua and their use by classroom teachers. In order to measure the impact of our resource upon users, we will also use periodic online surveys to determine the users/customers for the materials, in what context, and their level of satisfaction. *b) Indicate the criteria to be used to evaluate the results of the project.*

The project has three overarching goals: 1) To create an audio/video digital archive from ethnographic and documentary recordings stored at physical archives in Mexico, El Salvador, and Nicaragua with other countries incorporated in subsequent phases; 2) To make this archive fully searchable and available to networked libraries for research and instruction; and 3) To contribute to methodological development in digitizing, coding, and accessing audio-visual data, including providing searchable and retrievable interface, available over the web using bandwidth capability of Internet2. The project will be a success if the following criteria are complete: 1) digitization of 450 hours of at-risk videos and films from our partner institutions; 2) create bibliographic records for each digitized video recording; and 3) create a usable web site with bibliographic records and some digital content.

*c) Describe the types of data to be collected and analyzed; objective evaluation.*

We will gather and analyze the following data: 1) the number of films and videos that we digitize; 2) the number of bibliographic records created; 3) the number of users who visit our web site and use our materials online; and 4) the number of users at Indiana University and the partner institutions who use the DVDs in the classroom and for other instructional purposes.

The project also requires more qualitative measures: the satisfaction of the partners with project completion; the satisfaction of users with our products and services; and various ways in which faculty and students might use the materials in the collection. *d) Explain the methodology that will be used to determine if the needs for which the project is designed are being met.*

The methodology will involve multiple levels of oversight and evaluation. The Project Directors at IU will meet periodically with the Project Coordinator and with the Advisory Board. The Project Directors will stay in constant contact with the regional work groups at the three partner institutions. Annual workshops will evaluate the progress of the proposal. Most importantly, the Project Coordinator will meet with key personnel and coordinators at their sites four times per year with the express purpose of ensuring the advance of the project. (See Part 4, Section for a fuller methodological discussion).

Members of the project team from the Digital Library Program have attended IMLS training in Outcome-Based Evaluation. We will use the methods to develop measurable indicators of the project's success.